

Creating a Friendly Future

2016 Sustainability Report

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Our future	friendly	story	
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Our passionate customer promise

Our success is built on listening, learning and embracing new ideas to delight our clients, every day

We're on a journey to redefine what it means to be a technology company in our ever-changing digital society

Our passion is improving the lives of our customers and the world in which we live

Simply stated, we are deeply committed to putting our customers, communities and fellow team members first



Our winning strategy

We love being world leaders and we have the grit to be meaningfully different

We are highly competitive and draw inspiration from our compelling vision

We are unleashing the power of the Internet to deliver the best solutions to Canadians at home, in the workplace and on the move...

...enabling remarkable human, social and business outcomes every step of the way



Our values elevate our brand promise

A friendly future is created by having the courage to innovate

Inspiring a passion for growth

Embracing change and seizing opportunity

and

Demonstrating spirited collaboration across a diverse and inclusive team





Our inspiring social purpose

Together, we are bridging the digital divides

We are enabling remarkable health outcomes

We are caring for the planet our children will inherit

We are advancing educational opportunities for our future leaders and We are keeping people safe in our digital world





Our heartfelt community promise

We give where we live... and what a difference it makes

Together, we are making the future a little more friendly

Championing social change to build a more compassionate world and

Leveraging our technology to help youth rise above and reach their full potential

We are creating extraordinary outcomes thanks to the passion of our team and the trust of our customers



Ourapproach

Strategy

Creating remarkable outcomes for our customers and communities

By harnessing the power of our technology, the reach of our brand and the hearts of our team, we are driving business value and addressing pressing social challenges in Canada.

We believe in the harmonious relationship between our team and the health and prosperity of our communities. For this reason, we take a balanced approach to our sustainability strategy development, focusing on:

- Digital Economy: connecting customers with the information and people that matter most to them
- Health: empowering better health knowledge, management and outcomes

- Environment: addressing climate change and improving resource productivity
- Education: providing opportunities for our future leaders
- Privacy and Trust: committing to respect individual privacy and maintaining transparency about how we handle data
- Community: fostering more inclusive and equitable communities.

Our sustainable customer offerings and solutions advance not only our own, but our stakeholders' sustainability goals, by:

- Bridging socio-economic and geographical digital divides
- Enabling improved health outcomes
- Promoting and implementing environmental sustainability initiatives
- Advancing unprecedented educational opportunities
- Keeping citizens safe and secure online
- Building stronger, more caring communities by giving where we live.

Supported by strong sustainability governance and culture, committed leadership and long-term goals, our engaged, diverse and inclusive team drives our sustainability performance. Through ongoing engagement with stakeholders we are accountable for the sustainability of our operations throughout our entire value chain, particularly when it comes to resource productivity.

Additionally, as signatories to the <u>United Nations Global Compact</u> (UNGC), and by having our reporting aligned to GRI guidelines, we are using international frameworks that both inform our strategy and help us transparently communicate our progress to stakeholders. This allows TELUS to achieve two important goals:

- 1. Integration of our sustainability strategy with universal principles and international standards
- 2. Providing stakeholders with focused, comprehensive and transparent information about our sustainability performance.

Targets and Sustainable Development Goals

Seeking better social outcomes

Discussion in this section, such as statements about our long term goals, should be read together with the cautionary note under *Forward-Looking Statements* in this report.

In 2016, we met nine of 15 sustainability targets aligned to our material issues. These results are shared throughout this report. We exceeded both of our environmentally focused targets for energy and paper purchase reduction as well as three of four Community Investment related targets. There remains an opportunity to continue to improve the way we communicate our sustainability story, so it better resonates with our stakeholders.

We met our employee related target for safety, realizing our best results in a number of years thanks to a diligent focus on safety in the workplace. We once again achieved engagement levels that place TELUS in the top quartile of all employers in 2016, although our results were below threshold.

The 2015-2016 <u>CCTS annual report</u> showed that TELUS received the fewest complaints accepted by CCTS among the national telecommunications service providers and remains a leader in customer satisfaction amongst peers, however, we fell just short of our target. Our number one corporate priority remains to deliver on our future friendly[®] brand promise by putting customers first, enhancing reliability, and pursuing global leadership in the likelihood of our clients to recommend our products, services and people.

Also in 2016, we saw a slight decrease in our Integrity Index result, primarily attributed to small adjustments in index calculation methodology. We met three of four consolidated targets and all four of our original wireless and wireline segment financial targets. Please see our Annual Report for details.

For 2017 and beyond, we will focus on social outcomes in the following areas:

- The digital economy
- Transforming healthcare
- Caring for our environment
- Providing pathways to education for children and youth
- Creating a sense of security, protection
 and respect of privacy
- Fostering more inclusive and equitable communities.

We also have aligned these social outcome objectives to relevant <u>Sustainable Development Goals</u>. We believe our strategy and performance in these focus areas will assist us in realizing these specific global goals.



Sustainable Development Goals

In late 2015, TELUS joined many other Canadian companies to celebrate the launch of the 17 United Nations (U.N.) <u>Sustainable Development Goals</u> (SDGs) through our patron member support of the <u>Global Compact Network Canada</u>. The SDGs include transformative global targets for participating countries, including Canada, that intend to shape policy development, organizational strategy and stakeholder engagement through 2030.

We believe TELUS is in a position to contribute directly to six of the goals aligned to our current 2020 targets, in a meaningful way. Please see the table below on how TELUS is contributing to the Sustainable Development Goals.

SDG	TELUS Contribution	Impact
3 GOOD HEALTH AND WELL-BEING	TELUS Health solutions give health authorities, providers, physicians, patients and consumers the power to turn information into better health outcomes.	Strengthen the capacity within Canada for early warning, risk reduction and management of national health risks.
4 QUALITY EDUCATION	In 2016, TELUS invested nearly \$3B in capital to wireless and wireline broadband network infrastructure expansion and upgrades, to provide faster available Internet speeds and greater capacity, connect more homes and schools and enhance our healthcare solutions.	Increased number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	TELUS Internet For Good program Expansion of our 4G LTE wireless broadband network with LTE-Advanced covering 74 per cent, our LTE network covering 97 per cent and our 4G HSPA+ network covering 99 per cent of the Canadian population.	Increased access to information and communications technology and strive to provide universal and affordable access to the Internet.
11 SUSTAINABLE CITIES	TELUS has contributed more than \$400M to local charities since 2000 TELUS collaborates with governments in preparing for emergencies and disasters, provide services and equipment to community emergency operations, with TELUS employees active in government emergency operations centres during emergencies and disasters.	Reduce the number of people affected by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
13 CLIMATE	TELUS has climate change goals of absolute reductions from 2010 to 2020: Reducing our absolute energy consumption by 10 per cent Reducing our absolute GHG emissions by 25 per cent. TELUS supports UNGC principles on the environment.	Integrate climate change measures to support national policies, strategies and planning.
17 PARTNERSHIPS FOR THE GOALS	Since its inception in 2013, more than 1.7 million Canadians have benefitted from TELUS WISE (Wise Internet and Smartphone Safety) programming in partnership with local schools, police agencies and the WE charity.	Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

Stakeholder inclusiveness

Listening to our stakeholders influences our sustainability strategy

We rely on our stakeholders to provide input that helps us form our sustainability strategy, material issues and subsequently, our progress reporting.

In each section of this report, we describe who our stakeholders are and how we engage with them to inform our sustainability strategy and reporting. The following groups have been identified as TELUS stakeholders through an ongoing formal internal review process and by collaborating with independent third parties:





TELUS believes that part of being sustainable means listening to and considering the expectations of people and groups that we impact through our operations or who impact us. Fostering these relationships is critical to the ongoing success of our business.

We have procedures in place that allow us to integrate stakeholder engagement and related outcomes within our governance, strategic planning and decision-making processes and our operations.

In 2016, we initiated several stakeholder engagement activities that have not only formalized our approach to stakeholder engagement, but have set the stage for us to create a broad stakeholder engagement policy, which we hope to publish in early 2018. As a first step, we launched an internal sustainability survey that focused on how employees feel about:

- Our sustainability strategy
- The effectiveness of our reporting
- Our sustainability team's performance supporting individuals and teams with integrating sustainability considerations into their business unit specific strategic planning, decision making and operations.

What we learned was more than 93 per cent of employees had a good understanding and awareness of our sustainability strategy and 70 per cent had read our Sustainability Report. These results are encouraging and provide us with a focus on driving to increase the levels of readership and understanding of our sustainability strategy and report in 2017.

We sent a similar online survey to a broad sample of external stakeholders with a greater focus on prioritized groups such as customers, shareholders and suppliers. We achieved a 51 per cent response rate and had three key learnings:

- Construct our report aligned to our areas of focus and refine material issues
- Transition targets to longer-term goals and align to the Sustainable
 Development Goals
- Create an 'executive summary' version of the report.

We used this feedback to refine our 2016 report, and will also make a new executive summary report available for download.

Additionally, in January 2017, we convened a group of key stakeholders as a pilot group with the intent of establishing an ongoing sustainability expert panel. Led by a third-party, we invited representatives from 10 stakeholder groups to join us in a discussion about our sustainability strategy and reporting. The participants represented the following stakeholder groups:

- Customers
- Employees
- Shareholders



- Responsible investment organizations
- Suppliers
- Local government
- Academic organizations
- Non-government organizations
- Community partners
- Media/influencers.

Prior to the event, we asked participants to review our Sustainability Report and also complete the same survey that was sent to other stakeholders as described above.

Aside from the learnings about our approach and the engagement process, we received some valuable insight from this diverse group of stakeholders who were keen to share their thoughts, perspectives and insights on our strategy and reporting.

The key themes discussed included:

- How organizations have difficulty embedding sustainability into their operations
- How stakeholders are expecting organizations to seek new ways to communicate, inspire and contextualize their goals and progress
- How TELUS sees technology as a means to address social challenges
- How investors and other groups should be increasingly concerned
 with sustainability-related risk
- Compliance with global and national regulations and how they are an emerging sustainability and reporting risk
- Additional opportunities for collaboration, particularly with suppliers and industry or other associations to advance sustainability goals.
- We also tracked the following action items:
- Reduce the number of material issues and focus the sustainability and business strategy on prioritized issues
- Continue to add context to report and focus on long-term objectives

- Find ways to make product stewardship and creating solutions that enable stakeholders to meet their sustainability goals a priority
- Refine reporting and communication, so stakeholders understand how TELUS business strategy supports its social purpose.

In 2017, we plan to take action on this feedback and report progress as it happens as well as in our next Sustainability Report. We also intend to reconvene our expert panel in 2017, to share results of our progress and gain further insight.

In 2017, we will continue to:

- Initiate ongoing stakeholder engagement activities and implement ideas and feedback
- Participate in industry-related dialogues, workshops and internal discussions
- Complete regular research, benchmarking and media-scanning activities.

Material issues

A friendlier way to report on sustainability

In support of our ongoing sustainability strategy governance, we regularly assess the material issues that matter to our stakeholders and TELUS. As described in the stakeholder inclusiveness section of this report, in early 2017, we completed our latest assessment, which began in 2016. Our assessment process took a structured approach that included:

- Leveraging recent formal materiality assessments
- Listening to feedback from both formal and informal stakeholder
 engagements
- Ongoing benchmarking, research and media scans
- Assessing direct input received via our communication platforms, including this report
- Regular internal reviews and discussions.

This approach helps us to monitor stakeholder concerns, validate the current state of our reporting and identify emerging issues.

One of the outcomes of this process was an understanding that all of the identified issues are important to our stakeholders and to TELUS, and plotting the issues in a matrix ranking the issues from low to high in terms of importance was not resonating with stakeholders.

As a result, we have grouped our material issues into three categories related to stakeholder expectations and aligned with our business focus:

1. Foundational: issues that must be focused on, as well as material issues for which our stakeholders (i.e. customers, employees, shareholders and regulators) hold us accountable. These issues include:

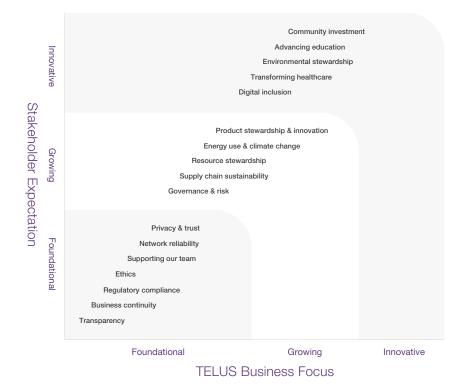
- Transparency: building trust and stakeholder confidence
- Business continuity: being resilient when emergencies happen
- Regulatory compliance: planning for and being flexible to change
- Ethics: holding ourselves accountable to the highest standards
- Supporting our team: investing in our greatest asset
- Network reliability: minimizing outages and responding quickly
- Privacy and trust: keeping people safe in our digital world.

2. Growing: issues that are taking on greater strategic importance or matters where stakeholder expectations are rising, as well as emerging issues from a local, industry or global perspective. These issues include:

- Governance and risk: building effective practices, standards, frameworks and disclosure
- Supply chain sustainability: understanding risk and impact, and taking responsibility for outcomes
- Resource stewardship: managing and reducing our use of finite natural resources
- Energy use and climate change: reducing emissions from our buildings, network and fleet
- Product stewardship and innovation: providing solutions that help customers meet their sustainability goals.

3. Innovative: issues that are at the heart of our social purpose; we have structured our report based on these critical elements of our business strategy:

- Digital inclusion: together, we are bridging digital divides
- Transforming healthcare: enabling better health outcomes for Canadians
- Environmental stewardship: caring for the planet our children will inherit
- Advancing education: providing opportunities for our future leaders
- Community investment: living up to our community promise to give where we live.





Creating shared value

We are focused on establishing long-term economic growth in our core wireless and wireline business for our investors, customers, employees, suppliers and the communities where we live, work and serve. TELUS products and services enhance the lives of Canadians, support the success of our customers and contribute to the development of sustainable communities as well as Canada's digital economy.

In 2016, we contributed to the economy by:

- Providing employment to our 25,500 Canadian employees, and compensation of over \$2.8 billion
- Paying in excess of \$2.2 billion in taxes to multiple levels of government
- Paying approximately \$1.6 billion in dividends and interest to our investors, which supports the pensions and savings of Canadians
- Contributing over \$42 million and 870,000 volunteer hours to charitable and community organizations
- Spending close to \$3 billion on capital investment programs, including capitalized labour, and \$53 million in spectrum renewal fees
- Driving innovation through information and communications technology, enhancing the connectivity of Canadian businesses, consumers and governments
- Investing in the most advanced communications technology available globally to deliver a superior experience to our customers.

See section nine of the MD&A in our 2016 Annual Report for a discussion on trends, outlook and assumptions.

Shareholder return

Staying connected with our stakeholders

Our discussion in this section is qualified in its entirety by the cautionary note under *Forward-Looking Statements* in this report.

We believe in open and transparent communication, which is why we provide comprehensive disclosure information to current and potential investors and the public, regularly and in a variety of ways. In fact, our award-winning disclosures are recognized for their transparency. In addition to sharing this Sustainability Report, we communicate in the following ways:

- Management's discussion and analysis (MD&A); financial statements; related regulatory filings; and quarterly investor conference calls and webcasts related to quarterly financial and operating results
- Regular news releases around corporate and marketing developments
- Our annual disclosure package, which includes the Annual Report, Information Circular, Sustainability Report and Annual Information Form
- Meetings with shareholders and shareholder advocacy groups
 (such as the <u>Canadian Coalition for Good Governance</u>) to discuss
 governance
- Annual shareholder meetings held in locations across Canada with an internationally accessible live webcast and feedback survey, so that shareholders can provide comments or ask questions via email to <u>ir@telus.com</u> before, during or after the meeting
- A 1-800 investor line, <u>ir@telus.com</u> and <u>ceo@telus.com</u> mailboxes, and confidential ethics hotline and website to encourage shareholders and the public to contact us
- Direct lines to investor relations and media relations executives
- Our Board email inbox provides shareholders and other stakeholders a direct way to communicate with the Board between annual meetings.

Our Board believes that regular communication is an important part of creating an open and constructive dialogue with our shareholders. Consistent with our Shareholder Engagement policy -- adopted as a stand-alone policy by our Board in 2015 -- we continued to actively engage with shareholders in 2016. Our focus is on maintaining timely, ongoing communication with stakeholders to help them make sound and informed investment decisions.

We held our 2016 annual meeting in Vancouver, British Columbia, where we reviewed our operating results for 2015, and addressed shareholder inquiries. The meeting was attended by more than 300 participants, and another 900 guests joined virtually via webcast, with shareholders voting on corporate resolutions. All board members were elected with a minimum of 93 per cent of votes, and all motions passed by a minimum of 89 per cent with shareholders re-affirming their support for the Board and our approach to executive compensation.

TELUS engages with current and potential investors through regular meetings, by responding to day-to-day investor and analyst inquiries, and participating in investor conferences. In 2016:

- We held four <u>conference calls</u> relating to our quarterly results, which were simultaneously available via webcast
- Executive management participated in numerous investor conferences and tours in Canada, the United States and Europe.

The quarterly conference calls and many of the events and presentations can be found on <u>telus.com/investors</u>.

"Our dedication to open and transparent communication has helped us better understand the needs of stakeholders and is further evidence of our commitment to excellence in stakeholder engagement."

As of February 2017, 19 equity analysts cover TELUS and regularly issue investment reports to their clients. To facilitate additional investor meetings and reduce travel expenses and time, we use Cisco TelePresence, a high-definition video-conference service, between our locations across Canada. We also facilitated meetings between socially responsible investors and TELUS leaders. Discussions focused on corporate strategy as well as operational, financial and sustainability performance.

In 2016, TELUS continued to be recognized for excellence in corporate governance and reporting, including the following awards in 2016:

- Chartered Professional Accountants of Canada Overall Award of Excellence in Corporate Reporting, Award of Excellence in Communications and Media, and Award of Excellence in Corporate Governance Disclosure
- The TELUS 2015 Annual Report ranked 14th in the world in the 2016 Annual Report on Annual Reports by ReportWatch.



We continue to welcome shareholder feedback through our <u>ir@telus.com</u> inbox or through our 1-800 investor line.

Financial and operating highlights

In 2016, we reported strong financial and operating performance, in spite of economic challenges in Alberta. Our performance continues to be driven by our exceptional culture, customer service excellence, and transformational investments in our wireless and wireline broadband networks. These investments:

- Strengthened our competitive position, helping us attract new customers and retain existing ones
- Supported the return of significant capital to investors through our multi-year dividend growth and share purchase programs
- Enhanced our ability to better respond to the needs of other stakeholders through community investment, including 15 innovative regional TELUS Community Boards.

See sections one and five of the MD&A in our 2016 Annual Report. For more information on our 2016 performance highlights and 2017 targets, please see our annual report.

Consolidated performance

In 2016, our team's efforts to elevate the client experience, along with the continued execution of our national data and wireless growth strategy, resulted in consolidated operating revenue of \$12.8 billion, up 2.4 per cent from 2015. EBITDA, excluding restructuring and other costs¹, increased by 4.9 per cent to \$4.7 billion. We generated earnings per share (EPS), growth of 6.6 per cent.²

We generated free cash flow¹ of \$141 million in 2016, a decrease of \$937 million. This can be attributed to higher capital expenditures to support generational network investments, higher restructuring and other costs, and higher cash income taxes and interest paid. These costs were partly offset by strong growth in EBITDA – excluding restructuring and other costs.

Continued expansion of our customer base continues to drive our performance, with profitable subscriber growth in both our wireless and wireline segments. We ended the year with 12.7 million³ total customer connections, up 1.4 per cent from 2015. This reflects our ongoing success adding new wireless, Internet and TV customers.

- 1 These are non-GAAP measures and do not have standardized meanings under IFRS-IASB. Therefore, they are unlikely to be comparable to similar measures presented by other companies. For definitions, see Section 11 of the MD&A in our 2016 annual report.
- 2 Reflects basic EPS adjusted to exclude the immediately vesting transformative compensation expense impact of 38 cents per share.
- 3 Subsequent to a review of our subscriber base, our 2016 opening wireless postpaid subscriber base was reduced by 45,000 and our 2016 opening wireline high-speed Internet subscriber base was increased by 21,000.

Targets

We continue to be guided by our long-term financial objectives, policies and guidelines put in place to maximize value to all stakeholders. With these policies in mind, our 2017 consolidated financial targets reflect continued execution of our successful and consistent national growth strategy focused on wireless and data. In each of the past seven years, we have met three of four consolidated financial targets, which has supported the return of capital to shareholders through our multi-year dividend and share purchase programs. For more information on our 2017 targets and assumptions, see our fourth quarter 2016 results news release, issued February 9, 2017, or our 2016 Annual Report.

Wireless

In 2016, TELUS expanded our postpaid subscriber base by adding 243,000 high-value postpaid customers, for a total of 7.6 million. This postpaid growth, combined with a Canadian industry-leading average monthly postpaid churn rate of 0.95 per cent, reflects our continued and intense focus on providing exceptional customer experiences.

Our wireless revenue grew 2.6 per cent in 2016, reflecting an increased customer base and a 2.6 per cent increase in monthly blended average revenue per subscriber unit (ARPU). Wireless EBITDA -- excluding restructuring and other costs -- increased 4.8 per cent.

2016 wireless results highlights:

- Network revenue of \$6.5 billion, an increase of 3.9 per cent over 2015
- EBITDA -- excluding restructuring and other costs of \$2.89 billion --, increased by 4.8 per cent
- Industry-leading lifetime revenue per customer of \$5,400, an increase of 8 per cent
- Industry-leading average monthly postpaid churn rate of 0.95 per cent.

Wireline

In 2016, we further expanded and enhanced our wireline broadband network, including connecting more homes and businesses to fibre-optic cable. We have more than 1 million subscribers from the more than 2.9 million Optik® capable homes in B.C., Alberta and Eastern Quebec. We were the first major carrier to offer symmetrical upload and download speeds of up to 150 Mbps, on TELUS PureFibreTM. This supported combined high-speed Internet and TV customer growth of 5.6 per cent. Our wireline revenue increased by 2.1 per cent. Wireline EBITDA, excluding restructuring and other costs, increased 5.1 per cent. For more detailed information and our 2017 targets and assumptions, see our fourth quarter 2016 results news release, issued February 9, 2017, or our 2016 Annual Report.

2016 wireline results highlights:

- Revenue of \$5.7 billion, an increase of 2.1 per cent over 2015
- EBITDA, excluding restructuring and other costs of \$1.7 billion, increased by 5.1 per cent
- TV customer base of 1,059,000, an increase of 5.4 per cent
- High-Speed Internet customer base of 1,655,000¹, an increase of 5.7 per cent.

¹ Subsequent to a review of our subscriber base, our first quarter 2016 beginning of period high-speed Internet subscriber base was increased by 21,000.

Contributing to the Canadian Economy

Strengthening the Canadian economy

TELUS helps strengthen Canada's economy through our purchase of goods and services. This supports Canadians and the companies they work for and invest in.

In 2016, we spent approximately \$8.4 billion on vendors, including goods and services tax and provincial sales tax. This spend represented 66 per cent of consolidated revenues. Approximately \$7.7 billion or 92 per cent of total vendor payments went to Canadian companies or multi-national companies with locations and employees in Canada.

Our spending and operations outside of Canada support the broader global communities where TELUS team members live, work and serve.

Vendor payments by location

\$ millions	2016	2015
Vendors with locations in Canada	7,715	7,156
Non-Canadian vendors	707	724
Total vendor payments	8.422	7,880

Paying taxes

Since 2002, we have paid taxes of over \$20 billion to federal, provincial, local and international governments, which in turn, support services for Canadians and other citizens in those jurisdictions where TELUS operates.

- When annual spectrum fees and spectrum purchases paid to Canadian regulators are added, our payment rises by \$5 billion to \$25 billion
- This amount increases by another \$8 billion when employee payroll remittances are factored in.

In 2016, TELUS remitted approximately \$2.9 billion to all levels of government. This included:

- Net payment of over \$589 million in federal and provincial corporate income taxes in Canada and over \$11 million in international corporate income taxes
- Payment of \$302 million in employer portion of payroll taxes, property and business, public utility and non-creditable/non-refundable sales taxes on goods and services acquired by TELUS in the operation of our business
- Sales taxes remitted of \$1.27 billion for goods and services taxes (GST), harmonized sales taxes (HST), Quebec sales taxes (QST), provincial sales taxes (PST), and international value-added taxes (VAT) collected from our customers. In addition, TELUS paid \$724 million for GST, HST, QST and VAT to suppliers on the acquisition of goods and services that was ultimately refunded by the applicable government authorities levying such taxes
- Payroll taxes withheld from employees and remitted to the federal and Quebec governments of \$672 million
- 9-1-1 taxes of \$19 million charged to customers and remitted to the governments in participating Canadian provinces for provision of emergency 9-1-1 services.

TELUS follows a Comprehensive Tax Conduct and Risk Management Policy ("the Tax Policy") that has been approved by the TELUS Board of Directors. The Tax Policy, which is consistent with our overarching <u>Code of Ethics and</u> <u>Conduct</u>, outlines the principles of employees' responsibilities and professional conduct. Our Tax Policy outlines our requirement to comply with tax laws while considering our rights as a taxpayer in the various jurisdictions where we operate. The Tax Policy also provides a framework for assessing tax risks, taking into account potential financial impacts to the company as well as impacts to our customers, reputation, brand and employees.

TELUS' philosophy regarding tax can be summarized as follows:

- We pay tax that is legally due and observe the provisions of the relevant law and related jurisprudence
- Where our interpretation of the tax laws differs from that of the tax authorities, we commit to resolving these issues in the most cost-effective and timely manner, while seeking to maintain a long-term, open and constructive relationship with the tax authorities
- We will not take any position that clearly falls outside of the relevant governing legislation and prevailing jurisprudence.

In accordance with the Tax Policy, all exchanges of goods, property and services between TELUS' companies are conducted for fair market value consideration. Transfer pricing between the companies is based on comparable terms and the commercial nature of the transactions. For details on TELUS' 2017 tax assumptions, please see section nine of our MD&A in our 2016 Annual Report.

Dividend growth

In 2016, TELUS returned more than \$1.2 billion to shareholders, including \$1.1 billion in dividends paid and \$169 million in share purchases. During the year, we raised our quarterly dividend twice, most recently in November, representing an annual increase of approximately 10 per cent. This represents 12 increases since May 2011, when we announced our first three-year dividend growth program targeting two dividend increases per year of circa 10 per cent annually. In May 2016, we once again extended this program to the end of 2019, targeting two increases per year of circa seven to 10 per cent annually. Our discussion in this section is qualified in its entirety by the cautionary note under *Forward-Looking Statements* in this report. Please also see section 4.3 of the Management's discussion and analysis in our 2016 Annual Report. TELUS has returned approximately \$14 billion to shareholders since 2004, including \$8.7 billion in dividends and \$5.2 billion in share purchases, together representing \$24 per share.

\$ in millions)	2016	2015	2014	2013
Corporate Income Tax Paid				
Canada				
Federal	319.6	146.6	254.7	247.6
British Columbia	105.8	57.7	83.9	85.2
Alberta	62.0	20.5	44.9	35.4
Saskatchewan	1.1	0.3	0.8	0.5
Manitoba	0.7	0.3	0.8	0.7
Dntario	52.8	17.9	36.7	31.9
Quebec	42.2	6.9	29.5	24.3
Atlantic Provinces	5.2	1.5	3.4	2.5
nternational	11.2	4.3	9.5	9.5
Total corporate income tax payments	600.6	256.0	464.2	437.6
Other tax payments				
Canada				
Employer portion of payroll taxes	136.8	139.6	138.2	123.9
Property and business taxes	108.6	107.2	105.7	103.2
Non-creditable/non-refundable sales taxes				
Federal	0.3	0.3	0.3	0.3
British Columbia	32.1	27.1	30.2	20.0
Saskatchewan	0.1	0.1	0.1	0.1
Manitoba	1.1	0.6	1.4	0.3
Dntario	0.8	1.3	1.5	0.0
Quebec	0.7	0.8	0.8	0.8
Atlantic provinces	0.0			
nternational	25.2	16.6	11.2	5.3
Provincial premium and capital taxes	0.0		-0.3	0.7
Quebec tax credits	-4.0	-20.8	-8.6	-4.7
Total other tax payments	301.7	272.8	280.5	249.9
Payroll taxes remitted	671.8	687.1	612.3	608.2
9-1-1 taxes and other payments remitted	26.3	25.9	16.0	7.8

(\$ in millions)	2016	2015	2014	2013
Sales taxes remitted ¹				
Canada				
Canadian GST and HST	865.5	838.8	803	810.1
British Columbia	176.4	166.3	156.3	115.1
Saskatchewan	5.6	5.5	4.5	4
Manitoba	4.9	5.0	5.3	4.9
Ontario	0.0	0.0	0.0	0.0
Quebec	214.0	215.9	209.6	196.8
Atlantic provinces	0.0	0.0	0.0	0.4
International VAT	3.2	4.1	2.4	3.9
Net sales taxes collected/remitted	1269.6	1235.6	1181.1	1135.2
Total Canadian taxes remitted	2830.4	2452.4	2531.0	2420.0
Total International taxes remitted	39.6	25.0	23.1	18.7

1 The Sales taxes remitted consist of GST, HST, QST, PST and VAT collected from our customers. In addition, TELUS paid \$724.4 million for GST, HST, QST and VAT to suppliers on the acquisition of goods and services that was ultimately refunded by the applicable government authorities levying such taxes.

(\$ in millions)	2016	2015	2014
Economic Value Distributed – consolidated			
Goods and services purchased	5,631	5,532	5,299
Employee benefits expense, excluding employee defined benefit plans expenses and amounts capitalized	2,846	2,590	2,401
Employer contributions to defined benefit plans	71	94	88
Capital expenditures, excluding spectrum licenses	2,968	2,577	2,359
Interest paid	510	458	412
Income taxes paid, net	600	256	464
Dividends declared for the holders of equity shares	1,091	1,011	935
Cash payments for spectrum licenses	145	2,048	1,171
Total	13,862	14,566	13,129

Collaboration

We choose our partners thoughtfully and in alignment with our environmental and social values. This helps us support our customers and team members who aim to make the most sustainable choices possible. Our commitment includes:

- Sourcing products and services responsibly
- Building and maintaining strong supplier relationships
- Providing customers with sustainable solutions and support
- Managing end-of-life and reuse of equipment and facilities.

Supply chain sustainability

Partnering for sustainable development

From product design to raw material sourcing by our suppliers, all the way to our customer's use -- and even reuse -- of our products, supply chain sustainability practices matter. We choose to work with suppliers who demonstrate a strong commitment to sustainable development by adopting meaningful ethical, labour, health and safety, and environmental principles in their organizations. By integrating these principles, our suppliers help to ensure the well-being of employees, contractors and communities.

We demonstrated this ongoing commitment to sustainability in our supply chain in 2016 by:

- Implementing initiatives to enhance customer experience and reduce costs
- Developing new processes to ensure supplier compliance with TELUS sustainability practices
- Initiating process improvements to divert waste and increase recycling
- Continuing partnerships with supplier diversity organizations and accredited vendors

• Further strengthening our supplier governance practices, with a focus on risk.

Environmental and social standards

TELUS adheres to strict internationally recognized environmental and social standards and we expect our suppliers to do the same. We identify and minimize environmental and social risks in our supply chain in several ways:

Critical Suppliers Corporate Social Responsibility Monitoring: in 2016, we engaged a third party vendor to monitor, identify areas of improvement, and collaborate on best practices in social responsibility and sustainability for all our critical suppliers. The monitoring and supplier assessment is based on a number of international standards including the Global Reporting Initiative, UN Global Compact and ISO 26000. The monitoring will be fully implemented in early 2017, with the goal of expanding the scope beyond our critical suppliers.

Supplier Code of Conduct: our suppliers have a contractual obligation to abide by the <u>TELUS Supplier Code of Conduct</u>. Our suppliers are expected to comply with all applicable environmental, labour and human rights laws and are encouraged to have a strategy, including policies and programs to manage and monitor compliance with these laws and international standards. For example, suppliers are expected to manage, monitor and reduce the environmental impact of the following:

- Consumption of resources (e.g., fuel, electricity, water, paper, etc.)
- Usage, handling and disposal of hazardous and non-hazardous wastes
- Release of contaminants into the air (e.g., greenhouse gas emissions, ozone depleting substances, volatile organic compounds)
- Release of contaminants into water and soil
- Recovery and appropriate disposition of materials

Environmental Management System: our suppliers are expected to be aware of <u>TELUS' Environmental Policy</u> and relevant aspects of our environmental management system, which is certified to the ISO 14001:2004 standard.



Regular audits: TELUS conducts regular audits of supplier agreements to validate that the applicable terms of our Supplier Code of Conduct are included.



6,400 network equipment parts

that were not sent for unnecessary repair, saving TELUS almost \$2.3 million

Incentives

We take an active role in managing our supply base through the entire procure-to-pay process. We seek out mutually beneficial relationships inclusive of special incentives for suppliers. Specific examples include:

- Offering longer-term contract commitments to allow suppliers to plan and manage their production and supply effectively
- Maintaining a strong focus on forecasting interlock with key suppliers to be certain both parties maximize investments in their supply chains and return incremental value to shareholders and customers
- Using proactive partnership models to evaluate and optimize our stranded network assets with a focus on profit sharing and environmental sustainability
- Forging relationships with like-minded suppliers who have environmental, social, business continuity and governance factors

built into their strategies, making certain our supply base is not only efficient but also robust and capable of meeting customer demands in crisis situations.

Programs and initiatives

We collaborate with internal and external partners to further integrate sustainability into our culture by implementing processes that ensure positive sustainability impacts on our operations. In 2016, our procurement and supply chain sustainability committee delivered improvements to suppliers' compliance with our requirements through improved supplier agreements and supplier selection questionnaires and evaluations.



10,650 reduction in repair volume

as a result of improved quality, diagnostics and customer support

120,798 wireless devices

that were returned and used in TELUS' after-market program



In 2016, several initiatives were expanded and introduced:

- Enhancements to our National Managed Spares Program resulted in:
 - Improved availability and spare parts level management
 - Reduced system outage times through centralization
 - Increased revenue from unnecessary parts resale by \$0.4
 million
 - Savings of \$2 million in repair costs
 - 5,300 network equipment parts not being sent for unnecessary repair
- Wireless device repair process enhancements that:
 - Reduced the need for a repair through improved quality, diagnostics and customer support, leading to an improved customer experience and reduced use of resources
 - Improved the ease and speed of repair for consumer and business customers leading to a 7 per cent year-over-year reduction in devices submitted for repair
 - Eliminated the need to ship 10,650 devices weighing approximately 1,200 Kg (approximately 50 per cent by air)
 - Saved customers at least one trip to a TELUS store and a seven-day wait time if their phone was sent in for repair
 - Reduced the frequency of product pickup/drop off between plants and service centres from twice a week to once a week, eliminating 206 Kg of CO2e emissions
 - Through our Wireless device certified pre-owned program we recovered 120,708 returned devices that otherwise would have been sent for e-waste processing.

In 2017, deliverables will include a focus on initiatives in our fleet and sustainability enhancements to our procurement processes.

Process improvement

At TELUS, our goal is to integrate environmental thinking into all facets of our supply chain. Defined as sustainable supply chain management, this includes

product design, material sourcing and selection, manufacturing processes, delivery of the final product as well as end-of-life/re-use management of the product after its useful life.

From 2013 through 2016, we re-engineered the end-to-end process for supply and asset recovery of products used by our customers to improve:

- Product traceability
- Recovery, increasing the return rate from 65 to 95 per cent
- Customer experience.

By implementing a new system that allows customers who cancel their TELUS subscription to more easily return their TV and Internet equipment, we have increased the return rate of equipment from 65 to 95 per cent, as well as increased the number of refurbished units we can re-use, diverting them from recycling and landfill.



460,000 Reduction in the number of cardboard boxes purchased

10,738 tonnes

Amount of equipment and materials diverted from landfill



In 2016, in addition to improving the volume and diversity of assets being recovered through various programs, we launched or enhanced initiatives and processes targeted at reducing packaging, transportation and materials handling:

- Wireline Device and accessories recovery: we re-used 622,882 pieces of wireline equipment and reclaimed for re-use over 250,000 parts from returns (e.g., smartcards, power adaptors, remote controls, micro filters, modem stands and cables).
- Multi-pack initiative: the introduction of Lean Principles helped us further reduce packaging materials (cardboard and polystyrene) during the refurbishment process. We also extended this initiative to our main equipment vendor for new purchases. This led to:
 - Savings of \$1 million
 - 460,000 fewer cardboard boxes purchased
 - Improved box re-design that reduced material content by 25 per cent
 - Improved productivity as a result of new anti-static packaging
 - Re-used 38,000 boxes from installers, improving the quality of returned product and reducing the amount of plastic replacement parts used in the refurbishment process.
- Double stack trailer: packaging improvements allowed us to optimize pallet orientation and stacking in trailers, saving \$225,000 in direct freight costs and reducing CO2e emissions.
- Wireline Set Top Box (STB) software load: we created a more efficient and fully automated software process that led to \$140,000 in savings, increased product quality, reduced rework, handling and transport as well as reducing lead time and inventory constraints.
- Wireline equipment kitting: we streamlined the process for kitting refurbished Satellite TV equipment (adding accessories and collateral) moving it earlier in the refurbishment process. This reduced handling and the need to reopen packaged product, which led to reduced process lead time and reduced errors as well as cost savings of \$37,000.
- Network equipment decommissioning and asset recovery: we
 decommissioned old network equipment and actively recovered

these assets through a central process. Equipment was assessed for re-use within TELUS, marketed and sold for re-use, or recycled. This led to \$965,000 in revenue and the recycling of 5,280 tonnes of network equipment.

• Diversion from landfill: we actively manage asset reclamation and recycling for products and materials that cannot be re-used or re-sold to maximize the amount of material that is diverted from landfill and recycled as raw material. As recycling technology improves, we will add to the range of materials that are recycled. In 2016, a total of 10,738 tonnes of equipment and materials were diverted from landfill.

Supplier Diversity Program

Our Supplier Diversity Program encourages economic development and provides more opportunities for ethnic minority, Aboriginal, and/or women led organizations to bid for our business in competitive processes, so that TELUS' suppliers reflect our diverse customer base and bring new ideas and creativity to our company. The scope of our program continues to include Canadian companies that are certified by:

- Canadian Aboriginal and Minority Supplier Council (CAMSC)
- Women Business Enterprises (WBE) Canada
- Canadian Gay and Lesbian Chamber of Commerce (CGLCC).

We continue to build capacity in corporate Canada by providing thought leadership in the policy development and growth of supplier diversity through board representation, partnerships and development programs. In 2016, we also received industry recognition and participated in external awareness outreach initiatives:

- Featured in a number of diversity-focused publications and industry events promoting the positive impact of diverse suppliers
- Provided a mentoring session in partnership with WBE
- Hosted one of the first Supplier Diversity workshops in Western
 Canada for WBE and CAMSC
- Became a founding corporate partner with the CGLCC.



As part of TELUS' commitment to supplier diversity and developing longstanding partnerships with suppliers that mirror our core values, we introduced our Supplier Diversity Mentorship Program in 2016. Six diverse-owned and certified companies worked with TELUS executives to develop targeted strategies to strengthen and grow their businesses. Together, personalized goals were developed for each of our protégés, harnessing TELUS' experience and expertise to help them grow and develop as individuals and companies.

The program will run every two years, and our strategy is to grow the number of participants, both protégés and mentors. Also, TELUS will expand the program beyond procurement to provide mentors from various departments such as Sales, Marketing, and People and Culture. We work in partnership with other Canadian companies to continuously support the program to help advance diverse businesses.

In 2016, we continued to work with our stakeholders to implement projects that tracked, reported and improved environmental and social impacts throughout our supply chain. By continuing to host workshops, diversity programs and by sharing best practices through industry associations and our own events, we remain committed to transforming the way we, and our partners, do business.

In 2017, we will continue to expand our commitment to supplier diversity and build new partnerships. As supplier diversity gains more visibility within Canada, TELUS continues to play a leading role.

Waste reduction at the source

In 2016, we worked with our internal and external stakeholders to identify and action new opportunities to reduce our environmental impact. We:

- Enhanced product packaging design which led to time, space, resource and financial savings
- Reduced the number of trucks required to move materials through our supply chain, saving money and reducing CO2e emissions
- Diverted 1,250 KG of wood from landfill by sending 250 wooden cable reels to a recycler
- Implemented a transportation approval process to confirm urgency of material transfers between our cable yards
- Identified that our third-party logistics provider was shipping hardware (e.g., nuts, bolts, etc.) in individually labelled bags for each piece. Changing this practice is leading to cost savings for both partners as well as less waste.
- Although we were successful in implementing new waste reduction initiatives in 2016, we also encountered challenges:
- We have not yet been able to source a reliable fibre recycling vendor
- Gaining support from our fibre drop/multiport vendor to reduce packaging is taking longer than anticipated. We are working with them to review the cost and environmental savings to reinforce the positive impact for both partners.





1,250kg

Amount of wood diverted from landfill as a result of recycling wooden reels

In 2017, we will continue to seek out opportunities to reduce waste across our supply chain. Our intent is to:

- Further reduce transportation costs and CO2e emissions related to the movement of materials
- Drive our Procurement 2020 program forward, so that we can focus on more strategic sustainability sourcing activities and further reduce our costs
- Implement our Fleet Sustainability Strategy to further reduce fleetrelated greenhouse gas emissions
- Explore further options to reduce TELUS-branded packaging for wireless accessories
- Re-evaluate the process for internal IT deliveries to TELUS personnel to determine if packaging reductions can occur
- Explore options to consolidate scheduled shipments to our field warehouse locations, reducing the number of trucks on the road
- Work with our third-party logistics vendor to improve inventory planning and explore options to consolidate shipments from our regional distribution warehouse to our field warehouses without impacting customer service levels or key performance indicators

- Work with our third-party logistics vendor, Purchasing, and Inventory Planning teams, to explore options to reduce the distance that materials travel in our internal supply chain before reaching the customer
- Take the next steps in our cross-functional initiative to improve testing of set top boxes, modems and routers, with the aim of reducing our No Fault Found on device returns (currently at 95 per cent).

Product stewardship and innovation

Innovation for a friendlier future

Research and development

Having the courage to innovate is a value embraced by TELUS. To nurture this in our employees, we commit to innovation as a company - evidenced by our financial investment in research and development (R&D) to improve the experience for our customers.

In 2016, TELUS invested \$184 million in R&D. The moderate decrease was due to heightened R&D investments in 2015 and 2014. These investments were made to manage an increased demand for data through the deployment of spectrum acquired in those years. We also invested in TELUS Garden, our new corporate home in Vancouver, B.C., which is rich with innovative features and one of the greenest buildings in North America.

Estimated investment in research and development	2016	2015	2014	
Consolidated - millions of dollars	184	206	194	

Since 2005, TELUS has invested \$2.4 billion in R&D.

In 2016, R&D spending demonstrates our continued strategic investment in our network evolution and service offerings through:

- Ongoing extension of TELUS Fibre to thousands of homes and businesses in rural and gigabit-enabled urban centres, further strengthening wireless to support new services and technologies.
- Feeding the growing demand for smart home devices and other next generation technologies, by launching Digital Life and <u>Connected</u> <u>Experience concept stores</u> across the country, where customers can touch, test and play with more than 1,000 specially curated products and new technologies that help enhance their digitally connected life.
- Investing in Internet-connected devices to promote the growth of the Internet of Things (IoT), driving solutions that will enable all sectors to further their global competitive advantage, reduce their environmental impact and increase worker safety.
- Continuing to expand our Optik TV technology platform, while investing in new next generation set-top boxes and personnel video recorders.
- Leveraging technology innovation to deliver better health outcomes for Canadians to support TELUS Health in being a leading provider of electronic medical records for physicians, and partnering with government in introducing home health monitoring.

TELUS sponsors academic research institutions, helping them to overcome practical challenges specific to our industry. We collaborate with professors, students and post-doctoral fellows to discover the most advanced technology innovations that will provide the highest possible quality of communications services to Canadians. In doing so, we are helping train the next generation of engineers and technicians.

Our participation in nationwide research networks involves a large number of industry sponsors, academia and government participants. This includes, but is not limited to:

- University of British Columbia
- University of Victoria

- University of Alberta
- University of Calgary
- University of Manitoba
- Carleton University
- University of Toronto
- York University
- École Polytechnique de Montréal
- Université Laval
- McGill University
- McMaster University
- Algonquin College
- Sheridan College Institute of Technology and Advanced Learning
- Emily Carr University
- Mitacs
- American University of Beirut
- University of Southern California Communication Technology Management (CTM)
- Networks of Centres of Excellence of Canada National Sciences
- Ontario Centers of Excellence (OCE)
- Natural Sciences and Engineering Research Council (Canada)
- Engineering Research Council of Canada.

TELUS sponsors and participates in a number of entrepreneurial, start-up accelerators and business incubator partnerships through forums such as:

- CENGN Centre of Excellence in Next Generation Networks
- TEC Edmonton
- Smart City Montreal Innocité Montréal
- Innovate Calgary
- ASTech Foundation
- Startup Edmonton
- VENUS Cybersecurity Corporation
- TELUS Innovation Lab program
- StartUp Here Toronto.



TELUS is an active and influential member in several of the world's largest global professional associations dedicated to advancing research and technology innovation. Our commitment to the membership of these consortiums contributes to developing the standards and solutions that are creating the future of information and communications technologies. Examples of associations we partner with are:

- Alliance for Telecommunications Industry Solutions (ATIS)
- Third Generation Partnership Project (3GPP)
- ITU (International Telecommunication Union)
- Metro Ethernet Forum
- Telemanagement Forum (TMF)
- Continental Automated Buildings Association (CABA)
- Broadband Forum
- Digital ID and Authentication Council of Canada (DIACC)
- Global Platform
- Next Generation Mobile Networks (NGMN)
- Small Cell Forum
- Groupe Speciale Mobile Association (GSMA)
- Organization for the Advancement of Structured Information
 Standards (OASIS)
- Optical Internetworking Forum (OIF)
- Society of Cable Telecommunications Engineers
- Society of Motion Picture and Television Engineers
- UHD (Ultra High Definition) Alliance
- Fibre to the Home Council
- Open Networking Foundation (ONF).

These alliances provide a global source of information, knowledge and networking for industry leaders, like TELUS, who advance the use of technology and integrated systems.

Moving bold ideas forward

Launched in 2001, <u>TELUS Ventures</u>, the strategic investment arm of TELUS, has been moving bold ideas forward to seamlessly connect people, companies and communities by driving innovation. We are using and investing in the most advanced and innovative technologies to tackle some of today's biggest challenges.

We have partnered with over 50 market-transforming North-American-based companies in the fields of health IT, Internet of Things, big data, financial tech, and data security and identity. We are investing in Canadian startups and scaling innovation in the ecosystem, so we can improve the lives of those in the communities we serve and, deliver greater value to our customers. Specifically, we aim to invest in companies that:

- Offer solutions that accelerate the delivery and effectiveness of healthcare at all levels of the care continuum
- Leverage our wireless network to enable deployment of next generation devices and applications
- Advance solutions that leverage data analytics to better manage and create actionable insights
- Help financial institutions excel in the face of disruptive technological changes
- Protect users' digital identity, while enabling mobile and online financial transactions.

Internet of Things

High-speed of connectivity is helping the Internet of Things (IoT) transform every industry sector by connecting devices to one another and streamlining business operations. IoT increases productivity, drives insights from data that cannot be captured by humans, decreases operational costs and drives better customer experiences.



TELUS offers a dedicated network layer for enterprise IoT traffic. Every solution is built on a network infrastructure specifically designed to support IoT applications, allowing for:

- Faster deployment and changes
- Significant savings on implementation and operating costs
- Unlimited customization
- A highly available network design for assured business continuity.

TELUS collaborates with 55 partners that deliver over 100 solutions that specifically solve business problems for customers in verticals such as smart cities, construction, hospitals and fleet management. To this end, we launched our <u>IoT Marketplace</u> in 2014, and were the first to market in Canada, providing insight and clarity in this emerging technology space. To learn more, please watch our <u>video</u>.

TELUS Fund

We believe it is important to tell stories that appeal to our emotions, change perceptions, stimulate empathy and share knowledge in an entertaining way. The mandate of the TELUS Fund is support the development of exceptional digital content that promotes the health and well-being of Canadians.

Please see our <u>website</u> for more details and to see examples of funded projects.

Product stewardship

2016 marked a major milestone for our TELUS trade-in program. We have recovered 1,009,155 devices from our customers through this program since inception.

This program provides an easy way for our customers to save money and experience the most innovative products and solutions. TELUS offers an online tool where customers can look up the value of their old device and put any applicable savings or credit towards a new smartphone, tablet, or accessories when combined with a new postpaid activation or renewal.

If the old device has no trade-in value, our mobility team members will still happily take any old devices and send them for recycling through our device recycling partner, Global Electric Electronic Processing (GEEP). Those with trade-in value are refurbished and sold through various retail channels.

In 2017, we aim to continue the evolution of this program to encourage the recovery of more mobile devices.

Packaging reductions

Our wireline team has been busy working with suppliers to redesign packaging for innovative wireline products to reduce packaging waste overall. They have also redesigned the equipment recovery process. In the past, any time a customer needed to send a wireline product back to TELUS, a return-paid cardboard box was shipped to the customer. However, these boxes were seldom used and generated needless waste. The wireline team now asks the customer what sort of return packaging is required for the equipment, lowering the amount of excess packaging generated.

TELUS and Koodo have saved 30,000 to 50,000 customized boxes per year from the recycling and waste stream by altering the packaging of prepaid devices. Initially, prepaid devices were packaged in a customized box depending on the type of device being provided. The team now uses a generic box with a customized sticker containing the device information to avoid wasting out-of-date customized printed boxes.

Governance

Full and friendly disclosure

At TELUS, we are firmly committed to sound and effective practices in corporate governance and full and fair disclosure. Our pursuit of new approaches to achieve higher standards sets us apart and leads to greater transparency and integrity in our actions.

Enhancing good governance

TELUS' strategic intent is the foundation of our governance program and is supported by <u>six strategic imperatives</u>. These imperatives guide our efforts and serve as a framework for our actions. Our values elevate our brand promise. A friendly future is created by:

- Having the courage to innovate
- Inspiring a passion for growth
- Embracing change and seizing opportunity
- Demonstrating spirited collaboration across a diverse and inclusive team.

Each year, we set corporate priorities to advance our growth strategy and put our customers first. We also implement initiatives that help us achieve good governance. Our 2016 highlights include:

Board diversity

Encouraging diversity on our Board and its committees is essential to our success, as it provides a broader range of perspectives and experience and better reflects the communities and customers we serve. TELUS' diversity objective now states that diverse members will represent not less than 30 per cent of the Board's independent members by May 2017, with a minimum of each gender representing 25 per cent of such members by May 2017,

increasing to not less than 30 per cent of such members by 2018. Currently, diverse nominees (five nominees) represent 42 per cent and female nominees (three nominees) represent 25 per cent of the independent directors proposed for election at our next annual meeting.

Transparency disclosure

Our annual transparency disclosure provided insight into our approach responding to requests for information about our customers from law enforcement agencies and other government organizations. This disclosure demonstrates our ongoing commitment to protect our customers' privacy while also supporting the efforts of law enforcement and emergency service providers. Our transparency reporting is integrated into this Sustainability Report.

Executive pay

The Human Resources and Compensation Committee (the Compensation Committee) is responsible for reviewing and approving the compensation arrangements of EVPs and for reviewing and recommending to the Board for approval the compensation arrangements of the CEO.

TELUS pays for performance. We establish a clear and direct linkage between compensation and the achievement of business objectives – in the short, medium and long-term – by providing an appropriate mix of fixed versus atrisk compensation, and immediate versus future income linked to our Share price performance.

The Compensation Committee's primary focus is to maintain an executive compensation program that supports the achievement of three objectives:

- To advance our business strategy
- To enhance our growth and profitability
- To attract and retain the key talent necessary to achieve our business objectives.

The Compensation Committee utilizes both a market-based and performancebased approach to compensation. An executive's compensation is based on his or her personal performance, together with corporate performance and position relative to competitive market compensation data.

For more information regarding our compensation philosophy, please refer to our 2017 Information Circular.

Risk Management

Effective risk management supports our foundation for sustainability leadership. TELUS defines business risk as the degree of exposure associated with the achievement of key strategic objectives in relation to the effectiveness and efficiency of:

- Operations
- Reliability of financial reporting
- Compliance with laws and regulations
- Safeguarding of assets within an ethical organizational culture.

Consistent with our balanced approach to business, we use an enterprisewide risk and control assessment process that solicits and incorporates the expertise and insight of employees from all areas and levels of the organization, including our Board of Directors. We seek to continuously improve enterprise risk governance by voluntarily:

- Assessing perceptions of risk resiliency, risk appetite and risk management integration in key decision processes
- Assigning executive-level owners for mitigating key risks
- Integrating information across our strategic planning process and enterprise risk assessment activities.

More information on our risk assessment and mitigation process is available in section 10 (Risks and risk management) of the MD&A within our 2016 Annual Report.

Information on financial liabilities is listed in the consolidated financial statements section of our Annual Report.

Sustainability Governance

Overall responsibility for our sustainability performance resides with TELUS' Board of Directors. TELUS' chief sustainability officer is the executive who reports directly to the Corporate Governance Committee of our Board of Directors and is responsible for the approval of the overall strategic direction of our sustainability programs. Our annual Sustainability Report is just one way we communicate our progress toward reaching our sustainability goals. The report serves as a catalyst for gathering stakeholder feedback on our programs and performance, so we can maintain our commitment to our future-friendly story.

Sustainability Steering Committee

Our Sustainability Steering Committee is made up of senior leaders from all TELUS business units who are accountable for integrating sustainability considerations throughout our company in collaboration with our sustainability team. Additionally, this committee continues to nurture a culture of sustainability, meets regularly to review progress against our objectives and assesses new or ongoing initiatives.

The committee provides progress reviews each quarter to the Corporate Governance Committee of TELUS' Board of Directors as well as updates to the Board on other sustainability matters, typically in the first quarter of each year.





Our National Sustainability Council and Green Teams

TELUS has long valued the passion and engagement from our local employees who have formed volunteer Green Teams across the country. To better support our Green Team members and advance our sustainability culture internally, TELUS formed a National Sustainability Council (NSC) in 2015.

Our NSC is made up of a diverse group of 22 employees who dedicate five to 10 per cent of paid working time to help integrate sustainability considerations across TELUS with personal objectives tied to performance. Each council member is dedicating their time toward specific material issues by focusing on the following categories in specific resource groups:

- Education and awareness
- Resource stewardship
- Communications
- Energy and utilities
- Green Team growth and support.

The NSC has developed a mission statement and are committed to:

- Cultivating a culture of sustainability by being leaders and innovators
- Connecting and empowering team members, customers and partners
- Collaborating to align business objectives with sustainability goals
- Celebrating and recognizing successes while continuously learning and improving.

In 2016, our NSC and Green Teams:

- Led 10 <u>Great Canadian Shoreline Cleanup</u> events collecting more than 200 kg of waste
- Assisted in 16 waste audits at TELUS network and administrative facilities
- Participated in a National Commuter Challenge that saved 3,000 litres of fuel but most importantly diverted 5,891 kg of CO2e

- Launched an internal real-time sustainability engagement app with over 1,000 users who engage in multiple sustainability Nudges every week
- Expanded our local Green Teams to more than 120 members in over 21 sites who are focused on local building-related or behavioural sustainability opportunities.

For a full statement of our corporate governance practices, including our Board policy manual and disclosure regarding our governance practices compared to those required by the New York Stock Exchange (NYSE), refer to our TELUS 2017 Information Circular or visit the governance section on our website.

Ethics

Committed to integrity

At TELUS, delivering on our future-friendly brand promise and our Customers First priority means we must behave in a manner consistent with the tenets of our <u>Code of Ethics and Conduct</u>.

The Code covers, amongst others, the following areas:

- Our commitment to our customers, shareholders, team members and communities
- Privacy of Communications
- Confidentiality of Information
- Fraud
- Competing ethically/lawfully/fairly
- Conflict of Interest
- Respectful Workplace/Human Rights
- Company Assets and information
- Dealing with Suppliers
- Bribes and facilitation payments

Our commitment to ethical behaviour reflects our collective belief in inclusion, transparency and a shared responsibility to hold ourselves and each other to an ethical standard that is above reproach. As a team, we have agreed that how we work is just as important as what we do, and we expect our extended TELUS family, including contractors, suppliers, vendors, community partners and members of our <u>Board of Directors</u>, to share our commitment to personal and professional integrity.

TELUS EthicsLine

Through the TELUS EthicsLine (1-888-265-4112 or <u>telus.ethicspoint.com</u>), employees and external stakeholders can raise anonymous and confidential questions or file complaints related to accounting, internal controls or ethical issues.

In 2016, 492 Contacts were made to the Ethics Office, with callers seeking advice on ethical situations or making complaints. This represents a 20 per cent increase over the 410 similar contacts made in 2015, which can primarily be attributed to an increase in personnel as well as increased training and awareness initiatives. Each complaint was investigated, resolved and reported to the Human Resources and Compensation Committee, as well as the Audit Committee of <u>TELUS' Board of Directors</u>. TELUS' Code of Ethics & Conduct outlines the process for handling complaints which includes assessment, investigation, protection for reporting, opportunity to respond, documentation, and reporting of breaches.

As in previous years, there have been no instances involving fraud by employees with a significant role in internal controls over financial reporting.

Any violation of the Code is subject to a range of disciplinary and / or corrective actions up to and including termination. The most frequent violations were related to breaches of company policies. Corrective action was taken in each case of a breach, with some of the breaches resulting in discipline or the dismissal of more than one employee.

Discipline for breaches of ethics

Corrective action	2016	2015	2014
Employment terminated	116	71	97
Employment suspended	25	21	33
Letter in employment file	24	11	36
Team member resigned	13	11	1
Total employees disciplined	178	114	167

Detailed reporting on all EthicsLine activity, including nature of complaints or inquiries received, as well as breaches determined including type, location, business area and tenure of employee, is shared with the Audit Committee and Human Resources and Compensation Committee of our Board of Directors on a quarterly basis.

Integrity Index

In 2012, we developed our Integrity Index, which helps gauge:

- employee awareness and understanding of this subject area
- the integrity of our senior managers
- the effectiveness of our Integrity training.

The index uses results from our Integrity training course, internal employee surveys, external surveys of our customers and reported breaches of our policies to create an index with a percentage score. For the past five years, our results have been in the 93-94 per cent range which demonstrates consistent understanding, behaviour and training effectiveness over this time.

Regulatory compliance

Adapting our business practices

Overview

An ever-evolving regulatory environment and fast-paced technology advancement means we are continuously adapting our business practices and service offerings to meet the needs of the market. Advocating for regulatory changes, demonstrating our compliance with legislation, regulatory rules and requirements, while delivering vital and reliable products and services, has helped differentiate TELUS from our competitors.

The <u>Canadian Radio-television and Telecommunications Commission</u> (CRTC) oversees the provision of telecommunications and broadcasting services in Canada. Although the majority of TELUS services are no longer subject to rate regulation, we maintain tariffs for certain telecommunications services. In 2016, the CRTC and courts released key decisions that impact the ways we deliver services to Canadians and contribute to the digital economy.

Highlights include:

- The revised regulatory framework for local and community television creates new flexibility for TELUS' Optik Local programming and our ability to support projects that are not tied to the traditional broadcasting system.
- The Supreme Court of Canada's ruling in *Rogers Communications Inc. v Chateauguay* reaffirmed the federal government's exclusive jurisdiction over the deployment and siting of wireless network infrastructure, providing clarity that carriers may build and expand networks on the basis of a single, federal framework designed to take into account local concerns.
- High-speed Internet access is now considered a basic telecommunications service. TELUS will now be able to access a fund to support projects in areas within our operating territory that do not meet the speed targets established in the <u>decision</u>.

It is noteworthy that TELUS has already completed many of the accessibility initiatives mandated in this decision.

Advocating to build our networks under a single federal framework, collaborating with Aboriginal governments and communities, meeting safe levels of radio frequency emissions and making other required disclosures, matters to us. Our commitment to regulatory compliance and engagement underpins our commitment to social, economic and environmental sustainability. For further details on regulatory impacts to our business, please see sections 9 & 10 of our MD&A in our <u>2016 Annual Report</u>.

Compliance with legislation and industry codes

Anti-spam legislation

In effect since 2014, <u>Canada's anti-spam legislation</u> (CASL) is intended to protect Canadians from spam (e.g., marketing e-mails and text messages) while allowing companies to compete. TELUS has a CASL compliance program which includes consent and form requirements that apply to commercial electronic messages sent to customers by or on behalf of TELUS. A comprehensive CASL compliance manual is available to all team members, in addition to online training programs for key business and operational units. In this way, TELUS demonstrates its commitment to full compliance with CASL while enabling customers to receive information about TELUS' products and services through electronic means in accordance with their preferences.

Wireless Code

The CRTC's <u>Wireless Code</u> is a mandatory code of conduct for all retail mobile wireless voice and data services providers offering services to consumer and small business customers. The Code sets baseline requirements for customer rights and service provider responsibilities.



It deals with issues such as:

- Clarity and content of mobile wireless service contracts
- Application of early cancellation fees
- Mandatory caps on data and roaming charges
- Removal of cancellation fees after two years.

The CRTC has verified, through its <u>Wireless Code Implementation Report</u> <u>Card</u>, that TELUS is in compliance with the Wireless Code.

Leadership in customer satisfaction

In 2016, TELUS continued to lead its peer group in customer satisfaction. The Commissioner for Complaints for Telecommunications Services (CCTS), which administers both the <u>Wireless Code</u> and the <u>Deposit and Disconnection Code</u>, released its annual report in November 2016. The <u>report</u> showed that TELUS received the fewest complaints accepted by the CCTS among the national telecommunications service providers. TELUS companies, Koodo Mobile and Public Mobile, also continued to lead their peer group of national carrier-owned brands with the fewest complaints accepted by the CCTS.

	Number of CCTS Complaints Received	Percentage of Total Industry Complaints (%	
TELUS	570 🗚	7	
Koodo Mobile	207 A	2.5	
Public Mobile	46 A	0.6	

As a licensee of wireless spectrum, TELUS must adhere to Safety Code 6, a set of requirements that limit the amount of radio frequency emissions from wireless infrastructure, including antennas. TELUS has assessed recent revisions to <u>Safety Code 6</u> and is in compliance with the prescribed limits.

Internet Traffic Management Practices

TELUS manages Internet traffic on small portions of our wireline network in accordance with CRTC policy. Managing traffic is most important in communities where network demand is greater than the available capacity to provide the majority of our customers with the best possible online experience. When we need to manage this traffic, we only do so after providing notice to customers. This allows us to adhere to the policy and provide the majority (i.e. upwards of 80 per cent) of customers using less bandwidth with a better experience and more consistent Internet speeds.

TELUS also employs a technical Internet Traffic Management Practices (ITMP) called Wireless Video Experience Optimization on our nationwide 4G wireless network. This:

- Optimizes streaming video files for delivery over wireless networks
- Reduces network congestion
- Helps customers reduce their data usage
- Allows videos to load faster, reducing the chance of stalls.

The technology does not look at what videos our customers are streaming; rather, it focuses only on certain technical characteristics of the files that carry them.

Disclosures about TELUS' ITMPs, as well as the communities in which these are applied, are made online and can be found at these links: <u>here</u> and <u>here</u>.

Copyright: Notice & Notice Compliance

"Notice and Notice" provisions in the Copyright Act require Internet Service Providers (ISPs) to forward notices received from copyright-holders about alleged acts of copyright infringement to relevant customers.

TELUS voluntarily forwarded notices of alleged infringement beginning in 2005, and has complied with Notice & Notice requirements since they came into force.



Broadcasting

TELUS Successfully Advocating in favour of Community Voices

In 2016, during the CRTC's review of the regulatory frameworks for local and community television, TELUS successfully argued for a community television regime that would enable it to grow opportunities for its Optik Local community programming service. In this review, TELUS defended against calls for community funding to be diverted to over-the-air television networks such as CTV, Global and CityTV, which are all owned by large vertically integrated communications companies and provide very little local programming in comparison to community programming services. Optik Local provides an important voice for independent local producers and has delivered awardwinning programming. The regulatory framework that resulted from this review helps TELUS direct more of its contribution requirement (money which all licensed TV providers are required to dedicate to the creation of Canadian programming) to Optik Local programming.

Political Contributions

As a means of supporting the democratic process, TELUS occasionally provides contributions to a regional political party, campaign or candidate in Canada. These contributions are made in accordance with Canadian laws and applicable contribution limits, as well as our <u>TELUS Code of Ethics and</u> <u>Conduct</u>. In accordance with federal law, TELUS:

- Does not make contributions to federal political parties, constituency associations or candidates
- Does not make political contributions in countries other than Canada

\$52.275

 Discloses our total political contributions each year in our Sustainability Report.

Amount of contributions to provincial political parties, campaigns and candidates in 2016*

*Details regarding these contributions are available on each province's elections agency website.

Business continuity

Putting customers and communities first

At TELUS, we believe our robust business continuity program is a cornerstone for supporting our customer first culture, delivering reliable products and services, and supporting our communities.

Planning, readiness and testing

TELUS recognizes the potential of threats that could disrupt our ability to meet our obligations to customers, employees, the community, and shareholders. We demonstrate our commitment to these stakeholders through a sustainable and continuously evolving business continuity management program focused on managing the risks and related business impacts that could result from disruptions to our telecommunications and IT networks and services, workplaces, workforce and supply chain.

The effectiveness of our business continuity capability is supported by the following key program elements:

- A governance structure with executive sponsorship, oversight at the board level, and engagement at all levels of the organization to build business continuity capability
- A risk-based program of prevention and mitigation, preparedness, response, and recovery, as well as focus on organizational resilience
- A planning framework founded on industry-leading practice and aligned to organizational objectives
- A comprehensive emergency management framework with a consistent approach for all levels of threat, clear roles and responsibilities, a crisis management team comprising senior leaders, and linkages with key internal and external stakeholders
- Monitoring and management of all risks and projected impacts on an ongoing basis, and the application of mitigation and preparedness measures where projected impacts exceed TELUS' tolerance thresholds



 A culture that drives business continuity leadership, ownership, and continuous improvement, including training and awareness, exercises and testing, and embedding resilience into organizational processes.

Collaborating with communities and industry

TELUS collaborates with all levels of government in preparing for emergencies and disasters, participating in risk assessments, exercises, and other planning initiatives. Our telecommunications recovery plans are always aligned with community and government priorities. We provide services and equipment to community emergency operations, and TELUS team members participate in these community and government operations centres during emergencies and disasters.

We have a long history of contributing to the development of business continuity organizations, standards, and practices, playing key roles in <u>Disaster</u> <u>Recovery Institute (DRI) Canada</u> and the <u>Canadian Standards Association</u> (<u>CSA</u>) z1600 Emergency and Continuity Management standard. TELUS is also a founding member of a national group of telecommunications carriers to build resilience within Canadian telecommunications networks.

Responding to events

TELUS has a solid track record of effectively managing the impacts of disruptive events. Extreme weather events have been prominent in the last decade, and we have responded to wildfires, floods, and severe weather that impacted our operations. The <u>2013 flooding in southern Alberta</u> and the <u>2016</u> wildfires in Fort McMurray, Alberta devastated communities and challenged emergency response capabilities of all organizations. We consistently demonstrate our ability to maintain telecommunications services and support communities through these challenges.

Recognition

The TELUS commitment to robust business continuity planning has been recognized by national and international business continuity organizations:

- 2017 Disaster Recovery Institute International Award of Excellence for Response and Recovery of the Year for our response to the 2016 Fort McMurray wildfires
- 2014 Business Continuity Institute North American Award for the Most Effective Recovery of the Year for our response to the 2013 southern Alberta flooding.

Current and future focus

The effects of climate change and the resulting frequency of extreme weather events continue to be an increasing concern to TELUS. We leverage lessons learned and industry-leading practices to mitigate these threats and to improve our capabilities to respond to them, including:

- Enhanced weather monitoring
- Severe weather response plans
- Improved incident management responses
- A focus on organizational resilience.

As incidents of cyber-security threats have increased, TELUS has taken steps to build our capabilities to respond to these threats, including monitoring teams and cyber-security incident plans.

TELUS is committed to continuous improvement. In 2017, we are undertaking a comprehensive review of our business continuity program with the objectives to:

- Improve our ability to identify threats to the organization
- Educate the organization on risk
- Improve our ability to manage and recover from disruptive events.

Reporting

Over time, our Sustainability Report has become a powerful way to engage with our stakeholders and communicate, manage and measure our sustainability performance and impacts. Developing and executing our process for gathering information for sustainability reporting helps us in the early identification of environmental, social, and other current and emerging risks

CEO letter

Creating remarkable outcomes for Canadians



At TELUS, our success is built on listening, learning and embracing new ideas for putting our customers first, every day. We are passionate about improving the lives of our fellow citizens as well as the world in which we live. Our goal to be a global leader in sustainability is deeply embedded within our organisation's culture, guiding every decision we make. We take a balanced approach, focusing our passion and our resources on

leveraging our technology to create remarkable outcomes in respect of the digital economy, health, the environment, education, privacy and trust and community – for the benefit of our customers and our communities.

Caring for the environment our children will inherit

Our sustainability efforts are led by the TELUS team who share a passion for making a positive difference, whether it be finding new and innovative ways to reduce our greenhouse gas emissions and energy and water use, or striving to set a leadership example with respect to recycling, waste reduction, renewable energy and sustainable supply chain management. Our Green Teams complement these efforts by hosting a variety of fun and engaging activities throughout the year to further educate and inspire others to help reduce our overall ecological impact. Additionally, to ensure every team member has an opportunity to contribute to our sustainability targets, we include a sustainability index in our corporate scorecard.

Integrating sustainability throughout our national real estate strategy remains a key focus for TELUS. Specifically, we are consolidating office space and building new technologically advanced, energy-efficient buildings across Canada. Since opening in 2015, TELUS Garden, our LEED (Leadership in Energy and Environmental Design) Platinum tower in Vancouver, has not only provided tremendous value in terms of offering a healthy, inspiring work environment for our team members, but our top-floor hosting space has also become a favourite venue for local community events. An icon of innovation and sustainability, TELUS Garden was named the best high-rise in the world in the 2016 Architizer A+ Awards, the first Canadian building to receive this prestigious award.

We continue to expand our portfolio of technologically and environmentally advanced work places to Calgary where TELUS Sky began to rise above the horizon in 2016, offering team members a glimpse of their future home. TELUS Sky represents one of the most technologically innovative and environmentally advanced buildings in North America. Reflecting our commitment to the community, our signature development in the heart of downtown Calgary will bolster the province's economic strength and vitality.

The dedication of our team members to preserving and protecting our environment has contributed to TELUS being consistently recognized for our sustainability practices. Indeed, TELUS has been listed on the Dow Jones Sustainability North America Index for 16 consecutive years and was added to its World Index in 2016, one of only nine Canadian companies across 24 industry groups to share this distinction.

Investing for a friendlier future

The TELUS team is dedicated to delivering on our long-term strategy of unleashing the power of the Internet to deliver the best solutions to Canadians at home, in the workplace and on the move. This is underpinned by disciplined capital investments in our core business. Investing in broadband technology expansion, including TELUS PureFibre and 4G LTE advanced and 5G networks, remains a key component of this strategy. Our leadership in innovation and the evolution of wireless and wireline technology is bridging the digital divide by offering Canadians access to secure, fast and reliable voice, Internet and TV connections, future-proofing Canadian communities for decades to come.

Through our leading-edge TELUS PureFibre network we are helping our customers to work smarter, live better and spend more time on the things that are most important to them. In 2016, our TELUS PureFibre footprint was extended to more than one million premises in British Columbia, Alberta and Quebec. We are providing consumer and business customers with the tools and speeds to participate fully in our digital economy and society. At the same time, we are enabling the scalable, reliable infrastructure foundation for the smart homes, businesses, health centres, schools and cities of the not-too-distant future.

In 2016, we extended the reach of our 4G LTE network to 97 per cent of the Canadian population and growing. Consistent with our commitment to continuous improvement and innovation, at our 5G Living Lab in Vancouver, we achieved wireless speeds up to 200 times faster than today's LTE standard. TELUS will continue to lead the world in respect of wireless technology with our evolution to an integrated 5G network. This technology will enable driverless cars and smart homes, businesses and cities, as well as applications, devices and services that promote wellness, improve educational outcomes and support environmental sustainability.

Innovating to achieve positive social outcomes

The benefits of our converging technologies extend to healthcare, where our innovative technologies are advancing our health transformation agenda. Access to efficient and effective healthcare in Canada is becoming increasingly challenging, particularly with an aging population and the inability to increase publicly funded healthcare. Through the networking of personal health records for consumers, electronic medical records for doctors and pharmacy management systems for pharmacists, we are helping to reduce the cost of delivering healthcare while improving ease of access for all Canadians.

A fundamental component of our customers first promise is our team's dedication to helping Canadians remain safe and confident when online or using their mobile devices. Through our TELUS WISE (wise Internet and smartphone education) program, we have reached more than 1.7 million Canadians over the past three years. TELUS WISE is also an essential component of our Internet for Good program, which we introduced in the fall of 2016 to help remove barriers to Internet connectivity for low-income, single-parent families in Alberta and British Columbia. Similarly, TELUS WISE will be offered through our Mobility for Good program, which provides teenagers transitioning out of foster care with access to a TELUS smartphone and a wireless rate plan at no charge.

Building stronger, more compassionate and more diverse communities

I have long believed that TELUS has the most talented team in the global telecommunications industry. Our winning culture in action has not only led to best-in-class business outcomes, but it is supporting deeply meaningful community outcomes. The TELUS team's culture of caring is at the heart of our TELUS future friendly story. We are using personal narratives to share the many ways our team members are creating remarkable outcomes for fellow team members, our customers, communities and shareholders. We are on a journey to redefine what it means to be a technology company in our everchanging digital society. Through our future friendly story, we are showcasing our commitment to bridging the digital divide; enabling improved health outcomes; caring for the planet our children will inherit; advancing educational opportunities for our future leaders; keeping citizens safe in our digital world; and building stronger, more caring communities by giving where we live.

Our team is aware of the powerful and profound connection between the well-being of our Company and that of the communities where we live, work and serve. In this regard, when forest fires devastated the northern Alberta community of Fort McMurray in early 2016, team members opened their hearts and rolled up their sleeves to help our fellow citizens in need. Our TELUS family, along with our customers, contributed an extraordinary \$1.2 million and more than 100,000 days' worth of volunteering and work effort in support of local families.

Through our annual TELUS Days of Giving, we provide citizens with an opportunity to make a difference in their local communities. In 2016, a record 28,000 team members, retirees, friends and families contributed 60,000 hours of service at 1,500 events in communities around the world.

Our support for our communities is anchored by our TELUS Community Boards. Since their inception in 2005, TELUS' 15 Community Boards have distributed \$60.7 million to 5,600 projects in our communities worldwide, positively impacting the lives of more than two million youth and their families. We continued to expand our reach with the launch of two new boards – one in Manitoba and one internationally in Romania – bringing the total to 17 boards around the world.

The TELUS team's dedication to building stronger, safer and healthier communities brings our total giving since 2000 to an unparalleled \$482 million and more than one million days of work and caring. Together, we are creating extraordinary outcomes thanks to the passion of our team and the trust of our customers.

Leveraging the strength of our team and culture to achieve our goals

Putting customers first will always be our top priority. We will continue to conduct our business activities with openness, transparency and integrity, publicly sharing our targets and our performance against them. Consistent with our commitment to continuous improvement in all that we do, we will continue to work with our diverse customers and our many partners in the community to further strengthen our performance as a socially responsible organisation and leading corporate citizen.

I hope that by reading our 2016 Sustainability Report, you will be inspired by how the TELUS team is enabling remarkable human, social and environmental outcomes in the communities where we live, work and serve. Guided by our enduring strategy, we will continue to make the future friendly thanks to the passion of our team and the loyalty of our customers.

Thank you for your support and we welcome your ideas and feedback regarding how we can be an even better sustainability leader. We are always listening.

Darren Entwistle Member of the TELUS team since 2000 May 1, 2017



Chief Sustainability Officer letter

Creating social good



In 2016, our organization made great strides toward our goal to help create a healthier, more sustainable future. Together, our team members worked diligently to further embed sustainable practices across our entire business. Concretely, that means finding ways to tackle important challenges such as climate change, regulatory uncertainty, cybersecurity and the rising cost of healthcare delivery. We are rising above these challenges by leveraging the power of our technology to drive continuous improvement thanks to the dedication and passion of the TELUS team – the most talented team on the planet.

We have made meaningful progress in bridging the digital divide. Although Canada is a world leader in technology development, more than half of all Canadian families with incomes below \$30,000 live without Internet connectivity – impeding their access to jobs and education. The expansion of our TELUS PureFibre footprint, and programs such as Internet for Good, which offer low-cost, high-speed Internet to over 33,000 families in need across B.C. and Alberta, are examples of how we are investing in our communities to fuel economic growth and prosperity across our country. We are helping keep families safe online with <u>TELUS WISE</u> (Wise Internet and Smartphone Education), which has now reached more than 1.7 million Canadians, and, in partnership with <u>WE Charity</u>, we are providing tools parents and kids need to help combat cyberbullying.

Our customers trust us with their personal information and we continue to be a thought leader in privacy, data and trust. Our longstanding commitment of protecting privacy in all of our business operations is coming to the forefront with a renewed emphasis on clear and transparent resources to help our customers understand how we collect and safeguard personal information.

We are continuing to deliver on our vision to build the most technologically and environmentally advanced workplaces for our team across the country. Our portfolio of green buildings are not only changing the way our team members work and collaborate, but they are also transforming neighbourhoods for generations to come.We are proud to be recognized as one of the most sustainable companies in the world. It remains a personal conviction that it is our responsibility to forge a path that allow Canadians to work smarter and live better – spending more time doing what is most important to them.

With gratitude,

Andrea

Andrea Goertz Chief Communications and Sustainability Officer Member of the TELUS team May 1, 2017

Forward-Looking Statements

This Sustainability Report contains forward-looking statements and forward-looking information within the meaning of applicable securities laws (collectively, forwardlooking statements). Forward-looking statements include any statements that do not refer to historical facts and are typically identified by the words assumption, goal, guidance, objective, outlook, strategy, target and other similar expressions, or future or conditional verbs such as aim, anticipate, believe, could, estimate, expect, intend, may, plan, predict, seek, should, strive and will. They include statements about our targets including longer-term sustainability targets, key performance indicators and sustainability goals, plans for new or extended community programs, as well as our capital investment plans, multi-year dividend growth and share purchase programs, and the performance of TELUS. By their nature, forward-looking statements are subject to inherent risks and uncertainties and are based on assumptions, including assumptions about future economic conditions and courses of action as are discussed in the Management's discussion and analysis in our 2016 Annual Report. These assumptions may ultimately prove to have been inaccurate and actual results or events may therefore differ materially from TELUS' expectations expressed in or implied by the forward-looking statements.

Risks and uncertainties that could cause actual performance or events to differ materially from the forward-looking statements made herein and in other TELUS filings include, but are not limited to, the following:

 Competition including: our ability to continue to retain customers through an enhanced customer service experience, including through the deployment and operation of new wireless networks; the ability of industry competitors to successfully launch their respective platforms and to combine a mix of residential local VoIP, long distance, HSIA and, in some cases, wireless services under one bundled and/or discounted monthly rate, along with their existing broadcast or satellite-based TV services, the success of new products, new services and supporting systems, such as Internet of Things (IoT) services for Internet-connected devices; continued intense rivalry across all services among wireless and wireline telecommunications companies including new or rebranded entrants, cable-TV providers, other communications companies and over-the-top (OTT) services, which, among other things, places pressures on average revenue per subscriber unit per month (ARPU) and churn for all services (wireless and wireline), as do customer usage patterns, flat-rate pricing trends for voice and data, inclusive rate plans for voice and data and increasing availability of Wi-Fi networks for data; mergers and acquisitions of industry competitors; pressures on high-speed Internet and TV ARPU and churn resulting from market conditions, government actions and customer usage patterns; residential and business network access line (NAL) losses; subscriber additions and retention volumes, and associated costs for wireless, TV and high-speed Internet services; and our ability to obtain and offer content on a timely basis across multiple devices on wireless and TV platforms at a reasonable cost.

- Technological substitution including: reduced utilization and increased commoditization
 of traditional wireline voice local and long distance services from impacts of OTT
 applications and wireless substitution, a declining overall market for paid TV services;
 the increasing number of households that have only wireless and/or Internet-based
 telephone services; continuation of wireless voice ARPU declines as a result of, among
 other factors, substitution to messaging and OTT applications; substitution to increasingly
 available Wi-Fi services from wireless services; and disruptive technologies such as
 OTT Internet protocol (IP) services that may displace our services including TV and
 entertainment services, and impact revenue.
- Technology including: subscriber demand for data that may challenge wireless networks and spectrum capacity levels in the future; our reliance on information technology and our need to understand and streamline our legacy systems; technology options, evolution paths and roll-out plans for wireless and wireline networks (including broadband initiatives, such as fibre to the premises (FTTP), wireless small-cell deployment, 5G wireless and availability of resources and ability to build out adequate broadband capacity); our reliance on wireless network access agreements, which have facilitated our deployment of wireless technologies; choice of suppliers and those suppliers' ability to maintain and service their product lines, which could affect the success of upgrades to and evolution of technology that we offer (such as TELUS TV[®]); supplier concentration and market power for network equipment, TELUS TV and wireless handsets; the performance of wireless technology; our expected long-term need to acquire additional



spectrum capacity through future spectrum auctions and from third parties to address increasing demand for data; deployment and operation of new wireline broadband networks at a reasonable cost and availability, and success of new products and services to be rolled out on such networks; network reliability and change management; and uncertainties around our strategy to replace certain legacy wireline networks, systems and services to reduce operating costs.

- Capital expenditure levels and potential outlays for spectrum licences in spectrum auctions or from third parties, due to: our broadband initiatives, including connecting more homes and businesses directly to fibre; our ongoing deployment of newer wireless technologies such as 5G; utilizing newly acquired spectrum; investments in network resiliency and reliability; subscriber demand for data; evolving systems and business processes; implementing efficiency initiatives; supporting large complex deals; and future wireless spectrum auctions held by Innovation, Science and Economic Development Canada (ISED). Our capital expenditure levels could be impacted if we do not achieve our targeted operational and financial results.
- Regulatory decisions and developments including: the potential of government intervention to further increase wireless competition: the Canadian Radio-television and Telecommunications Commission (CRTC) review of the Wireless Code; the CRTC wireless wholesale services review, in which it was determined that the CRTC will regulate wholesale GSM-based domestic roaming rates and the setting of such rates; future spectrum auctions (including limitations on established wireless providers, spectrum set-aside that favours certain carriers and other advantages provided to new and foreign participants, and the amount and cost of spectrum acquired); restrictions on the purchase, sale and transfer of spectrum licences; the undetermined long-term impact of the CRTC's wireline wholesale services review; the potential impacts from the CRTC's decision to require pro-rated refunds when customers terminate their services; the CRTC's examination of the competitor quality of service regime; the CRTC's examination of the regulatory framework for message relay service; the CRTC's proposed phaseout of the local service subsidy regime; the impact from the review of Canada' cultural policies by the Minister of Canadian Heritage; vertical integration in the broadcasting industry resulting in competitors owning broadcast content services and timely and effective enforcement of related regulatory safeguards; the federal government's stated intention to review the Broadcasting Act and Telecommunications Act as announced

in the March 22, 2017 federal budget; and restrictions on non-Canadian ownership of TELUS Common Shares and the ongoing monitoring and compliance with such restrictions.

- Human resource matters including: recruitment, retention and appropriate training in a highly competitive industry, and the level of employee engagement.
- Process risks including: our reliance on legacy systems and ability to implement and support new products and services and business operations; our ability to implement effective change management for system replacements and upgrades, process redesigns and business integrations (including our ability to successfully integrate acquisitions, complete divestitures or establish partnerships in a timely manner, and realize expected strategic benefits), the risk that Manitoba Telecom Services Inc.'s postpaid wireless customers and dealers acquired by us from BCE Inc. may not be successfully impacted by available resources, system limitations and degree of co-operation from other service providers; our ability to successfully manage operations in foreign jurisdictions; information security and privacy breaches, including data loss or theft of data; intentional threats to our infrastructure and business operations; and real estate joint venture redevelopment risks.
- Ability to successfully implement cost reduction initiatives and realize planned savings, net of restructuring and other costs, without losing customer service focus or negatively affecting business operations. Examples of these initiatives are: our operating efficiency and effectiveness program to drive improvements in earnings before interest, income taxes, depreciation and amortization (EBITDA) including the expected benefits of the immediately vesting transformative compensation initiative; business integrations; business process outsourcing; offshoring and reorganizations, including any FTE employee reduction programs; procurement initiatives; and real estate rationalization. Additional revenue and cost efficiency and effectiveness initiatives will continue to be assessed and implemented, as required.
- Financing and debt requirements including our ability to carry out financing activities and our ability to maintain investment grade credit ratings in the range of BBB+ or the equivalent.

- Ability to sustain our dividend growth program through 2019 and ability to
 sustain and complete our multi-year share purchase program through 2019.
 These programs may be affected by factors such as the competitive environment,
 economic performance in Canada, our earnings and free cash flow, our levels of
 capital expenditures and spectrum licence purchases, and regulatory decisions and
 developments. Quarterly dividend decisions are subject to assessment and determination
 by our Board of Directors (Board) based on the Company's financial position and outlook.
 The share purchase program may be affected by a change in our intention to purchase
 shares, and the assessment and determination of our Board from time to time, based
 on the Company's financial position and outlook, and the market price of TELUS shares.
 Consequently, there can be no assurance that these programs will be maintained through
 2019.
- Taxation matters including: interpretation of complex tax laws by the tax authorities that
 may differ from our interpretations; changes in tax laws, including tax rates; tax expenses
 being materially different than anticipated; elimination of income tax deferrals through the
 use of different tax year-ends for operating partnerships and corporate partners; and tax
 collection authorities adopting more aggressive auditing practices.
- Litigation and legal matters including: our ability to defend successfully against investigations, regulatory proceedings, claims and lawsuits, including intellectual property infringement claims and class actions pending against us, as well as possible proceedings, intellectual property infringement claims and class actions based on consumer claims, data, privacy or security breaches and secondary market liability; and the complexity of legal compliance in domestic and foreign jurisdictions.
- Health, safety and the environment, including lost employee work time resulting from illness or injury, public concerns related to radio frequency emissions, environmental issues affecting our business including climate change, waste and waste recycling, risks relating to fuels systems on our properties, and changing government and public expectations regarding environmental matters and our responses.
- Business continuity events including: our ability to maintain customer service and operate our networks in the event of human error or human-caused threats, such as cyber attacks and equipment failures that could cause various degrees of network outages; supply chain disruptions; natural disaster threats; epidemics; pandemics; and the completeness and effectiveness of business continuity and disaster recovery plans and responses.

• Economic growth and fluctuations including: the state of the economy in Canada, which may be influenced by economic and other developments outside of Canada including potential outcomes of yet unknown policies and actions of the incoming U.S. administration; future interest rates; inflation; unemployment levels; effects of low oil prices; effects of low business spending (such as reducing investments and cost structure); pension investment returns, funding and discount rates; and Canadian/U.S. dollar exchange rates.

These risks and certain assumptions are described in additional detail in Section 9 General trends, outlook and assumptions and Section 10 Risks and risk management in our 2016 annual MD&A. That description is incorporated by reference in this cautionary statement but is not intended to be a complete list of the risks that could affect the Company.

Many of these factors are beyond our control or our current expectations or knowledge. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also have a material adverse effect on our financial position, financial performance, cash flows, business or reputation. Except as otherwise indicated in this document, the forward-looking statements made herein do not reflect the potential impact of any non-recurring or special items or any mergers, acquisitions, dispositions or other business combinations or transactions that may be announced or that may occur after the date of this document.

Readers are cautioned not to place undue reliance on forward-looking statements. Forward-looking statements in this Sustainability Report describe our expectations and are based on our assumptions as at its date and are subject to change after this date. Except as required by law, we disclaim any intention or obligation to update or revise any forward-looking statements.

This cautionary statement qualifies all of the forward-looking statements in this Sustainability Report.

Scope

Better by design

Sustainability is embedded in our core business strategy and our sustainability performance provides us with social, environmental and economic opportunity. Through our Sustainability Report, we aim to disclose our performance on material issues in a way that highlights the relationship between business success and sustainable development. As signatories to the <u>United Nations</u> <u>Global Compact</u> (UNGC), which asks companies to embrace universal principles, we also report our progress on human rights, labour, environment and anti-corruption.

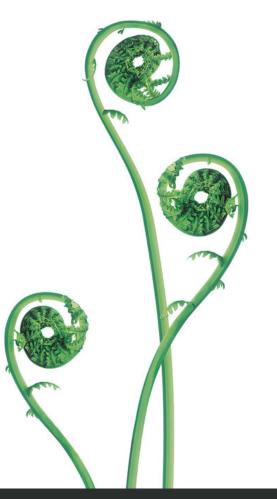
To continuously improve our sustainability reporting, each year we review how we:

- Construct and build our report
- Manage data and create content that matters
- Share our report, so that it is relevant, timely, accessible and understandable for stakeholders.

Our report is online and is compatible for viewing with mobile devices. Based on stakeholder feedback, and our goal of continuous improvement, we have again enhanced the way we share information by including video, infographics, stories and pictures. We have also improved the user experience by enhancing our website navigation.

Throughout our report, we highlight TELUS' focus on how we are making the future more friendly. We include data and information from the operations of some of the subsidiaries of TELUS International (Cda.) Inc. (TELUS International) and have once again increased the scope of our climate change disclosure. We declare our report in accordance with GRI-G4 guidelines at the core level and have engaged Deloitte LLP to confirm our declaration. We use the following symbol 🐼 to highlight information reviewed by Deloitte LLP, an Independent Registered Public Accounting Firm. Information contained in this 2016 report covers January 1 to December 31, 2016, unless otherwise stated. The material includes TELUS' domestic operations across Canada, as well as TELUS International, unless otherwise stated. Also contained in this report are 2016 targets and results, and longerterm targets for key performance indicators in alignment with key focus areas. Our long-term targets are forward-looking information that should be read together with the cautionary note regarding forward-looking statements.

We are always seeking ways to improve our Sustainability Report and welcome your feedback and suggestions. Please send any questions or comments to <u>sustainability@telus.com</u>.





Assurance

To: The Board of Directors and Management of TELUS

What we looked at: scope of our work

We have reviewed selected corporate-wide and business unit performance indicators in TELUS' 2016 Sustainability Report (the Report) for the year ended December 31, 2016. TELUS management is responsible for collection and presentation of the indicators and information set out in the Report. A review does not constitute an audit and, consequently, we do not express an audit opinion on the selected performance indicators.

TELUS was responsible for selecting performance indicators as well as their presentation in the report. We reviewed the selected quantitative indicators noted in Appendix A and TELUS' self-declaration that it has met the Core level of conformance with the GRI G4 requirements. We did not review the narrative sections of the Report, included as footnotes, except where they incorporated the selected performance indicators. Our responsibility is to express an independent conclusion on whether anything has come to our attention that causes us to believe that the selected performance with the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines. The GRI G4 definitions can be found at www.globalreporting.org.

What we did: assurance standards and key assurance procedures

We conducted our review in accordance with the International Standard on Assurance Engagements (ISAE) 3000 developed by the International Federation of Accountants. As such, we planned and performed our work in order to provide limited assurance with respect to the selected performance indicators that we reviewed. Our review criteria were based on the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines. Our procedures included:

- interviewing relevant TELUS management and staff responsible for data collection and reporting;
- obtaining an understanding of the management systems, processes and the relevant controls used to generate, aggregate and report the data at TELUS regional operations and head office;
- reviewing relevant documents and records on a sample basis;
- testing and re-calculating information related to the selected performance indicators on a sample basis; and
- assessing the information for consistency with our knowledge of TELUS operations, including comparing TELUS' assertions to publicly available third-party information.

Environmental and energy use data are subject to inherent limitations of accuracy given the nature and the methods used for determining such data. The selection of different acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

What we found - Our conclusion

Based on our work described in the Scope of Our Work section above, nothing has come to our attention that causes us to believe that the subject matter are not presented fairly, in all material respects, in accordance with the relevant criteria.

Deloitte LLP

Deloitte LLP Chartered Professional Accountants Vancouver, British Columbia, Canada May 1, 2017



Appendix A

Selected performance indicators reviewed

The following selected performance indicators were included in our review of TELUS' Corporate Social Responsibility Report for the year ended December 31, 2016.

GRI ref	Performance Indicator	Coverage	2016 value	
EC1	Community investment	Company-wide	\$42,345,315	
EN1	Paper Consumption	Canada	15 million sheets	
EN3	Total energy use – Direct sources	Company-wide	358,191 kwh (000s)	
EN3	Total energy use – Indirect sources	Company-wide	922,473 kwh (000s)	
EN15	Total direct greenhouse gas emissions	Company-wide	77,811 tonnes CO2e	
EN16	Total indirect greenhouse gas emissions	Company-wide	283,959 tonnes CO ₂ e	
EN17	Total direct and indirect greenhouse gas emissions by weight – air travel	Company-wide	7797 tonnes CO2e	
EN24	Number of reportable spills and releases	Canada	30	
EN24	Number of non-reportable spills and releases	Canada	231	
ENIO 4		Osraala	Liquids: 244 litres	
EN24	Estimate total volume of spills and releases	Canada	Gases: 1,679 kg	
EN27	Number of active and closed remediation sites	Canada	37	
			Carried over from previous y	ear: 6
HR3	Number of human rights cases opened and closed	Canada	New cases opened: 9	
			Cases closed: 4	
			British Columbia: 7,784	Quebec: 5,341
	Total workforce – By region	Company-wide	Alberta: 5,584	Newfoundland & Labrador: 54
_			Saskatchewan: 108	New Brunswick: 69
G4-10			Manitoba: 62	Nova Scotia: 87
			Ontario: 6,606	International: 25,557
			TO	TAL: 51,252
			Silent Generation:	Generation X:
			(C) 3 (Intl) 2	(C) 10,302 (Intl) 3,195
G4-10	Total workforce – By employment type	Company-wide	Baby Boomers:	Millennials:
			(C) 4,456 (Intl) 374	(C) 10,934 (Intl) 21,986
			То	tal: 51,252



GRI ref	Performance Indicator	Coverage	2016 value	
LA1	Employee turnover rate	Canada	Overall voluntary: 11.4%Silent Generation: 11Involuntary: 4.7%Baby Boomers: 23.89Total: 16.1%Generation X: 8.2%Female: 18.1%Millennials : 20.3%	
G4-11	Unionization – Percent of workforce unionized	Company-wide	TELUS domestic: 42% TELUS International: 0%	
LA6	Lost time accident rate	Canada	0.62	
LA6	Absenteeism rate	Canada	6.2	
LA9	Average annual training hours	Canada	Overall: 18.6Retail: 9.8Males: 19.6Single Contributor: 6.Females: 16.9Middle Manager: 15.3BU: 31.0Senior Manager: 19.4	3
LA12	Workforce demographics – Gender and minorities as a percent of TELUS workforce	Canada	Women overall: 35.8% Visible minorities overall: 16.7% Persons with disability overall: 2.3% Aboriginal overall: 1.4%	
PR5	Number of complaints lodged with the CCTS	Canada	TELUS: 570 Koodo: 207 Public Mobile: 46	
SO4	Percent of employees completing ethics training	Company-wide	100%	
SO5	Number of inquiries and complaints made to TELUS Ethics Office relating to the company's ethics policy	Company-wide	492	
SO5	Number of concerns determined to be breaches of ethics policy	Company-wide	146	

GRI guidelines

GRI guidelines

This report has been prepared using the Global Reporting Initiative (GRI-G4) Guidelines. The index below lists where you can find information related to each GRI criterion – either in this report, the <u>TELUS 2016 Annual Report</u>, or <u>Information Circular</u>. Combined, these reports form TELUS' reporting package of economic, social and environmental performance.

The 2016 Sustainability Report period of reporting consists of the 2016 calendar year and information reported within is confined to that period unless otherwise stated. TELUS has been publishing annual sustainability reports since 2000. Questions or feedback concerning content within the 2016 Sustainability Report should be directed to <u>sustainability@telus.com</u>.

Throughout the year we also provide information to the Dow Jones Sustainability Index and the Carbon Disclosure Project as well as other organizations that help investors understand the economic, environmental and social performance of companies.

This Report is organized and presented in accordance with the GRI G4 framework, using the "Core" option. Deloitte LLP has provided independent limited assurance of indicators symbolized throughout the report with **(A**).

TELUS supports the UN Global Compact and its ten principles covering human rights, labour, environment and anti-corruption. The Communication on Progress section of our Sustainability Report covers TELUS' progress in 2016 in these areas and we reference the UNGC Principles in our GRI table found in the "Appendix".





Digital inclusion

We are unleashing the power of the Internet to deliver the best solutions to Canadians at home, in the workplace and on the move. We are on a journey to redefine what it means to be a technology company in our ever-changing digital society.

Enhancing infrastructure

Network investments for a friendlier future

TELUS continues to make transformational network investments. These have enhanced the connectivity of Canadians by extending the speed, reach and capabilities of our advanced broadband networks.

In 2016, we continued investing in broadband infrastructure expansion and upgrades, as well as in network and systems resiliency and reliability.

This allowed us to:

- Provide faster available Internet speeds and greater capacity
- Connect more homes and businesses to high-speed Internet services and fibre
- Extend the reach of Optik TV
- Enhance our healthcare solutions
- Ready our networks for 5G wireless.



We continued to expand our 4G LTE wireless broadband network with LTE-Advanced (LTE-A), which now covers 74 per cent of the Canadian population. Our LTE network covers 97 per cent of the population, complemented by our 4G HSPA+ network covering 99 per cent of the Canadian population.

Notably, a January 2017 report by OpenSignal Network found that Canadian wireless networks offer speeds more than 10 megabits per second faster than the average global LTE connection and nearly twice that of a typical 4G connection in the U.S. Of particular note the report recognized TELUS:

- As a leader in 4G network coverage
- As having the fastest overall wireless network in Canada
- Is number one for low latency, an important factor as the demand for data services and applications continues to grow at an exponential rate.

In 2016, TELUS also continued our long-term strategy of making generational investments in urban and rural communities with the aim of delivering wireline broadband to as many Canadians as possible. We expanded our fibre footprint by connecting more homes and businesses directly to fibre-optic cable, and delivering faster broadband Internet speeds. At the end of 2016:

- Our wireline broadband coverage reached more than 2.9 million households and businesses in communities in B.C., Alberta and Eastern Quebec
- Approximately 37 per cent or 1.1 million of these premises are covered by fibre-optic cable which provides immediate access to our gigabit-capable fibre-optic network.

These transformational investments are part of our broader strategy to bring our fibre network of the future to communities across British Columbia, Alberta, and Eastern Quebec. This provides a distinct advantage to these communities and their residents by potentially stimulating employment and economic growth. It also allows healthcare providers, educators and technology companies to reimagine how they deliver services and develop entirely new solutions. In addition, our wireline broadband investments are laying the foundation for future 5G wireless networks. In 2016, TELUS capital expenditures were close to \$3 billion or 23 per cent of total operating revenues, slightly higher than 21 per cent in 2015. This includes close to \$1 billion and \$2 billion that we invested in our wireless and wireline networks respectively. It also reflects our continued focus on investing in wireless and wireline broadband network infrastructure expansion and upgrades, as well as in network and systems resiliency and reliability, to provide faster available Internet speeds and greater capacity, connect more homes and businesses to high-speed Internet services, extend the reach of Optik TV, and enhance our healthcare solutions.

Capital expenditures by region

\$ millions	2016	2015	2014
British Columbia	1,133	866	752
Alberta	906	862	862
Saskatchewan	2	3	2
Manitoba	29	10	24
Ontario	456	458	406
Quebec	383	330	283
Atlantic Canada	4	2	3
Outside Canada	55	46	27
Total capital expenditures	2,968	2,577	2,359

TELUS invests internationally to provide customers greater breadth of business process outsourcing services.

Since 2000, TELUS has invested more than \$32 billion in technology and communications infrastructure across the country to significantly enhance the connectivity of Canadians.



In 2017, TELUS plans to continue making significant investments in our wireless and wireline broadband infrastructure, with targeted capital investments of approximately \$2.9 billion to support customer growth, technology evolution and reliability. For more information and a complete set of 2017 financial targets and assumptions see our <u>fourth quarter 2016 results</u> and <u>2017 targets quarterly report</u> issued February 9, 2017 or our 2016 Annual Report.

Network and systems reliability

Reliability matters to our customers. High quality and reliable products, services, and customer interactions have a great impact on a customer's likelihood to recommend TELUS. The backbone of our brand is consistently elevating our network and systems stability. Our customers and employees expect and deserve an excellent digital experience with dependable 'always up' products and services. We are driving reliability improvements in parallel with our sustainability strategy.

Customers First

Our number one strategic priority of putting customers first includes focusing on investments that enhance reliability and security, so we can deliver consistent results and excellent operational levels for our products and services. In 2016, we:

- Increased the resiliency and efficiency of our trouble ticketing system, allowing us to more quickly handle customer concerns
- Implemented improved resiliency solutions for five call centres in Quebec, supporting 350 of our agents
- Outperformed our internal targets for measuring customer experience in terms of the quality of our system release and change management initiatives by 190 per cent -- leading to less disruption and impact to our customers.

Culture

Reliability is core to our culture, which is vital to providing products and services that go beyond our customer's expectations -- and at times, their imaginations. With new network and system monitoring capabilities introduced in 2016, TELUS employees are able to be more proactive in providing customer support by identifying potential issues before they impact customers. As an organization we continue the effort and focus set in 2015 - recognizing reliability leaders in our community and providing team members with the support they need to keep reliability top of mind.

Driving Improvements

Putting our customers first means we work to prevent problems and resolve them quickly if they do occur. Restoring customer service is our immediate focus when service is interrupted, which is why we make continued investments into programs to improve time to repair and increase change management success rates. In 2016, we:

- Reduced the total number of planned outage hours by 10 per cent
- Improved our ability to troubleshoot customer issues with our Enterprise Notification platform
- Shared learnings across TELUS to drive further improvements in the future.
- In 2017, we intend to:
- Continue our customers' first commitment by focusing on
 investments that prioritize enhanced reliability and sustainability
- Support and leverage reliability champions within our organization to sustain our cultural advances
- Provide dependable 'always up' products and services by pursuing continued improvements to lower customer impacts
- Lower our planned outage hours, improving our change success rates and improving our ability to troubleshoot customer issues.



Bridging digital divides

In an increasingly digital world, access to information and communication through the Internet can make a big difference in the lives of Canadians. At TELUS, we believe in creating an electronic pathway to affordable Internet that will remove obstacles for low-income, single-parent families or those on disability assistance to have access to the resources they need.

Internet for Good

TELUS Internet for Good: building a brighter future for families

In October 2016, approximately 18,000 families in need in British Columbia received an offer to activate TELUS High Speed Internet for only \$9.95 (plus applicable taxes) per month through the TELUS Internet for Good pilot. More than half of all Canadian families with incomes under \$30,000 are without Internet connectivity, and when surveyed about reasons for not having Internet access, low-income parents cited three main barriers: price, hardware, and education.

To remove obstacles and improve access to this critical resource, TELUS collaborated with the British Columbia Ministry of Social Innovation and Social Development in qualifying eligible participants for the program. A partnership with the BC Technology for Learning Society also gave participating families an opportunity to purchase a low-cost refurbished computer. Digital literacy training consultants were also made available to all participants of this program through Decoda Learnings Solutions.

At the end of 2016:

- More than 1,600 single-parent families who currently receive income or disability assistance had registered for the program
- More than 100 of those families have taken advantage of a low-cost refurbished computer.

Access to the Internet gives families in need the opportunity to succeed --benefiting our community members, our business, and the economy. This type of program offers the promise of a friendlier future in a digital world.

A look ahead

In 2017, we will extend our Internet for Good program into Alberta in partnership with the Ministry of Human Services and Alberta Computers for Schools.



Connecting Canadians

Canadian Mobility Offer for new Canadians

The Government of Canada has resettled more than 25,000 Syrian refugees, representing approximately 7,500 families, since November 2015. We want to make certain our new Canadians feel welcome and remain connected to family and friends.

In 2016, we collaborated with <u>Computers for Success</u>, the Government of Canada, CN, CIBC, Microsoft and Facebook, to create Welcome to Canada bags for new Canadian families.

TELUS supplied:

- 7,500 refurbished mobile devices, boxed and equipped with chargers
- 7,500 credit vouchers for service
- 7,500 SIM cards
- A \$25,000 cash contribution to Computers for Success in support of deployment to Immigration Service Agencies across Canada.



Other items included in the Welcome Bags:

- A free refurbished computer from Computers for Success for each family
- A CIBC Welcome Banking Package.

Safely connecting Canadian youth while they are receiving medical care

Technology, when integrated to the healthcare system, can improve the patient experience and dramatically impact a child's psychological well-being. Accessing social networks and technology is especially important to young patients who want to stay connected while receiving care.



Developed by Kids' Health Links Foundation, in partnership with TELUS Health, Upopolis is an innovative social support platform and networking tool. Upopolis has been helping young patients safely and securely access kid-friendly medical content and stay connected to their families, friends and schools while undergoing care for over 10 years. This tool explains medical terms in simple language, and also helps kids connect with other kids across Canada who are dealing with a medical diagnosis, and to family and friends at a time when they can feel very anxious and isolated. By alleviating the stress, isolation and loneliness experienced by kids and teens while they are undergoing medical treatment, Upopolis is an incredibly powerful tool for pediatric health.



"Keeping our hospitalized kids socially connected is an important therapeutic tool. Helping to make that happen safely and securely is a mission I feel privileged to lead." Basile Papaevangelou, Chair, TEC Canada

Social Purpose Marketing

We engage Canadians through national marketing campaigns that are aligned to our community investment pillars. Our philosophy is also supported by regional and local cause marketing programs, and through our social media platforms that share the many compelling stories of how we care for our communities.

By the numbers:

- 89 cause marketing campaigns launched in 2016, resulting in \$1.9 million in donations made possible by consumer action
- Fibre for Good program supported 88 charitable partners in 25 communities.

Fibre for Good: the arrival of our new network

As part of our commitment to improve connectivity in B.C. and Alberta, TELUS created opportunities for our customers to support causes that they believe in. To celebrate the arrival of TELUS PureFibre, we created the Fibre for Good[®] program, which allowed our customers to direct a \$25 grant to the local registered charity of their choice.

Since the Fibre for Good campaign started in 2014, TELUS, in partnership with our valued customers, has invested more than \$300,000 in 216 local charities across 29 communities in B.C. and Alberta.

In 2016, the Fibre for Good program continued to make our communities stronger. Our grant of \$145,000 supported 80 charities. Together, we have helped to make communities stronger with new parks, improved healthcare and updated libraries.

A Fibre for Good Success Story

One of our Fibre for Good success stories is the United Way North Okanagan Columbia Shuswap. We worked with Vernon, B.C., as one of the communities in 2016. When one of our regional marketing managers, Brangwen Mooney, hand delivered the cheque to Linda Yule, Executive Director, she received a written thank you note on top of her heartwarming interaction. It read:



"Thank you TELUS Fibre for Good! United Way North Okanagan Columbia Shuswap was very pleased to be one of the partner charities to receive funds from TELUS Fibre for Good. United Way funds 30 programs in our region that help kids be all they can be, help move people from poverty to possibility and have healthy people in strong communities. Thank you TELUS for supporting our United Way Community Fund and helping us work toward a healthy, inclusive community."

-- Linda Yule, Executive Director, United Way North Okanagan Columbia Shuswap"

To learn more about TELUS Fibre for Good please visit: <u>https://fibre.telus.com/</u> fibreforgood

Accessibility

Putting all customers first

TELUS is committed to treating all people in a way that allows them to maintain their dignity and independence. We believe in integration and equal opportunity. We are committed to meeting the needs of people with disabilities in a timely manner, and will do so by:

- Preventing and removing barriers to accessibility
- Meeting and exceeding legislated accessibility requirements.

In 2014 and 2015, TELUS worked with a third-party to audit one of our TELUS mobile apps. The intention of the audit was to create an "Accessibility Requirements" document for iOS and Android for TELUS mobile apps. As a result, we now have standards and guidelines for any TELUS mobile app as part of our internal review process. This ensures that any new TELUS apps and webpages follow accessibility guidelines and <u>standards</u>.

In 2015, TELUS developed a <u>Mobile Device Accessibility Feature Checklist</u>. This checklist details the various features on each device so that TELUS provides a range of accessible device options to customers with visual, hearing, cognitive, physical and speech disabilities. The document is part of our device procurement processes.

On our <u>website</u>, we list the mobile devices that have passed through our accessibility audits and support accessibility features. The list includes the brands and models we offer and the features that provide increased access for persons with varying levels of abilities.

In 2015, we hired an accessibility consultant to help build awareness, culture and strategy around accessibility and drive innovation for this specific customer segment. This builds on the market intelligence surveys we use to identify whether we are offering easy-to-use products and services for people with a disability. Also in 2015, to better serve our wireless customers who are deaf or hard of hearing, we introduced a \$15 discount on any in-market smartphone postpaid plan. This discount was implemented for these customers because they do not use the voice component included in the wireless base rate plan.

In 2015 and into 2016, we expanded our program that provides a customized after-sale service to our wireless customers through our <u>TELUS Learning</u>. <u>Centres</u>[®]. Conducted by TELUS experts, these one-to-one or group sessions help customers maximize the benefits from their devices and plans. Persons with disabilities can use the services at the TELUS Learning Centres to focus on the specific features in a smartphone that increase the accessibility of wireless communications, depending on the customer's specific needs.

Additionally, in 2016 the Canadian Radio-television and Telecommunications Commission (CRTC) issued <u>Decision 2016-193</u>, where it approved TELUS' proposed deferral account accessibility initiatives to fund \$400,000 in projects to enhance accessibility. These projects include accessibility improvements to the TELUS Québec website, the TELUS webmail portal, as well as audits of several mobile devices. These audits examined the accessibility of the devices we offer, including auditing the wireless devices against a list of 28 accessibility features and 11 personas. These audits analyzed the newest of our most popular wireless devices representing a range of mobile platforms and price points. These additional audits confirmed that TELUS continues to offer a broad range of wireless devices that provide different service features that appeal to customers with limited abilities including sensory, cognitive and mobility. Some of these service features include:

- Built-in screen readers
- Alternate input device support
- Voice recognition
- Speech-to-text
- Video calling and messaging
- Audible, visual, and vibration alerts and notifications
- Hearing aid compatibility
- Teletypewriter ("TTY") support.

TELUS regularly reviews the mobile devices in our inventory to make certain they meet the highest possible level of accessibility.

Also in 2016, TELUS submitted a still-pending <u>application</u> to the CRTC seeking approval for the remainder of TELUS' deferral account funds to be dedicated to improve the accessibility of telecommunications services. The proposed initiatives represent over \$1.3 million in projects to enhance the accessibility of our telecommunications services. The proposed initiatives would result in the following accessibility improvements:

- A lower-price, easy-to-use wireless phone for blind persons for at least five years
- Additional accessibility audits of TELUS wireless handsets until 2020
- Creation of an internal wireless device accessibility guidelines
 document to be operationalized into our procurement processes
- Creation and documentation of TELUS App Accessibility Guidelines
 and Standards
- Direct Customer Insights into TELUS' Retail Store experience across the different disability groups
- Implementation of the Near Field Communications technology that will allow customers to access information about TELUS' products or services in an accessible format via the customers own mobile device or a device available at the retail store.

We remain committed to building a culture of inclusiveness. We put all of our customers first. Regardless of their devices, screen sizes, abilities and capabilities, we want all customers to enjoy an equally delightful and accessible TELUS experience.

Aboriginal relations

Collaboration with Aboriginal governments and organizations

The TELUS Aboriginal Relations team works with Aboriginal governments and organizations, as well as provincial and federal agencies, to create respectful and meaningful relationships to support TELUS' strategic business initiatives and policies. We recognize and value the important relationship Aboriginal peoples have with the land, and we respect cultural and environmental sensitivities, as well as the unique social and historic identities of individual nations and communities. By engaging in meaningful consultation with respect to Aboriginal title, rights and interests, treaty rights and self-governance, we are bringing connectivity and technological improvements to Aboriginal communities and extending our service infrastructure.

In 2016, TELUS continued to collaborate with the All Nations Trust Company (ANTCO) on the implementation of the <u>Pathways to Technology</u> program. Through this initiative we are able to provide affordable high speed internet services to First Nations communities in B.C., allowing us to support:

- Social and economic development
- Public safety
- Local Government activities
- Healthcare
- Educational opportunities.

As an important part of our broad fibre-optic infrastructure upgrade program, we work proactively with Aboriginal governments and their communities to support new First Nations residential and commercial developments on:

- Reserve lands
- First Nations Land Management Act lands
- Self-government and treaty lands
- Private lands.



These projects required consultation and collaboration with First Nations.

The TELUS Aboriginal Relations team works closely with Aboriginal governments to secure approval and cooperation, in compliance with federal, provincial and First Nations laws, for projects built on First Nation land. Through this collaborative work, TELUS provided enhanced wireline and wireless services to community buildings, including:

- Residences
- Schools
- Health centres
- Government offices.

In 2016, we also worked cooperatively with BC Hydro, Tla'amin Nation and the governments of B.C. and Canada, to negotiate various treaty tenure agreements over treaty lands in time for the effective date of the Tla'amin treaty.

TELUS will continue to learn from its positive experiences working alongside Aboriginal governments. Together, we are building best practices in community engagement and provisioning of services.

Privacy and trust

Millions of Canadians use the Internet and mobile devices, including smartphones and tablets, to keep in touch, study, work, shop and stay healthy. The rising integration of technology into both our personal and professional lives is changing the way we communicate and share information about ourselves. This shift is creating new challenges related to information security, effective oversight and accountability. It is vitally important to us that our customers know they can trust us to be:

- Respectful of their privacy
- Transparent about how we handle, use and secure their personal information.

Privacy governance Building trust

Privacy for our customers

At TELUS, we respect our customers' privacy and take great care to safeguard personal information. As part of our ongoing commitment to putting customers first, we have a long-standing policy of protecting privacy in all of our business operations. We believe that an important part of protecting privacy is to be clear about how we handle customers' personal information, and to make information about our approach easily accessible. TELUS privacy documents are reviewed regularly and updated as required.

To help our customers understand TELUS' privacy practices, we have created information sources that explain those practices. These sources provide varying levels of detail, allowing the customer to choose the level of detail that is most suitable in helping them make informed decisions. Importantly, we want customers to understand the purposes for which we collect, use and disclose personal information about them. Accordingly, we provide the following information on our privacy <u>website</u>:

- The <u>TELUS Privacy Commitment</u> provides a summary and detailed view of our customer privacy practices. Through this commitment, we assure our customers that unless we have their express consent, we will not disclose personal information to marketers of third-party products. Our Commitment also provides specific examples of the information we collect and the purposes for which we use it.
- The <u>TELUS Privacy Code</u> is a lengthier document that describes the broad privacy principles that we adhere to in the handling of personal information of both our customers and employees.
- The <u>Frequently Asked Question</u> (FAQ) document was created to answer the most common customer questions we receive regarding TELUS' privacy practices. Customers can also call us at 1-800-567-0000 or <u>email us</u>.



All three documents are available online at <u>www.telus.com/privacy</u>, and can be printed without changing web pages. On the same page, we also include a <u>Cookies Notice</u> that describes the limited purposes for which we use cookies at TELUS.

TELUS has also has a privacy commitment specifically for our employees.

We regularly review our privacy documents to make certain they are relevant and consistent with changing technologies and laws, and continue to meet our customers' evolving needs.

Additional policies complement and support <u>TELUS' Privacy Commitment</u> and <u>Privacy Code</u>, including our <u>Code of Ethics and Conduct</u>, Corporate Security policies (confidential), <u>Supplier Code of Conduct</u> and the Code of Conduct for Business Sales Activities (confidential), all of which support confidentiality of customer information.

In 2016, we added new information to our privacy page to help our customers understand how we protect their privacy when performing data analytics. We added a video about how it is possible to deliver on the promise of big data while protecting privacy, as well as an infographic about de-identification and aggregation. We believe that providing this type of information to our customers is a critical component of our commitment to transparency and putting our customers first.

Data governance

TELUS has an appointed Chief Data and Trust Officer to oversee the TELUS Data and Trust Office. This team is responsible for maintaining an accountable privacy management program specifically designed to protect customer and employee privacy, and for setting policies and procedures to earn and maintain their trust in our data handling practices. Our privacy team works closely with the Security Office to properly safeguard our customer and employee information. For privacy and security matters that involve countries outside of Canada, we work with privacy lawyers with local expertise. Internal controls include the following:

- Our annual internal Enterprise Risk and Control Assessment survey includes questions specific to privacy that may identify emerging risks for TELUS
- We require Privacy Impact Assessments for all projects that involve the collection, use or disclosure of personal information. These assessments are reviewed and approved by Certified Privacy Professionals in the TELUS Data and Trust Office as well as by members of the TELUS Chief Security Office who are certified information security systems professionals and/or global information assurance professionals
- TELUS has Privacy Breach Response and Notification protocols embedded into our processes and training modules, which are reviewed regularly
- We take privacy and security training and awareness seriously, and we use a variety of different methods to assist our TELUS team members in respecting and protecting our customers' privacy.

In 2016, we embraced the seven foundational principles of <u>Privacy by Design</u>, earning certification for two of our services, IoT Marketplace and Insights' Custom Studies. In 2017, we will pursue further certification of our services.



Privacy complaints

We are pleased to report that no formal privacy complaints were received by TELUS from the Office of the Privacy Commissioner of Canada in 2016.



privacy complaints from the Office of the Privacy Commissioner of Canada

Transparency

The importance of transparency

In 2016, there was continued global discussion about disclosures of personal information to government organizations for law enforcement purposes. Accurate information about the nature and volume of personal information requests by law enforcement to private companies helps inform this ongoing discussion, and will shape our country's privacy landscape. It is in that spirit that we provide our fourth annual transparency report, which provides insight into our approach responding to requests as well as the volume and types of requests we receive. We are proud of our record of openly sharing with our customers the details about how we respectfully handle and secure their data.

At TELUS, we respect our customers' privacy and take great care to safeguard personal information. As part of our ongoing commitment to putting customers first, we have a long-standing policy of protecting privacy in all of our business operations. As a national telecommunications company, we routinely receive requests for information about our customers from law enforcement agencies and other government organizations. We are legally required to respond. This transparency reporting is intended to provide insight into our approach responding to these requests and data regarding the numbers and types of information requests we received in 2016. We report this data alongside 2015 and 2014 data for comparison purposes.

Industry Canada published voluntary <u>Transparency Reporting Guidelines</u> in 2015. TELUS' transparency reporting practices were already consistent in approach, although there were some differences. We have historically provided more detailed breakdowns of the law enforcement requests we receive and in other areas, we provided less detail.

This year's transparency reporting mirrors our previous formats, allowing us to provide trends year over year and also the greatest degree of granularity that we believe is helpful and informative.

The most notable variation in the data was between 2014 and 2015, when name and address requests went from more than 30,000 to zero. This was due to the 2014 *R.v. Spencer* decision of the Supreme Court of Canada, which clarified law enforcement agencies require a warrant to obtain the name and address information of our customers unless an individual's life, health or security is at risk, or the information is readily available in a published telephone directory. The decision resulted in the complete elimination in 2015 of voluntary disclosures made in response to non-emergency requests without a warrant.

Similar to 2014 and 2015, the vast majority of the requests we received in 2016, were for information to help find or communicate with someone in an emergency. Calls from a local police detachment or 9-1-1 operator centre asking for help locating someone who is lost or suicidal are typical examples of this type of request. We provided information in response to 58,721 requests for information in an emergency last year, an average of 161 requests every day.

Consistent with our Customers First philosophy, TELUS will challenge information requests that go beyond what is lawful. For example, we will challenge any request or court order that we believe goes beyond what a judge is authorized to order under applicable legislation, such as the Criminal Code, and we will only release confidential customer information when we are satisfied it is appropriate to do so. When necessary we will take an issue to court and have done so in the past.

In 2016, we challenged or declined to provide information in response to an estimated eight per cent of the court orders we received because we thought the order was invalid or over-reaching. This compares with an estimated 15 per cent in 2015 -- a seven per cent decline that we cannot attribute to any one factor; however, we do believe this variance can largely be attributed to the continuing increase in due care that law enforcement exercises in preparing their requests for records via court order. This demonstrates a positive outcome in the protection of customer privacy.

TELUS intends to continue advocating for our customers' privacy, while responding to legal court orders as required. It is a fine balance, and we are pleased to present this transparency disclosure as part of the evolving dialogue on this matter of personal security.

Approximate Numbers of Requests from Government Organizations¹

	2016	2015	2014
Court Orders/ Subpoenas ²	5,196	4,517	4,005
Court Orders	4,678	3,993	3,550
Subpoenas	517	523	453
MLAT Orders	1	1	2
Customer Name and Address Check ³			30,946
Emergency Calls	58,721	51,413	61,596
Internet Child Exploitation Emergency Assistance Requests			144
Legislative Demands	1,266	1,237	1,247
TOTAL	65,183	57,167	97,938

1 TELUS has calculated these numbers based on how requests are recorded in our systems. We note that this may or may not be consistent with how other telecommunication services providers calculate the number of requests they receive in these categories.

2 TELUS measures the number of requests in this category based on numbers of court orders or subpoenas received, rather than the number of impacted subscribers. Many court orders and subpoenas request information with respect to more than one TELUS subscriber.

3 Since 2015, this process has been handled by Court Order.



Types of requests TELUS receives

Court Order/ Subpoena Description: an order or subpoena is a legal demand from a court or other legal authority directing TELUS to provide customer information. The information may be associated with any TELUS service, including wireless, wireline or Internet. Most orders and subpoenas require us to provide historic information, such as telephone records. A small minority of the court orders require TELUS to provide realtime information (e.g., the content of a telephone call, by means of a wiretap, or the location of a cell phone).

Applicable law: Criminal Code of Canada.

Description: these requests take the form of an order issued by a Canadian court pursuant to the Mutual Legal Assistance in Criminal Matters Act. Typically, these are requests for aid from a law enforcement agency in another country related to a criminal investigation, and require an order from a Canadian court. We don't respond to requests that come directly from foreign agencies, but will provide information if ordered to do so by a Canadian court.

Applicable law: The Mutual Legal Assistance in Criminal Matters Act.

MLAT Orders

Emergency Calls

Customer

Name and

Address

Checks

More than half of such requests (42,761 in 2016) came from 9-1-1 call centres seeking help locating a caller in distress. The remaining 5,443 requests came from local police or emergency service providers.

In these cases we only provide the information needed to respond to the emergency.

Applicable law: PIPEDA and CRTC rules with respect to customer confidentiality.

customer information, such as customer name and address on a voluntary basis. These requests were usually made to identify an individual associated with a telephone number, most often so police can ensure they are serving a warrant on or arresting the correct individual. The June 2014 decision of the Supreme Court of Canada in the case of R. v. Spencer made it clear that a court order is required for TELUS to provide customer name and address information except in an emergency or where the information is published in a directory. Consequently, TELUS has not complied with any non-emergency requests for voluntary

disclosure since this decision.

Applicable law: Personal Information Protection and Electronic Documents Act (PIPEDA), CRTC rules with respect to customer confidentiality; see also applicable TELUS Service Terms and customer Privacy Commitment.

Description: these are requests for TELUS to provide basic

Description: these are urgent requests for help locating or assisting where an individual's life or property is at imminent risk. For example, TELUS will provide police or other emergency responders with location information for a wireless device belonging to someone who is lost or in danger.

Description: In response to police requests, in the past TELUS would disclose the name and address of a customer using an IP address to help the police investigate a real-time case of online child sexual exploitation. Previously, it was understood that such disclosure without a court order was permitted under Canadian law and TELUS' service terms. However, the Supreme Court of Canada in the Spencer case (referred to above) has ruled that such disclosure requires a court order, except in an emergency. Accordingly, TELUS has amended its practices in this regard.

Internet Child Exploitation Emergency Assistance Requests

Since that court decision, TELUS collaborated with law enforcement agencies to establish a new process to expedite the sharing of this critical information through court orders where children are in danger, while abiding by the spirit and language of the Spencer decision.

TELUS has always required a court order to provide customer information associated with an IP address in other cases.

Applicable law: PIPEDA, Criminal Code of Canada

Description: this is a request for information by a government body, where TELUS is required by applicable legislation, to provide the information. For example, pursuant to the Income Tax Act, the Canada Revenue Agency may require TELUS to disclose certain customer information.

Applicable law: any federal or provincial legislation that authorizes a government body to request information from TELUS.

Frequently asked questions

What is the process for responding to information requests?

TELUS has a process for carefully assessing information requests received from law enforcement agencies and other government organizations:

- A request is received and logged by TELUS' Corporate Security department.
- A specially trained and authorized TELUS Security team member reviews the request to ensure it has been correctly prepared and is legally valid. In the case of emergency calls, this involves obtaining confirmation that the situation involves an imminent risk to an individual's life or property.
- If the representative has concerns, they are brought to the attention of a supervisor, TELUS' legal department and privacy office, or the agency or organization, as appropriate, for resolution.
- Once the representative is satisfied that the request is valid, they will take appropriate steps to properly respond to the information request.
 For example, this could include searching relevant TELUS databases for the requested information.

How long does TELUS keep my information?

TELUS keeps customer information only as long as necessary to comply with the law and to fulfill our business purposes. For example, TELUS retains copies of customer bills for approximately seven years to satisfy legal requirements such as taxation law.

What legislation applies to the protection of customer privacy?

TELUS' telecommunications businesses are governed by the federal *Personal Information Protection and Electronic Documents Act* (PIPEDA) and by rules prescribed by the CRTC with respect to customer confidentiality.

This transparency reporting covers TELUS' telecommunications businesses in Canada, including wireless, wireline and Internet.

Legislative

Demands

Anti-bribery and corruption

Bribery and corruption is one of the primary obstacles to economic development. It undermines the rule of law, weakens trust in public institutions and challenges democratic principles. Bribery and corruption can exist in any society, rich or poor, creating a need for continued vigilance by regulators, law enforcement agencies and industry leaders.

Risks from bribery and other forms of corruption are a concern for companies both in Canada and abroad. Companies may be confronted with demands for bribes, challenged by competitors acting corruptly or faced with employees violating their codes of conduct. TELUS mitigates these risks by implementing and enforcing a robust Anti-Bribery and Corruption Compliance Program that is supported by clear policies, processes and controls.

Since 2012, we have addressed anti-bribery and corruption risks through a risk-based framework that includes:

- Senior management involvement and support: senior leaders across TELUS were identified as responsible and accountable for making sure the Anti-Bribery and Corruption Compliance Program is effectively implemented and consistently monitored. Senior executives set the tone to create a culture where bribery is unacceptable.
- Corporate compliance policies and procedures: a specific Anti-Bribery and Corruption Policy was rolled out to the TELUS team after being approved by the <u>TELUS Board of Directors</u>. The policy provides further clarity and guidance for employees and third parties engaged by TELUS, and supplements other guidance in the <u>TELUS</u> <u>Code of Ethics and Conduct</u>, the <u>Supplier Code of Conduct</u>, and our Code of Conduct for Business Sales Activities.
- Training and education: our annual Integrity training highlights our zero-tolerance approach to bribery and corruption. Further training

continues to be provided through our Business Sales Code of Conduct and Anti-Bribery and Corruption programs.

 Incentives and consistent disciplinary procedures: annual performance objectives were created for employees responsible for implementing and monitoring the compliance program. Failure to act in accordance with the Anti-Bribery and Corruption Policy may subject employees to disciplinary action, which may include dismissal.

See section 10.9 of the MD&A in our <u>2016 Annual Report</u> for a discussion of legal and ethical compliance.





Transforming healthcare

We believe that Canadian healthcare will be difficult to sustain if changes are not made. Healthcare experts agree that there is a dire need for increased patient satisfaction, experience, and safety, as well as improved clinical access and decreased costs.

We have identified five key issues where health information and our communications technology can make a positive difference:

- Chronic Disease Management
- Medication Management
- Better Access
- Prevention and self-care
- Performance Improvement.

Making a difference

Enhancing healthcare and well-being for all Canadians

Chronic disease management

The cost of chronic illness, disability and death in Canada is estimated at \$80 billion.

For example, diabetes affects three million Canadians, cardiovascular disease is the underlying cause of death for one in three people, and cancer represents at least nine per cent of total healthcare costs across the country -- and this is just a snapshot of well-being.

We believe that the most effective chronic disease management programs are patient-centric, encourage self-management, are built on evidence-based outcomes, and are supported with leading tools and technology.

Examples of the tools and technology that TELUS offers to help address chronic disease management include:

- <u>Electronic Medical Records</u>: capturing, organizing and displaying patient data in a customizable, user-friendly way aiding in identifying those at risk and those requiring routine screening
- <u>Personal Health Records (PHR)</u>: sharing data securely between patients and healthcare professionals and giving patients a way to manage their own health
- <u>Remote Patient Monitoring</u>: allowing physicians to closely monitor patients -- no matter where they are located and allows patients to be at home sooner or longer
- <u>OACIS Clinical Information System</u>: providing a consolidated patient history leveraging existing health infrastructure in a way that gives clinicians access to the most timely, accurate data right at their fingertips.

Medication management

Adverse drug effects, prescription errors and a patient not taking their medication are widespread issues across the country:

- About 40 per cent of hand-written prescriptions have errors
- Up to 50 per cent of patients do not take medication properly
- 20 per cent of prescriptions are not filled at all.

In fact, the most common reason for a visit to the hospital's emergency room is bad medication management. An equally important issue is that drug costs are continuing to escalate rapidly --- putting pressure on patients, employers and governments.

We believe technology can help optimize drug selection for patients, provide easier identification of drug interactions, ensure appropriate therapy management, and overall, deliver greater patient outcomes.

TELUS offers the tools and technology to help address medication management:

- <u>Drug Information System (DIS)</u>: connecting pharmacists, physicians and other authorized healthcare providers to view and contribute to patient medication profiles
- <u>TELUS Health Integration Platform</u>: securely connecting pharmacists, physicians and other healthcare professionals to a patient's EHR, empowering teams with the accurate, complete, up-to-date information they need to provide comprehensive care
- <u>Assyst Rx</u>: automating prescription dispensing, and aiding in effectively managing patient files, prescriptions, inventory, orders and more.



Better access

More than one billion diagnostic events, 30 million doctors' office visits and 3.5 million surgical procedures are performed annually in Canada. Almost all of these appointments are booked manually, resulting in delays, errors and an enormous clerical burden, as well as a continuity of care that could be improved. In fact, about 33 per cent of Canadians say they are unhappy with wait times and access to care and the country continues to obtain very low scores in international rankings.

As a solution, TELUS offers access to <u>iScheduler</u>, a tool that uses one platform to simplify access to and increased visibility of information. This allows for more efficient coordination of time, people and resources.

Prevention and self-care

Canada lags behind other countries with respect to providing tools and technology to help patient's self-management, and inform patients about their lifestyle, medication and treatments. Though the system is falling short, Canadians are still waiting for this technology:

- 66 per cent want remote and home monitoring technologies that can help them make more informed decisions
- More than 60 per cent have confirmed their desires for Electronic Health Records.

Online health tools are available to help individuals maintain healthier lifestyles, understand their risks for chronic disease and other conditions, modify their behavior in order to mitigate the risks, and, if they have an illness, tools to help them effectively manage it. Our Electronic Medical Records, Personal Health Records and Remote Patient Monitoring solutions enable patients, doctors and pharmacists enable better patient outcomes.

Performance improvement

In Canada, the majority of healthcare experiences happen at the community level, in isolated patient encounters with health professionals who operate separately from one another, leading to a financially inefficient system. On average, national spending on healthcare has been increasing eight per cent each year over the last decade. Because of this, Canada's healthcare system also fails to provide equal access to high quality care.

Much-needed change is possible through technology, and our innovative tools and technology enable us to partner with stakeholders across the health sector, including consumers, physicians and pharmacists, our primary healthcare ecosystem. Additionally, we partner with health regions, hospitals, insurers, employers, workers' compensation boards and allied healthcare providers such as chiropractors, physiotherapists and massage therapists.

In 2016, through our efforts to transform healthcare delivery in Canada, we identified several important opportunities including personalized medicine and the impact of high-cost specialty drugs, innovative models of care delivery across the globe, and ways that the digital health sector can proactively step up to support transformation. A summary of these thoughts and opportunities can be found on our <u>website</u>.



To learn more about our plans and events for 2017, please click here.

Tools and technology

Technology for better healthcare

Electronic medical records

Electronic medical record (EMR) technology is at the heart of the primary healthcare ecosystem, providing physicians with an electronic means to store, retrieve and update patient information. Technology in primary care has farreaching potential to enable better patient care and overall health outcomes. Today's primary healthcare ecosystem is technology-enabled, collaborative, accessible and most importantly, secure. These tools enhance patient outcomes and provide access to critical patient data anywhere, anytime.

Remote patient monitoring

Technology empowers patients to actively manage their chronic conditions and allows for better, more efficient and meaningful collaboration with their care providers. Remote patient monitoring technology provides patients with the tools and additional support to manage their health issues from the comfort of their own home. Patients are empowered to better self-manage chronic diseases by monitoring their blood pressure and other health factors from their homes and are able to share this information electronically with their physicians and other healthcare providers.

Today, patients managing chronic conditions do so for about 5,800 waking hours each year while typically spending fewer than 10 hours with a healthcare professional. This is where integrated technologies that support home and community based care, like home health monitoring, hold great promise.

Pharmacy management solutions

With pharmacy management solutions can automate and simplify the dayto-day operations of a pharmacy, and allow pharmacists the tools needed to provide professional, personalized care based on patients' needs and conditions. For example, medication management tools such as TELUS Pharma Space, which enables online prescription renewals, allow pharmacists to run a more efficient business and place care and flexibility right into patients' hands.

Claims and benefits management solutions

Claims and benefits management solutions allow insurers and employers to efficiently manage drug, dental and extended health claims in a costeffective way. These solutions also enable allied healthcare providers to submit claims while reducing transaction fees and patient out-of-pocket expenses. Additionally, workers compensation boards can accelerate efficiencies and improve the quality of service for injured workers and their healthcare providers.



Personal health records

A personal health record (PHR) is a self-controlled snapshot of your health that you can easily manage online. Through PHR, parents can also access their children's healthcare information and authorize their doctors and any other healthcare professional to view their profile.

The Citizen Health Information Portal (CHIP) pilot, powered by TELUS, integrates personal patient records with Saskatchewan's existing eHealth system — a pharmaceutical, chronic disease management and general health data repository, giving patients a real-time view of their overall health. In June 2016, more than 1,000 Saskatchewan residents gained online access to their personal health information using TELUS Health's Personal Health Record (PHR) solution, powered by Get Real Health's InstantPHR patient engagement platform.

Participants can access medical files through a personalized log-in and then add key data, such as:

- Health metrics
- Emergency contacts
- Allergy information
- Reminders to take medication.

This information can be easily accessed when travelling, or when working with physicians who are unfamiliar with a patient's health history.





Environmental stewardship

At TELUS, we strongly believe it is our responsibility to minimize the impact we have on the environment. We are caring for the planet by focusing on the responsible use of materials and resources, protecting our natural environment, and through our commitment to conservation and sustainable practices.

Energy use and climate change

Taking steps toward climate leadership

Climate change risks across our value chain undeniably require our attention. With 2016 noted as the <u>hottest year on record</u>, many organizations as well as provincial and federal governments are developing plans to adapt to the impacts of climate change along with developing methods of climate risk mitigation. Increases in emissions have been linked to more extreme weather events, which can affect our operations and potentially impact service to our customers.

We take proactive actions to address climate change and reduce our ecological footprint by:

- Measuring and reducing our overall emissions
- Minimizing spills, releases and waste
- Enhancing our Environmental Management System
- Using sustainable construction methods to build a network of data centres and office buildings.

To support our commitment to environmental responsibility, TELUS has climate change goals of absolute reductions from 2010 to 2020:

- Reducing our absolute energy consumption by 10 per cent
- Reducing our absolute GHG emissions by 25 per cent.

We are also committed to reducing energy costs and energy-related risks, exploring alternative energy solutions and supporting <u>UNGC principles</u> on the environment.

Energy use and climate change

TELUS continues to experience expansion and annual growth in data traffic on our networks, which means energy demand to power these networks is also growing. To achieve our climate change goals, we focus our efforts on energy efficiency programs as well as leveraging our internal capabilities to seek innovative ways to reduce GHG emissions and energy use.

We are also committed to transparent and meaningful disclosure with respect to our performance in addressing climate change. Accordingly, we follow the <u>Greenhouse Gas Protocol</u> methodology when reporting energy and GHG usage. The emission factors used are collected from the <u>Canadian National</u> <u>Inventory Report</u>.

We categorize our energy and GHG consumption according to the GHG Protocol guidelines:

- Scope 1: direct energy sources such as fuels that include natural gas, gasoline, diesel, propane and heating oil.
- Scope 2: indirect energy sources such as electricity.
- Scope 3: other energy sources such as air travel and employee commuting.

The energy footprint, as defined for our climate change goals, consists of direct energy and indirect energy for our domestic owned and leased real estate properties, cell tower sites, vehicle fleet, and remote generator fuel.

Energy efficiency

In 2016, we implemented over 80 energy efficiency initiatives, resulting in the elimination of 44.1 GWh of annualized energy consumption and \$1 million in avoided energy costs.



80 energy efficiency initiatives

Resulting in the elimination of 44.1 GWh of annualized energy waste and \$1 million in avoided energy costs (equivalent to 4,577 homes electricity use for one year)

23 Million kWh

EcoLogo™ certified renewable energy credits purchased in 2016 (equivalent to 18,330 tonnes of CO₂e)



Key program highlights:

- \$89 million cumulative operational costs avoided from program inception
- 4.6 GWh of improved efficiency of power and cooling systems in buildings
- 29 GWh eliminated through legacy equipment turndowns and server/ storage decommissioning
- 10.5 GWh of reduced energy consumption from real estate consolidation, energy efficiency programs and our Work Styles program implementation.

As part of our balanced approach to addressing climate change, in 2016, we purchased 23 million kWh of EcoLogoTM certified renewable energy credits in Alberta, which accounts for an offset of 18,330 tonnes of CO_2e .

Energy consumption results

In 2016, our overall energy usage decreased 3.0 per cent from 2015. This decline can be attributed to a 2.6 per cent decrease in fuel usage in our vehicle fleet as well as a decrease of 21.3 per cent of natural gas usage our retail store locations. The number of locations decreased by 9 per cent from 205 to 196. Additional energy savings were realized through legacy network and equipment efficiency upgrades or turndowns.

We continue to build better work spaces and also continue to realize efficiencies through our Work Styles program. Our real estate square foot per full-time equivalent employee ratio decreased 2.6 per cent in 2016 from 2015 primarily because we were able to exit leased space that was no longer required.

Our total energy use in 2016, was 1,281 GWh, consisting of:

- 356 GWh in Scope 1 energy use
- 892 GWh in Scope 2 energy use.

When including our International energy usage, our Scope 1 energy use was 358,191 MWh (A) and our Scope 2 energy usage was 922,473 MWh (A).

Total energy consumption in MWh

Domestic and International Chart

	2016	% change	2015
Domestic Scope 1	355,956	0.9	352,624
Domestic Scope 2	891,951	-4.5	934,422
Total Scope 1 and 2	1,247,907	-3.0	1,287,046
International Scope 1	2,235	171.1	824
International Scope 2	30,521	6.8	28,574
Total Domestic and International ¹	1,280,663	-2.7	1,316,444

1 Does not include flight emissions

Base-year comparison

When compared to our base year of 2010, through the end of 2016, we have decreased our absolute energy use by 1.7 per cent. With the challenge of powering significant wireless and wireline network growth, this decrease in energy use is a result of a strong strategy, focused program execution and the passion, innovation and dedication of our team. We will continue to seek opportunities for energy efficiency across our business to offset our business growth and related energy consumption.



Total domestic Scope 1 and 2 energy vs. base year



2016Compared to base year2010Scope 1355,956-14.5%416,099Scope 2891,9514.5%853,754Total1,247,907-1.7%1,269,853

Decrease in absolute energy use since 2010

Illustrating the intensity of our domestic Scope 1 and 2 energy usage in the context of our financial success indicators helps us understand the efficiency of our business operations.

Intensity Metrics

In 2016, our revenue grew by \$297 million and our customer connections increased by 178,000. Our energy efficiency initiatives have resulted in a MWh per customer connection reduction of 4.4 per cent, and a MWh per million dollars in revenue reduction of 5.3 per cent year over year. Additionally, our energy intensity per customer connection has been reduced by 18.1 per cent since our baseline year of 2010, and our energy intensity per million dollars in revenue has been reduced by 24.8 per cent over the same period.



YoY decrease in MWh required per million dollars in revenue

Year-over-year: change in MWh per million dollars in revenue

	Energy Intensity - Revenue			
	2016 YoY change 2015			
Annual Revenue (in millions of dollars)	12,799	2.4%	12,502	
MWh per revenue	97.500	-5.3%	102.947	



Base-year: change in MWh per million dollars in revenue

	Energy Intensity - Revenue			
	2016 YoY change 2010			
Annual Revenue (in millions of dollars)	12,799	30.7%	9,792	
MWh per revenue	97.500	-24.8%	129.683	

Year-over-year: change in MWh per customer connection

	Energy Intensity - Customer Connection			
	2016 YoY change 2015			
Net Customer Base	12,673,000	1.4%	12,495,000	
MWh per customer	0.098	-4.4%	0.103	

Base-year: change in MWh per customer connection

	Energy Intensity - Customer Connection			
	2016 YoY change 2010			
Net Customer Base	12,673,000	20.0%	10,560,000	
MWH per customer	0.098	-18.3%	0.120	

Greenhouse gas emissions results

Greenhouse gas (GHG) emissions are dependent on internal factors, such as actual energy usage and external factors, such as emission factors that are applied to TELUS' energy usage depending on the source (location) and type of energy used. Given the sources of our emissions are largely in B.C. and Alberta, the emission factors in those provinces impact our results. In 2016, the electricity emission factor for B.C. decreased by 3.3 per cent and Alberta's decreased by 3.6 per cent. In Ontario, the emission factor decreased by 47 per cent. The emission factor decreases in these three provinces will give us a lower overall emissions output per the same input of electricity.



17.5%

Decrease in absolute GHG emissions since 2010

Our Scope 1 and 2 emissions decreased by 6.8 per cent in 2016, from 2015. This was due to a:

- 2.6 per cent decrease in our fleet emissions
- 13.5 per cent reduction in emissions associated to energy usage in our retail stores
- 47 per cent decrease in the Ontario emission factor.

Our total emissions in 2016, were 341,106 tonnes CO_2e , consisting of 77,564 tonnes CO_2e in Scope 1 emissions and 263,541 tonnes CO_2e in Scope 2 emissions.

When including our Domestic and International emissions, our total Scope 1 emissions in 2016 were 77,811 (A) and our Scope 2 emissions were 283,959 (A).

For more details on our GHG emissions, please see our <u>2016 Greenhouse</u> <u>Gas Report</u>.



Total GHG emission in tonnes of carbon dioxide equivalent (CO₂e)

Domestic

	2016	2015
Scope 1	77,564	75,508
Scope 2	263,541	290,373
Total	341,105	365,881

International

	2016	2015
Scope 1	247	212
Scope 2	20,418	19,160
Total	20,665	19,372

Total Domestic and International^{1,2}

	tonnes of CO ₂ e		
	2016	% change	2015
Domestic Scope ³	77,564	2.7	75,508
Domestic Scope ⁴	263,541	-9.2	290,373
Total Domestic	341,106	-6.8	365,881
International Scope ³	247	16.5	212
International Scope ³	20,418	6.6	19,160
Total Domestic and International	361,771	-6.1	385,253

1 Emission factors from Canadian National Inventory Report.

- 2 Intergovernmental Panel on Climate Change Fourth Assessment Global Warming Potential used as per recommendation from <u>Environment Canada</u>.
- 3 Scope 1 emissions include Biodiesel, Diesel, Gasoline, Halocarbons, Light Oil, Natural Gas, Propane.
- 4 Scope 2 emissions include Electricity, Heating/Cooling Loop, Steam.

Fleet

TELUS' vehicle fleet supports the delivery of our wireless and wireline products and services and accounts for 37 per cent of our Scope 1 emissions. In 2016, our overall vehicle fleet emissions decreased by 2.6 per cent, primarily due to a 2.9 per cent reduction in the number of vehicles in our fleet and our ongoing program to replace older models with more fuel-efficient units.

Specifically, in 2016, our fleet optimization program focused on upgrading 16 per cent of our heavy-duty vehicles with newer more fuel-efficient units. Additionally, in collaboration with our suppliers, plans are in place in 2017, to source and deploy a number of hybrid and electric vehicles where maximum efficiencies can be realized.

Base-year comparison

Compared to our base year, our annual 2016 emissions are 17.5 per cent lower than in 2010. This decrease can be primarily attributed to our real estate consolidation initiatives and our Work Styles program, which have allowed us to incrementally reduce our leased property footprint each year. Additionally, the marginal decreases in the provincial emission factors have also helped to improve our annual emissions.

Total domestic Scope 1 and 2 GHG vs. base year

	2016	Compared to base year	2010
Scope 1	77,564	-12.0%	88,165
Scope 2	263,541	-19.0%	325,257
Total	341,106	-17.5%	413,423





8.9%

YoY decrease in GHG emissions per million dollars in revenue

Our emissions per customer connection have been reduced by 8.2 per cent and our tonnes of CO_2e per million dollars in revenue have been reduced by 8.9 per cent year over year. Additionally, our emissions intensity per customer connection has been reduced by 31.2 per cent since our baseline year of 2010, and our emissions intensity per million dollars in revenue has been reduced by 36.9 per cent over the same period.

Year-over-year: change in tonnes CO2e per million dollars in revenue

	Emission Intensity - Revenue		
	2016 YoY change 2015		
Annual Revenue (\$M)	12,799	2.4%	12,502
Tonnes of CO ₂ e per revenue	26.651	-8.9%	29.266

Base-year: change in tonnes CO2e per million dollars in revenue

	Emission Intensity - Revenue		
	2016 Compared 2010 to base year		2010
Annual Revenue (\$M)	12,799	30.7%	9,792
Tonnes of CO ₂ e per revenue	26.651	-36.9%	42.220

Year-over-year: change in tonnes CO2e per customer connection

	Emission Intensity - Customer Connection		
	2016 YoY change 2015		
Net Customer Base	12,673,000	1.4%	12,495,000
Tonnes of CO ₂ e per customer	0.0269	-8.2%	0.0293

Base-year: change in tonnes CO2e per customer connection

	Emission Intensity - Customer Connection				
	2016	2010			
Net Customer Base	12,673,000	20.0%	10,560,000		
Tonnes of CO2e per customer	0.0269	-31.2%	0.0391		

Scope 3 emissions

Our goal is to understand and measure the environmental impact of our business not just in our own operations, but also along our entire value chain.

For the past several years, TELUS has reported emissions linked to employees' business travel and employee commuting. In 2015, we also shared data with respect to the upstream and downstream emissions from mobile devices. As part of our ongoing analysis of the Scope 3 emissions of our mobile devices, we now believe that aspects of the data we have available are not reliable enough for us to continue to report on these emissions. We commit to continue our analysis and seek process improvement, so that we can, in the future, report Scope 3 emissions associated with the manufacture, distribution and use of mobile devices and other products we sell.

Air travel

In 2016, our employee air travel decreased by 2 per cent to 7,020 tonnes from 7,176 tonnes in 2015. When including emissions from our corporate and float planes, total air travel related emissions were 7,797 \bigstar tonnes CO₂e, representing a decrease of 9 per cent from 2015 due to decreased corporate plane use.

Employee commuting

In 2016, we made improvements in the way we collect data used to report the impacts of employee commuting. Previously, we used Statistics Canada data as a proxy for employee commuting distance and travel time. In 2016, we sent an employee commuting survey to a sample of domestic employees. 2,325 people responded, a 9 per cent sample of the domestic employee population of 25,695 with a margin of error of 2 per cent.



14,713 tonnes of CO_2e

Saved through TELUS' Work Styles program (equivalent to 2,819 passenger vehicles driven for one year)

Work Styles is a program that allows employees to work when, where and how they are most effective. This makes our employees happier and more engaged, supports our real estate consolidation efforts, and reduces our environmental footprint by reducing commuting related GHG emissions when employees work from home.

The program led to:

- \$163 million in cash flow savings net of program investments from 2010-2015
- Savings of over 100 million kilometres of commuting
- Savings of over 2 million hours of commuting
- Avoidance of 14,713 tonnes of CO₂e.

2016 TELUS employee reduced emissions and savings

Total Domestic Employees ¹	Total km saved	Total hours of commuting saved	CO ₂ e avoided (tonnes) ²
25,695	106,912,897	2,117,447	14,713

1 Based on survey sample of 2,325 employees with a margin of error of 2 per cent.

2 CO2e avoided: Canadian National Inventory report emission factors and based on average mid-size car fuel efficiency.

Employee commuting snapshot

Transportation	Employee Distribution	Total Annual TELUS GHG's tonnes per transportation type
Bike	431	-
Bus	2,133	746
Car	17,362	15,818
Car Share Service	122	35
Light Rail	2,332	135
Motorcycle	88	42
Train	1,868	1,777
Walk / Run	1,359	-
Total	25,695	18,552



Environmental leadership initiatives

Green buildings

Our goal at TELUS is to create environmentally responsible and efficient workspaces for our employees. Energy efficient workspaces reduce our operational impact and costs. Creating spaces that encourage innovation and creativity and, most importantly, nurture our collaborative culture, are integral to our green building vision. We aim for LEED Gold or better in our new buildings and are investing in upgrades to existing real estate assets across Canada. With the completion of TELUS Garden[®] in Vancouver and upcoming TELUS Sky[®] in Calgary, TELUS will own or lease more than 1.3 million square feet of LEED certified facilities.

TELUS Garden

TELUS Garden, our head office in Vancouver, B.C., officially opened its doors in 2015. It is one of the greenest buildings in Canada after receiving the highest LEED Platinum scorecard for a core and shell development, based on the 2009 standards according to the Canadian Green Building Council in early 2016.



288

Number of solar panels used at TELUS Garden

65,000 kWh

Energy generated by solar panels annually (equivalent to 5,140 gallons of gasoline not being used)

TELUS Garden features a District Energy System, operated in partnership with <u>FortisBC</u>. This system reduces the demand from conventional energy sources by 80 per cent. The system recovers waste energy from the neighbouring network building and uses it to heat and cool air and water throughout the development. TELUS Garden also has a 288-panel solar array that generates 65,000 kWh per year, enough to power the external and complementary lighting for the building.

TELUS Sky

The TELUS Sky residential condominium, retail and commercial real estate redevelopment project is well underway in Calgary. The commercial space will be built to LEED Platinum standard and the residential space to LEED Gold standard, using up to 30 per cent less energy than similar buildings and making it one of the greenest buildings on the planet. TELUS Sky will connect to the Downtown District Energy Centre, which will provide heat to our leading-edge, environmentally-friendly, 60-storey tower. TELUS Sky will be the most significant next-generation property in Calgary's history and will feature a two-level lobby as well as a mezzanine that will connect team members and tenants to the elevated walkway system that joins downtown Calgary buildings. This impressive, future-friendly real estate development is scheduled to be completed in late 2018.

TELUS' Super Internet Data Centres

TELUS' two energy efficient Internet data centres in Kamloops, B.C. and Rimouski, Quebec are over 80 per cent more energy efficient than traditional data centres and rank among the most energy efficient data centres in North America. In 2016, the Power Usage Effectiveness (PUE) rating at Kamloops was 1.115, improved from 1.125 in 2015, and the PUE at Rimouski was 1.165, more efficient than the 1.177 in 2015. By comparison, the average PUE is higher at 1.7, reported by the Uptime Institute's 2014 Data Centre Industry Survey.

Work Styles™

Work Styles continues to keep our employees engaged by providing them with flexible work options to balance their work and personal life. The ability to work in the office, at a mobile site or at home offers the following benefits:

- Increased engagement, productivity and business results
- Differentiates us in attracting and retaining top talent
- Reduces our environmental impact

- Significant cost savings for the company and employees
- Employee health, safety and wellness.

Our Pulsecheck survey includes questions focused on Work Styles. Employee feedback is provided to leaders in Work Styles' leaders toolkits and verbatim details.

In the 2016 survey:

- 92 per cent of employees felt Work Styles was a success for them
- 97 per cent of employees identified Work Styles is good for our company
- Over 92 per cent identified that Work Styles was a significant factor in their decision to remain at TELUS.

Work Styles adoption rate

Our community of leaders (Culture Champions) work with leaders to embed Work Styles even further into our culture. These Culture Champions represent the different areas of our business and use employee and leader feedback to identify what is working well and where there are opportunities to improve this program. They then engage employees and leaders through Fair Process, to identify actions to enhance the program. In 2016, we created an online environment where Culture Champions can share their best practices and ask questions of each other

%	2016	2015	2014	2013
Employees (in major centres) in a mobile	67	67	60	60
or at-home work style	07	07	00	00

Additionally, through our <u>TELUS Transformation Office</u>, we offer Work Styles solutions to organizations seeking to transform their culture through best practices that promote flexibility and work-life balance.

Resource productivity

Responsible resource use

Waste and recycling

TELUS recognizes that perfectly efficient systems have no waste. Our aim is to divert 90 per cent of our waste from landfill by 2020. To accomplish this goal, we have built a Waste Reduction Strategy that includes 56 separate projects, covering everything from coffee machines to industrial air filters. Our strategy focuses on our largest sources of waste and aims to reduce or recycle them systematically over the next four years.



Waste diverted from landfill

In 2016, we re-used and recycled 83.3 per cent of our total waste, an improvement of 2.1 per cent over 2015.

Waste diversion by source

	Reverse Logistics	Owned Properties	Leased Properties	Totals
		Ton	nes	
Recycled	10,737.91	1,545.17	1,080.51	13,363.59
Landfill	90.21	1,763.09	833.85	2,687.14
Total	10,828.12	3,308.25	1,914.36	16,050.73
Diversion %	99.2	46.7	56.4	83.3

Recycled and re-used waste

	2016	2015	2014
Percentage of Total Waste Re-Used or Recycled	83.3	81.2	78.9

Some of the key areas where we made improvements include:

Network and Logistics Teams:

- Battery recycling improved from 87 to 343 metric tonnes
- Data equipment for re-use or refurbishment went from 839 to 1,689 metric tonnes
- Scrap metal recycling increased from 3,059 to 4,389 metric tonnes

Real Estate and Administrative Teams:

- Added composting to five of our largest buildings in Metro Vancouver
- Added recycling to twenty buildings in and around Calgary
- Reduced internal paper consumption by an additional 17 per cent over 2015.



We also continued to engage a wide variety of TELUS team-members in reducing waste. All of our key business units and stakeholders are involved in reducing the amount of material sent to landfills and improving recycling and re-use. Our biggest successes in 2016, include:

- A newly formed Waste Reduction Working Group, tasked with the implementing projects in our Waste Reduction Strategy
- Continuing to rely on our Green Teams and National Sustainability Council to build engagement and behavior change toward reducing waste across TELUS
- Conducting an additional 16 waste audits across Canada to gain a more complete picture of what we are sending to landfill
- Recycling and re-using over 99 per cent of our waste from network operations.

Electronic waste

We recycled, refurbished and repurposed approximately 2.35 million kilograms of e-waste in 2016, an enormous improvement over 2015. This was primarily due to an increase in returns of wireline equipment components from technology improvement initiatives.



77%

Increase in e-waste recycled, refurbished or repurposed compared to 2015

Recycled electronic waste

	2016	2015	2014
E-waste excluding mobile devices (kg)	2,354,595	1,330,518	1,289,539
Mobile devices	35,887	37,841	56,093

TELUS supports our customers with easy and secure returns of their electronic devices. We have a <u>blog</u> designed to help customers extend the use of their devices and find out how to return them to TELUS for re-use or recycling.

TELUS also offers <u>Certified Pre-Owned Phones</u> providing affordable devices that reduce environmental impacts.

Hazardous waste

Our operations do generate small quantities of hazardous waste. We continue to look for reduction opportunities and, where possible, we use non-hazardous alternatives. In 2016, TELUS recycled:

- 5,965 litres of liquid and 3,250 kg of solid hazardous waste from our facilities including motor oil, antifreeze and fuel from fleet operations
- 343 metric tonnes of batteries from network equipment and fleet operations.

In 2017, we will continue to implement our Five-Year Waste Reduction Strategy. We plan to:

- Expand our composting systems in major urban centres, including 22 TELUS facilities in and around Calgary
- Further reduce paper consumption
- Continue to reduce the amount of packaging on products we sell to our customers
- Cut down on employees' use of disposable coffee cups

Water

Water consumption for 2016, at domestic-owned and leased properties was 666 million litres compared to 648 million litres in 2015 — a 2.7 per cent increase in water usage domestically. This increase is due to the additional reportable water data for our Quebec buildings, which was previously unavailable. Our TELUS International water consumption rose from 203 million litres in 2015 to 276 million litres in 2016, a 36 per cent increase. This increase is attributed to an improvement in scope of reportable data in the Philippine offices. Overall, we consumed 942 million litres of water in 2016, an 11 per cent increase from the 851 million litres consumed in 2015. TELUS' water sources are municipal water supplies or other water utilities as we do not withdraw from other sources.



2.7%

Increase in water consumption at TELUS domesticowned and leased properties from 2015

1.1 million litres

Water saved annually from conservation initiatives

In 2016, we have continued to benefit from the water treatment projects in our cooling systems from previous years. We also initiated the first phase of our aerator replacement program, upgrading over 500 aerators with low flow aerators that will save 1.1 million litres of domestic water usage annually.

Paper

In 2016, TELUS hosted an internal paper reduction campaign. We encouraged employees to rethink their printing behaviour. The campaign ran in October and November and contributed to the 17 per cent year- over-year reduction in paper use from 18.0 million sheets to 14.9 million sheets, saving us \$93,375 in 2016.

Paper purchased (in sheets)

	2016	2015	2014
Paper purchased (in sheets)	14,894,500 🗛	18,007,000	19,960,550

In 2016, we also aimed to reduce our customers' paper consumption by promoting Digital Billing and the Self-Serve Experience. We re-launched the TELUS My Account App, which allows customers more options to review account details and manage preferences. As a result, at 2016 year-end the TELUS Consumer e.Bill Customer base climbed to 66.7 per cent (Wireless) and 49.5 per cent (Wireline) of total subscribers, respectively. This resulted in eliminating approximately 30 million printed statements annually, including the associated stationery, production, and mailing costs.

Our goal for 2017, is to continue to reduce our internal copy paper purchases by a further 10 per cent over 2016. In addition, TELUS aims to become tree-free with paper purchases by transitioning to sugarcane paper. Sugarcane is a fast-growing renewable resource that helps reduce the need to use trees. We are aiming to be:

- 75 per cent tree-free by 2017
- 100 per cent tree-free by 2018.



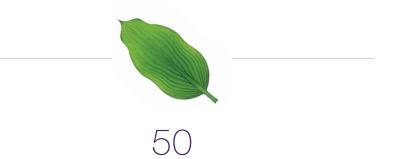
Environmental management

Following the successful certification of our environmental management system (EMS) to the ISO 14001 standard in 2015, TELUS completed the required maintenance audits to maintain certification in 2016. The globally recognized ISO 14001 standard has recently been updated (ISO14001:2015) and we will be working to adapt our current system to the new version through 2017. Maintaining this ISO standard also requires continual improvements to our environmental management processes, and TELUS is committed to identifying even more ways to better our performance.

Environmental Management System

Auditing and site assessments

To affirm our compliance with regulatory requirements, TELUS high standards, and maintain our ISO 14001 certification, we conduct regular site assessments and audits of our operations. In 2016, SGS Canada, our ISO 14001 registrar completed a maintenance audit of our operations across Canada. This was followed by an environmental management system (EMS) internal audit of Alberta operations in the fall. Going forward, TELUS will continue to have annual ISO 14001 maintenance audits, as well as our yearly internal regulatory compliance and EMS audits. The internal audit will be focused on operations in the province of Ontario and Quebec in 2017.



Number of site assessments at TELUS facilities conducted by our team of environment professionals

In addition to the formal audits, our team of environment professionals conducted over 50 site assessments at TELUS facilities. These facilities were prioritized by their potential for environmental risks. This work complements the more than 2,000 facility assessments conducted by network technicians on an annual basis at TELUS.

Training

Environmental training, provided to our employees and contractors for more than 30 years, is a key component of our EMS. Our training programs are designed to give employees the necessary information to address potential environmental risks associated with their work. Training covers topics such as spills and releases, response and reporting, and the transportation and disposal of waste. In 2016, employees completed 3,119 training courses with environmental themes. This is a decrease over the 4,240 courses completed in 2015, and is a result of our course refresher frequency, which ranges from one to three years.





3,119

Number of environmentally-themed employee training courses taken in 2016

Compliance

Environmental compliance

We are proud of our environmentally-conscious business approach and we attribute this successful performance to our environmental management processes and the effectiveness of our employee training program.

Quarterly reports are presented to the Corporate Governance Committee of <u>TELUS' Board of Directors</u> on issues resulting in written warnings or investigations by regulatory authorities. To enhance transparency, the 2016 incidents are outlined below:

In our 2014 Sustainability Report, we identified that we were notified by Alberta Environment and Parks (AEP) of their investigation into the disposal by our hydrovac contractors of slurry in Hinton, Alberta. Since then, we have worked with external environmental consultants and AEP to assess the impact and successfully complete remediation. We are in active discussions with AEP regarding the matter and their overall position with respect to the disposal of hydrovac material.

Spills and releases

We take spills and releases seriously and are continuously working to mitigate their impact. Under federal and provincial legislation, spills and releases that exceed established thresholds must be reported to the appropriate agency. In addition to reporting externally, we require that all spills (liquids) and releases (gas), regardless of the quantity, must be reported internally to our 24/7 call centre.

- Our total number of spills decreased from 265 in 2015, to 261 in 2016
- Reportable spills decreased significantly from 50 in 2015, to 30 in 2016



93.2%

YoY decrease in volume of liquids spilled

The majority -- over 92 per cent -- of our recorded spill incidents are halocarbon releases from air conditioning equipment used to cool our facilities and network equipment. Although the number of these releases increased from 234 in 2015, to 242 in 2016, the total volume of refrigerant gas released decreased from 1,938 kg in 2015 to 1,679 kg in 2016. As part of our ongoing energy reduction strategy, TELUS continues to seek out opportunities to use more efficient cooling technologies and upgrade our current systems.

The volume of liquids spilled in 2016 decreased from 3,610 litres to 244 litres due to having no large single events spills.

Reporting

In 2016, we continued to categorize our spill and release incidents based on volume. Quantity ranges for each type of material have been developed for each category (A, B and C) based on regulatory standards and associated hazards. Using this classification approach, TELUS defined Category A spills and releases as both reportable and serious, and set a target of zero for this category. In 2016, we met this target with no large spill/release occurrences.

Assured figures

Spills ¹	2016	2015	2014
Reportable	30 🗛	50	38
Not reportable ²	231 🗛	214	238
Total spills and releases	261	264	276
Approximate volume (L) ³	244 A	3,610	438
Approximate weight (kg) ⁴	1,679 🗛	1,932	2,198
Category A – reportable, serious ⁵		1	1
Category B – reportable, significant ⁵	45	66	53
Category C – not reportable, insignificant ⁵	216	197	222

1 Spill amounts reflect best estimates based on investigation results.

2 Spills and releases below regulatory thresholds do not require reporting and are termed "not reportable." The definition of "reportable" varies by jurisdiction.

- 3 Volume in litres includes liquid petroleum hydrocarbons, battery acid, glycol and other.
- 4 Weight in kilograms includes refrigerants (Chlorofluorocarbons) and fire suppression agents (Halon and FM-200).
- 5 Halocarbon and fire suppression gases: Cat A > 100 kg, Cat B > 10 kg and up to 100 kg, Cat C < or equal to 10 kg Hydrocarbon: Cat A > 1,000 L or enters water, Cat B > 100 L and up to 1,000 L, Cat C < or equal to 100 L Glycol: Cat A > 500 L, Cat B > 5 L and up to 500 L, Cat C < 5 L Acid: Cat A > 50 L, Cat B is > 5 L and up to 50 L, Cat C < or equal to 5 L.

We continue to operate a 24/7 hotline that employees and contractors use to report spill or release incidents. The hotline provides guidance for onsite management and reporting to external agencies as required. The follow-up and root-cause analysis for each incident is performed by TELUS' Environment team.

Addressing contamination

By using a risk matrix based on the <u>Canadian Council of Ministers of</u> <u>the Environment</u> approach, TELUS prioritizes the management of our contaminated sites. Our contaminated sites have resulted from historical fuel spills at remote sites that used diesel generators to power equipment. Assessment and remediation techniques can vary with the extent of the contaminated area, and by the degree and type of contamination. We focus on remediation as a means to improve our environmental footprint.

Our 2016 target was to conduct assessments on 35 sites and complete remediation work on six of those sites. A 'completed site' is one where known contamination has been remediated according to the appropriate regulatory guidelines for soil and/or groundwater. An increase in property divestitures in 2016, led us to exceed both targets, by successfully investigating 37 sites A and remediating seven sites.

Our target for 2017 is to complete remediation on five sites, based on our resource requirement planning processes.

Radio Frequency Emissions

Transparency and new research on radio frequency emissions

TELUS understands there are public concerns over potential impacts associated with low levels of non-ionizing radio frequency (RF) emissions from mobile phones and cell towers.

To assess these concerns, TELUS looks to recognized experts with peerreviewed findings and government agencies to provide guidance on potential risks. While a small number of epidemiological studies have revealed that exposure to RF fields might be linked to certain cancers, other studies have not supported this association. Furthermore, animal cancer and laboratory studies have found no evidence that RF fields are carcinogenic to laboratory rodents or cause DNA damage.



In October 2011, Health Canada updated its <u>Safety of Cell Phones and Cell</u> <u>Phone Towers</u> advisory, noting that the link between RF emission exposure and cancer risk is far from conclusive and more research is needed. The <u>International Agency for Research on Cancer</u> and Health Canada have advised mobile phone users that they can take practical measures to reduce their RF emission exposure, such as limiting the length of cell phone calls, using hands-free devices, and replacing cell phone calls with text messages. In addition, Health Canada encourages parents to take these same measures to reduce their children's RF emission exposure since children are typically more sensitive to a variety of environmental agents.

TELUS also offers information and advice with respect to radio frequency emissions on its <u>website</u>.

Innovation, Science and Economic Development Canada is responsible for establishing safe limits for signal levels of radio devices. We are confident the wireless devices we sell, as well as our cell towers and other associated devices, comply with all applicable Canadian and U.S. government safety standards.

Looking forward, we know that we can continue as an organization and industry to make a meaningful contribution to the discussion around RF emissions. In 2016, we began developing a public policy outlining new commitments for a proactive approach to RF emission management. In 2017, we will do more public consultation, seeking further input from stakeholders, with the aim of finalizing the policy.

Impacts of wireless network expansion

Cell towers are the backbone of our wireless network, allowing for the connectivity of TELUS devices that 8.6 million customers rely on. Due to limitations on the range of some towers and the increasing demand for bandwidth resulting from increased smartphone adoption, we need to continuously improve our network and evaluate new tower locations. In every instance, we seek to partner with other network operators to minimize the number of new tower locations so we can reduce the environmental and aesthetic impacts these towers may have on our customers and communities.

Exclusive jurisdiction over the placement of cellular towers is set out under Innovation, Science and Economic Development Canada's (formerly Industry Canada's) requirements in circular <u>CPC-2-0-03</u> for telecommunication carriers. If a new tower is required, we follow the <u>Default Public Consultation</u> <u>Process</u> when reviewing locations unless the land use authority has their own recommended protocol. As part of the consultation process, we are required to directly consult with all residents within a distance equal to three times the height of the proposed tower. We are also required to consult with the public through a notification process and if there are concerns about a tower location we work to address these concerns and reach a mutually agreeable solution.

In 2016, TELUS continued its antenna and systems research collaborations with the University of Toronto and University of Alberta. This work included reducing human exposure and potential associated health effects as a goal in concert with achieving reductions in energy use and improvements in spectral efficiency. These collaborations support a network build strategy that favours low power microcells over large, high power towers, an approach that also reduces handset transmit power and associated user exposure, infrastructure visibility, and community concerns over tower siting. We have been employing this strategy for our wireless expansion in recent years.

See our <u>disclosure</u> regarding mobile device and cell site emissions, which includes a link to the Specific Absorption Rate ratings for cell phones on the Innovation, Science and Economic Development Canada website. See also section 10.10 of the MD&A in our Annual Report regarding concerns relating to radio frequency emissions.

Protecting nature

Caring for our natural environment

Species at Risk

Sometimes the simplest actions can have the greatest impacts. Through TELUS Days of Giving, our team members and their families and friends teamed up with <u>Nature Conservatory of Canada</u> (NCC) in support of the greater sage-grouse — a critically endangered grassland species. To reduce the number of sage-grouse collisions with fences on the rural landscape, we helped NCC improve fence visibility by creating reflective clips. Research shows the clips help improve fence visibility and reduce sage-grouse collisions by up to 70 to 80 per cent when deployed in areas near their dancing grounds, also called leks.

Thirty-three TELUS Days of Giving participants created 3,318 of these vinyl fence clips -- enough to improve 2.65 km of fence line for the endangered sage-grouse. When combined with the total made at additional volunteer events, TELUS helped NCC achieve its ultimate goal of creating 8,000 clips, which improved the fence around an entire section of land (640 acres/260 hectares).

To learn more about this endangered species, visit NCC sage-grouse.



In addition to the time our team committed to help endangered species, TELUS also provided much needed funds to support at-risk animals and native pollinators through our 2016 Go Wild projects with <u>World Wildlife Fund</u> (WWF) Canada, including:

- Lillooet, B.C.: Environment Program, St'át'imc Government Services -- *Citizen science project*. Citizen scientists map out human recreational spots to improve planning to help reduce conflicts with threatened grizzly bears (status in B.C.) in the Lillooet community.
- Regina, Saskatchewan: Wascana Centre Authority -- Wascana Centre's Pollinator Paradise. Creation of a native prairie pollinator garden and educational materials, welcoming public and school nature walks.
- Capreol, Ontario: Wahnapitae First Nation -- Build-A-Bat-House program. With the decline in bat populations on the reserve, community awareness and action is created for three endangered bat species (Little Brown Myotis, Northern Myotis, and Tri-colored Bat) through build-a-bat house day and education to help in community reporting for a longitudinal study.
- Grimsby, Ontario: Grimsby Public Library/Grimsby Public Art Gallery

 Back to Nature. A family-friendly program helps community
 members preserve and enjoy the nature around them with
 discussions of green roofs to pollinator gardens to nature-based
 photography.
- Hamilton, Ontario: Mohawk College -- *Rooftop Pollinator Garden*. A dedicated pollinator-friendly, rooftop garden will support a healthy bee population, encourage community food production and create teaching and learning opportunities for students.
- Parry Sound, Ontario: Bob Rumball Camp of the Deaf -- Butterflies at Camp Workbee! Deaf and hard-of-hearing children will learn about the importance of pollinators and contribute to making their camp a special haven for these creatures by planting flowers and milkweed along marshy areas and gardens.
- Peterborough, Ontario: Kawartha Turtle Trauma Centre -- <u>Returning</u> <u>baby turtles to the wild program</u>. Treating over 800 turtles each year,

Ontario Turtle Conservation Centre celebrated and educated the public while inviting them to join in the release of snapping turtles (Special Concern) at two locations.

- Sault Ste. Marie, Ontario: Destination North Discovery Group --Northern Community Pollinator Project. An interactive pollinator garden and guided tours will help make Sault Ste. Marie a pollinator haven while encouraging patrons to create their own patches at home.
- Tillsonburg, Ontario: Stewardship Oxford -- *Butterfly Habitat Rehabilitation Project*. Within the Carolinian Zone, home to one-third of Canada's species at risk, this project established five monarch (Endangered) friendly habitats in public areas, schools and homes.
- Toronto, Ontario: Shoresh Jewish Environmental Program -- Bela Farm Bee Sanctuary. Across 20 acres, this Toronto bee sanctuary will help restore Ontario's native pollinator populations with the public planting of over two million native plants over a three-year period.
- Crapaud, P.E.I.: South Shore Watershed Association -- Recreational Fisheries Enhancement Project. Enhancing a river wildlife habitat by installing floating fish covers, nest boxes for kestrels and swallow, creating a pollinator garden for monarch butterflies and planting native trees and shrubs. Once completed, this area will serve as a community meeting place and field trip destination for the local elementary school.
- Stratford, P.E.I.: Stratford Area Watershed Improvement Group --Building Better Backyards for Bees and Butterflies. This educational campaign will have residents construct habitat for bees and butterflies in their backyards and other natural spaces. Each event participant receives a seed package containing a plant species known for attracting these important pollinators.



Water and land conservation

We are promoting a healthier environment, where we inspire and celebrate support for animals and their habitats, to ensure sustainable communities for future generations.

By the numbers:

- Over \$2 million contributed to fund environmental work in 2016
- Since 2000, TELUS our team members and retirees have contributed over \$15 million to fund environmental work
- In 2016, through our Team TELUS Charitable Giving program, TELUS, our team members and retirees contributed over \$400,000 to charitable organizations which support environmental causes.
- \$679,215 in funding from TELUS Community Boards -- 12 per cent of total funding supports environmental initiatives
- 245,930 phones and other electronic devices recycled or upcycled by TELUS customers
- \$165,094 contributed in the 2016-17 season led to planting and nurturing of 8,475 trees across Canada, bringing our total to 535,940 trees planted and maintained through our Tree Canada partnership.

Inspired by nature: creating a healthier future with Go Wild



In 2012, TELUS committed \$1 million over four years to help WWF Canada mobilize volunteers in grassroots rural and urban environmental projects. As a result, the Go Wild Community Grants program was launched, providing micro grants ranging from \$1,000 to \$10,000 to help local groups protect, revitalize and enhance natural habitats. The program is designed to encourage Canadians to take an active role in developing creative solutions to the conservation challenges in our communities. From citizen-science whale research in B.C., to mallard duck nesting habitat construction in Saskatchewan, Canadians have been using <u>Go</u> <u>Wild Community Grants</u> to revitalize habitats across the country.

This summer, the program helped the <u>Ontario Turtle Conservation Centre</u> protect and release at-risk baby turtles into their natural wetland habitat. When turtle eggs were discovered on a bridge set to be demolished, a local team was able to collect, incubate and hatch the eggs through the support of a Go Wild Community Grant. In Ontario, seven of eight turtle species are considered at risk, and less than one per cent of eggs make it to adulthood, so every turtle hatchling saved by the <u>Ontario Turtle Conservation Centre</u> is crucial to preventing turtles from disappearing from our ecosystems.

A public event celebrated the turtles' release, offering a rare opportunity to see an at-risk species returned to the wild, and helped raise awareness about the threats facing the turtle population.

Take a moment to watch this inspiring story.





Advancing education

At TELUS, we believe it is important to advance the educational opportunities for our future leaders. Our technology transforms the way we deliver education by connecting students with people and places they would otherwise not have access to.

Online safety

Helping Canadians stay safe online

TELUS WISE

Staying safe online is not easy -- especially for youth. Through our partnership with WE Charity and our TELUS WISE (Wise Internet and Smartphone Education) program, we are helping educate today's youth about staying safe online.

Offered free-of-charge, TELUS WISE engages Canadians of all ages in a discussion about Internet and smartphone safety. This program is designed to help keep ourselves, our families and our communities safer from cyberbullying and online criminal activity such as financial fraud. We engage in our communities through the following programs:

 <u>TELUS WISE</u> is a program for adults, including parents and caregivers, which includes a virtual community providing access to a wealth of online safety resources. Also, in-person and virtual sessions are hosted by our TELUS WISE Ambassadors upon request.



- <u>TELUS WISE footprint</u> is an online digital citizenship program for 7 to 14 year-olds. We host sessions for schools and sports groups, helping kids learn how to become good digital citizens and keep their digital footprint clean. Through our TELUS WISE footprint comic strip contests kids can earn funding to put toward their school's digital literacy programs.
- <u>TELUS WISE in control</u> engages high school and young adults in an important discussion about protecting and positively growing their online reputation, protecting themselves from cyberbullying, identity theft and more. This program includes in-person sessions at high schools and post-secondary institutes across Canada.
- <u>TELUS WISE seniors</u> engages Canadian seniors in a discussion about getting the most out of participating in our growing digital society safely. In-person sessions are hosted for seniors groups upon request by our TELUS WISE Ambassadors.
- <u>TELUS Learning Centres</u> learning specialists in more than 500 of our TELUS locations, provide personalized, one-on-one guidance to customers on Internet and smartphone safety and security as a part of our Learning Centre program for Canadians of all ages.

Collaboration with our partners has delivered important educational materials such as:

- TELUS WISE Helping our kids use their smartphone safely guide
- <u>TELUS WISE Helping our kids navigate their wired world</u>
- TELUS WISE Privacy matters guide
- <u>TELUS WISE Distracted driving guide</u>
- TELUS WISE Helping Canadian adults navigate their wired world
- TELUS WISE Seniors guide
- <u>TELUS WISE tip sheets</u> produced in English, French, Chinese, Punjabi and Spanish
- TELUS WISE footprint comic/activity books.

1.7 million

Number of Canadians reached with the TELUS WISE Program since 2013

Since its inception in 2013, more than 1.7 million Canadians have benefitted from TELUS WISE programming and resources, including 850,000 in 2016 alone. After attending one of our TELUS WISE workshops, 95 per cent of participants said they were very likely to change their online behaviour.

TELUS WISE would not be possible without ongoing collaboration with <u>our</u> <u>partners</u>. We are honored to have the Canadian Association of Chiefs of Police (CACP) <u>endorse this program</u>.

To stay connected to 2017 plans and events, please visit our website.

Empowering youth through education

TELUS has been a proud partner of WE Charity (previously Free The Children) since 2007 and co-title sponsor of its WE Day events since 2012. WE Day is the largest series of youth education and empowerment events in North America. Its purpose is to inspire socially-minded teens and pre-teens to learn about social issues and take action in their communities. In 2016, more than 155,000 attended nine WE Day events across Canada.



Through this year's WE Day, we tackled one of the most prevalent issues facing Canadian youth today – cyberbullying. Collaborating with TELUS WISE, we offered youth and parents tools and resources to combat online negativity using the <u>platform</u> #RiseAbove. This platform resulted in 27,780 posts on social media, further raising awareness of this important issue.



27,780

Total social media posts generated to help youth and parents combat cyberbullying during TELUS sponsored WE Day events

Lynelle Cantwell, a Canadian teen who experienced cyberbullying took the WE Day stage in 2016, to share her powerful and motivational <u>story</u>.

Since 2007, TELUS has provided more then \$17 million in support to WE Day.

Inspiring Youth

TELUS exclusively sponsors WE's We Give Where We Live Speaking Tour. The tour, which reached 86 schools across Canada in 2016, educates, encourages and empowers young Canadians to become ambassadors of positive change throughout the school year. Similar to WE Day programming, this tour speaks to cyberbullying with a strong integration of TELUS WISE messaging.

In the 2016/2017 school year, we expect 34,000 participants in We Give Where We Live speaking tour.

Enabling future leaders

Providing pathways to education

We are empowering youth through greater access to technology and community programs with a focus on inspiring social change, supporting the development of personal and professional skills, and by facilitating online accessibility, literacy, safety and security.

Connecting B.C. Program

The Government of B.C awarded TELUS a 10-year telecommunications services contract in 2011. This contract provides telecommunications and strategic services to government and its broader public sector partners.

Specific highlights of the Connecting B.C. Program include:

- Upgrading approximately 450 schools to high-speed fibre optic cables -- 375 schools are already benefiting from faster speeds
- Delivering more than 1,700 km of additional cellular coverage along primary and secondary highway segments throughout B.C. -- 1,721 km of new coverage now in place
- Increasing Internet bandwidth connections for designated rural and remote communities -- 90 bandwidth upgrades completed in 57 communities.



TELUS Community Ambassadors arm thousands of kids with back-to-school basics



For many families across Canada, going back to school in September can bring a mix of emotions. While parents look forward to watching their children flourish and grow in the classroom, for many, the rising cost of back-to-school shopping is simply not within their means. Every year, our TELUS Community Ambassadors work with local organizations to alleviate some of that burden through our

Kits for Kids program.

This back-to-school season, our Ambassadors rolled up their sleeves to assemble and distribute over 12,000 backpacks filled with essential school supplies to families in need, enabling children to step into the classroom with confidence and an equal opportunity to succeed. Each kit is a backpack filled with a pencil case, colouring pencils, HB pencils, blue pens, white erasers, a flexible ruler, exercise books and loose-leaf binders.

Kits for Kids: by the numbers

- 12,000 backpacks assembled and distributed in 2016; 2,000 by parliamentarians
- 108,000 Kits for Kids distributed since 2006
- 336,000 pens and pencils packed
- 24,000 erasers packed
- 96,000 exercise books packed.

TELUS Community Ambassadors experience giving back internationally

In 2016, we initiated a pilot program to allow TELUS Community Ambassadors to participate in our TELUS Days of Giving in Guatemala. Ten all-star community champions from Community Ambassador clubs across Canada were selected to travel to Guatemala to participate in a life-changing volunteer experience building a kindergarten in Los Eucaliptos. TELUS subsidized the trip in recognition of the advocates' exemplary efforts to give where they live.

This year's Guatemalan project involved 2,000 team members, joined by:

- Canadian Ambassador to Guatemala, Deborah Chatsis
- Guatemala City Mayor, Alvaro Arzú
- Guatemala Deputy Mayor, Colonel Fernando Reyes
- President and CEO of TELUS International, Jeffrey Puritt, and other TELUS International senior leaders.

With tireless hours spent building, painting and landscaping, our team members' efforts resulted in an empty lot being transformed into three building structures, a garden and a playground, all surrounded by a beautifully-painted mural wall. During the school day, 200 children aged 1.5 to five years will now be able to learn and grow safely. In the afternoon, the kindergarten will become an art and music workshop to benefit another 200 children, aged six to 10.

The trip included a tour of the Safe Passage school that was built by TELUS team members in 2015. Through this project, the site of a garbage dump was transformed into a school, a playground and a community centre where 800 students are now enrolled. Watch this <u>short video</u> to see first-hand how the team improved lives at the 2015 TELUS Days of Giving event in Guatemala.









"Whether it was painting, building or landscaping, we all worked together and combined our different talents and skills to make a huge impact. Within a few hours, hundreds of volunteers were working in perfect harmony and building classrooms, meeting rooms and playgrounds from the ground up!"

- Jeannot Martel, team member and TELUS Community Ambassador



Community investment

Every day, our team members across the country are improving the lives of Canadians and the communities in which they live. Giving back is in our DNA – it is core to our values and at the heart of our culture.

We give where we live

Championing social change to build a more compassionate world

We give where we live is the heart of our philanthropic philosophy and is our rallying cry to to give back to the communities where we live, work and serve. Every day, our team members are empowered to make a difference in the lives of others with their hearts and hands.

Advancing our social mission

Our social mission is grounded in our brand and business, meaning it is embedded across TELUS and is not just the mandate of our Community Investment team. This is our fundamental to belief that TELUS' core business allows us the opportunity to create shared value in the community and is an integral component of how we deliver our social mission. We are on a journey to further align our strategy and better integrate reporting our output and most importantly, impact.

With our streamlined focus on the key pillars of health, education and environment since 2015, we have:

Empowered better health knowledge, management and outcomes by funding programs that:

- Support people living with disability and managing chronic disease
- Reinforce prevention through active, healthy living
- Champion basic community welfare.

Our health programs align with the following UN Sustainable Development Goals:



Zero hunger aims to provide access to safe, nutritious and sufficient food for all people -- especially for the poor or those living in vulnerable situations.



Good health and well-being, which targets reducing premature mortality from non-communicable diseases by one-third through prevention and treatment.

Empowered youth and families with greater access to technology and community programs including:

- Youth programs for personal and skills-based development and social cohesion
- Facilitating online accessibility, literacy, safety and security through TELUS WISE
- Empowering youth to drive social change.

These programs align with the UN Sustainable Development Goals:



Quality education is focused on providing inclusive and equitable quality education and promoting lifelong learning opportunities for all. Enabling communities to be more sustainable by:

- Protecting our natural environment through conservation and sustainable practices
- Inspiring healthy living through community beautification
- Preserving wildlife and animal habitats.

Our educational programs align with the UN Sustainable Development Goals:



Sustainable cities and communities is focused on inclusive, safe, resilient and sustainable places to live, work and play.



Reducing waste generation through prevention, reduction, recycling and reuse.

14 LIFE BELOW WATER

Life below water looks at sustainably managing and protecting marine and coastal ecosystems to avoid adverse impacts. This includes taking action for restoration that creates healthy and productive oceans.

Impact and Measurement

As we drive toward positive social impact and creating shared value we need to consider how to consolidate and communicate the true impact that our community-focused programs have. One of TELUS' primary guiding principles is to support grassroots giving, which allows our team members, Community Boards and cause marketing specialists to focus on local communities and personal passions. This unique and innovative approach to giving affords us the opportunity to give back to the communities most in need.

In 2016, we completed a pilot that focused on the social impact we generate through our Community Board grants and program investments. The pilot surveyed 45 non-profit organizations across Canada and determined that these organizations now have the ability to leverage TELUS' funding to gain the additional resources required to continue their community programs.



Our total investment in grants from these respondents was \$584,426. This investment led to the following outcomes:

Health	Education	Environment
23,000 Canadians	33,000 youth and young	8,000 young
participated in programs	adults received access	Canadians learned
that support disease	to educational or arts	about protecting,
prevention through	programs for skills	conservation and
healthy living	development	sustainable practices
20,000 citizens who don't have a home received shelter and support	37,000 youth and young adults were empowered to drive social change	11,000 youth were inspired to achieve healthy living through community beautification
24,000 youth received mentoring, outreach and coaching to improve their lives	55,000 benefited from increased online accessibility to training and development	6,000 people got involved in programs focused on preserving wildlife and animal habitats

In 2017, we will expand our pilot to a broader group of programs and leverage our UN Sustainable Goals to define our focus and establish up-front expectations on the measures we want to report on.

Highlights:

- In 2016 we:
 - contributed \$42.35 million in support of over 4,200 charities and community organizations
 - recorded more than 870,000 volunteer hours through our employee and retiree giving programs
 - engaged more than 28,000 employees, retirees, family and friends globally through our annual <u>TELUS Days of Giving</u>.

- Since their inception in 2005, our Community Boards have contributed \$60.7 million and supported 5,600 projects:
 - In 2016, our 11 TELUS Community Boards across Canada contributed \$5.54 million to local charities and supported more than 550 projects
 - Our TELUS International Community Boards contributed U.S.
 \$400,000 in support of 50 projects in 2016 alone.
- Since 2013, about 1.7 million Canadians benefited from TELUS WISE programming and resources
- Since 2000, TELUS, our team members and retirees have contributed over \$482 million to charitable and community organizations and volunteered more than onemillion days of service to local communities since 2000.



Understanding the broad impact of our community investment program is critical to our program's success. We work with the London Benchmarking Group and use their methodology to measure our impact. Our community investments can be categorized as follows:

- Philanthropic investment: one-time or intermittent donations in response to charity appeals or in support of employee charitable activities (see section on humanitarian relief)
- Social investment: long-term strategic involvement in community partnerships that address a specific range of important social issues (see strategic partnerships section)
- Commercial initiatives: activities in the community that directly support a business objective or promote or protect TELUS' commercial interest (see section on cause marketing)
- Employee giving: contributions to a community project that can be directly linked to our involvement in the project (see Employee and Retiree Programs section).



\$ millions	2016	2015	2014	2013	2012
Philanthropic investment	6.92	7.50	6.36	8.92	6.80
Social investment	15.55	19.07	18.92	17.06	18.97
Commercial initiatives	17.34	14.89	16.61	17.02	14.78
Value of employee giving ¹	2.54	2.52	2.47	3.23	3.43
Total	42.35 🗛	43.98	44.36	46.23	43.98

1 TELUS-matched dollars are included in the philanthropic investment category.

Imagine Canada

We have been designated an <u>Imagine Canada</u> Caring Company since 1995. As a company with this designation, TELUS gives more than one per cent of our pre-tax profits to charitable organizations each year. In 2016, we surpassed this goal and contributed 2.38 per cent of our pre-tax profits. For 2017, we plan to maintain our status as a Caring Company.

A Look Ahead

Our community investment strategic imperatives for 2017:

- 1. Strategically integrate, communicate and market our social purpose and mission at TELUS
- Communicate and engage with our customers and team members to showcase TELUS' social impact and create a social movement for all Canadians to be engaged
- Strategically invest in social projects and partnerships that lead to impacts in health, education and environment and drive greater business and community value
- Create shared value and pursue financial success in a way that also benefits society by enhancing our products and services to generate positive social impact.

As part of our strategy for 2017, we are enhancing our programs to support year-round giving and volunteering. This will allow us to expand our impact, better meet community needs, and make certain our TELUS family can support their passions whenever and wherever they want.

Community Boards

Putting community funding in the hands of local leaders

TELUS Community Boards

<u>TELUS Community Boards</u> are an innovative funding model that put philanthropic decision-making in the hands of local leaders who know their communities best. The focus of the Boards is to provide grants to grassroots charities that support local youth. Preference is given to projects that also demonstrate tangible technological or social innovation.

The 11 TELUS Community Boards across Canada contributed \$5.35 million to local charities supporting 486 projects in 2016. Additionally, our four international Community Boards -- in Europe, Guatemala, El Salvador and the Philippines -- contributed U.S.\$400,000 to 52 charitable projects in their communities.

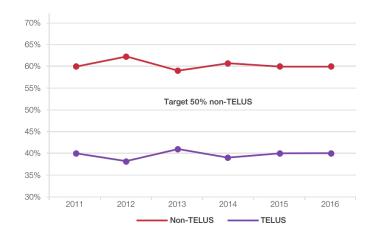
In support of good governance, our objective is to have more than 50 per cent of Community Board membership consist of non-TELUS representatives who bring the expertise of the community into decision-making. At the end of 2016:

- 60 per cent of Community Board members were non-TELUS, a figure we have consistently maintained over the past five years
- The gender makeup of Boards was 55 per cent male and 45 per cent female, representing a six per cent increase in female membership since 2011.

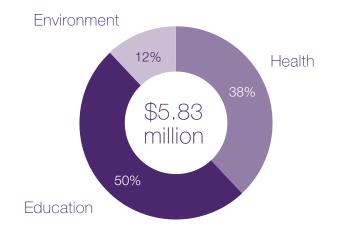


Community Board membership





Community Board funding by focus areas in 2016



In 2017, we plan to:

- Continue to lead with best-in-class board governance and succession planning
- Launch the TELUS Manitoba Community Board
- Launch the TELUS International Romania Community Board.



OrKidstra

Meet Gareth, a young man who spent his early childhood in a refugee camp on the border of Burma and Thailand before his family moved to Ottawa. Just months after arriving in Canada, while still learning English, Gareth joined *OrKidstra* --- a decision that would change the course of his life.

OrKidstra gives children the opportunity to experience the joys and challenges of playing and singing together. It helps Ottawa youth, ages 5 to 18, from under-served areas gain critical social skills like respect, teamwork and commitment that are all a part of making music. These skills benefit the individual as much as the community.

Gareth's *OrKidstra* experience has come full circle. Not only is he a graduate of the program and pursuing his career goals, but he's now a mentor, inspiring

kids just like himself. It is stories like Gareth's that inspire TELUS to give where we live and support programs like *OrKidstra*.

"My time at *OrKidstra* has made me feel nothing in life is impossible. Through teaching young musicians, I have learned to be patient, to be charismatic and always to be positive."

- Gareth

TELUS has given almost \$100,000 in community grants to *OrKidstra* since 2010. This support has been instrumental in developing the program and reaching more children and youth. Today, the program has over 525 students from 42 different language and cultural backgrounds.

To learn more about OrKidstra visit OrKidstra.ca





TELUS Days of Giving

Coming together to make a difference

In Canada and internationally, our team members come together during our annual TELUS Days of Giving (TDOG) to volunteer and make a difference.

In 2016 in Canada, we celebrated our eleventh annual TELUS Days of Giving from May 14 to June 12, bringing together more than 20,000 volunteers at over 1,500 activities across Canada. Together, we made a big difference in the following ways:

- 143,820 purple ribbons tied to support Pancreatic Cancer Canada's awareness campaign
- 131,818 pounds of food sorted at food banks
- 12,000 children received new backpacks and supplies
- 6,950 trees and plants planted to parks and gardens
- 6,642 meals served to those in need
- 3,302 electronic devices recycled
- 816 units of blood donated to patients across Canada.

To learn more, watch here.



Parliament Hill joins TELUS to lend a hand

In May 2016, during our annual TELUS Days of Giving, hundreds of parliamentarians (including Members of Parliaments and Senators) joined TELUS team members. They gathered in Ottawa, on Parliament Hill, and in Edmonton, at the Alberta Legislature, to assemble Kits for Kids in time for September's



back-to-school rush. Their contributions helped more than 2,000 kids across the country.

Working in harmony to make a lasting difference: the TELUS community garden projects

During the 11th annual TELUS Days of Giving this year, over 400 TELUS team members, retirees, family and friends came together to lend a hand in the transformation of a newly donated, one-acre plot of land at the Rexdale Community Food Garden in Toronto. Together, TELUS volunteers constructed



and planted gardens, erected raised beds for a greenhouse, built paths and benches and developed a children's garden space. The result was a permanent greenhouse and surrounding garden that transformed the plot of land into an active edible landscape, doubling the output of the Rexdale Community Food Garden and allowing the organization to deliver a weekly harvest to the local non-profits that depend on them.

In only six short months following the greenhouse installation, the Rexdale Community Food Garden:

- Harvested over 1,500 pounds of food (the equivalent of more than 5,000 tomatoes)
- Provided fresh, organic produce to four local community groups and one food bank to support low-income individuals and families in the Greater Toronto Area
- Engaged more than 500 volunteers, who together have contributed over 1,500 volunteer hours at the garden.

This volunteer-driven initiative helped launch a sustainable community project that will benefit local communities for years to come, and which allows the Rexdale Community Food Garden to continue the impactful work of enriching the lives of those who need our help the most.

More than 200 TELUS team members in the B.C. Lower Mainland came together to help build a hoophouse for TELUS' community partner Edible Garden. Their collective efforts led to:

- 510 seedlings planted, including Swiss chard, kale, lettuce, cauliflower, purple sprouting broccoli, brussels sprouts, cabbage and spring onions. The produce grown here is made available to those in need through local Food Banks, the Harvest Project, and Sage House
- 150 packages of seeds prepared and distributed to nearby schools for children's gardens
- 20 trellises built, and supplies provided for an additional 14 to be assembled in nearby school gardens
- Record-number of winter crops grown
- \$63,400 donated to Loutet Farms to fund the construction of a future TELUS Greenhouse.

Learn more about the 2016 TELUS Days of Giving:



TELUS International - TDOG Guatemala

Since our first TELUS Days of Giving in Central America in 2009, our team members have built 54 classrooms in Guatemala and in El Salvador they have refurbished four schools and built 43 homes for underprivileged families. In 2016, we carried on this impactful legacy in Guatemala.



54 classrooms

Number of classrooms built by TELUS volunteers in Guatemala and in El Salvador since 2009



By the numbers:

- 2,000 volunteers at Guatemala TDOG in 2016
- 10 Community Ambassadors from Canada
- 400 Guatemalan children between one and 10-years old to benefit from this year's project
- Built a 900 square metre building, including:
 - Eight classrooms
 - One kitchen
 - One laundry room
 - One living area
 - Four boys' bathrooms
 - Four girls' bathrooms
 - Three individual bathrooms
 - Three storage rooms
 - One gatehouse
 - 1,200 square metre perimeter wall.

Notably, in 2016, 800 students enrolled at new Safe Passage school built at the 2015 TDOG in Guatemala.

Additionally, there was a total of 11 TELUS International Days of Giving events held around the world where more than 8,250 TELUS International team members volunteered to make the world a better place

A look ahead

In 2017, we plan to:

- Expand our innovative Community Board approach to Manitoba and Romania
- Further develop and understand social impact measurement and strategies
- Celebrate our 10-year anniversary as title sponsor of the TELUS Walk to Cure Diabetes
- Continue our partnership with WE Charity and Hockey Canada

• Further develop important relationships with the Trans Canada Trail Foundation, the Nature Conservancy of Canada and Habitat for Humanity.

Humanitarian relief

Humanitarian relief: rebuilding Fort McMurray

On May 3, 2016, we learned of the shocking news that wildfires were spreading across Fort McMurray. Our hearts went out to the more than 90,000 residents of the northeastern Alberta community, who were forced to flee the Regional Municipality of Wood Buffalo, many



of whom escaped with little more than the clothes on their backs. During the subsequent state of emergency, over 2,400 homes and businesses across 1.5 million acres were destroyed by flames that continued to ravage the tinder-dry forests for over two months. Though now considered the costliest disaster in Canadian history, the estimated damages of \$3.6 billion can never begin to reflect any true measure of loss for the evacuees of Fort McMurray.

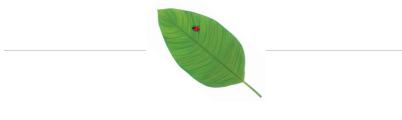
The severity of the devastation has taken its toll. While the majority of residents have returned home, they, along with many businesses, continue to experience setbacks that are further exacerbated by the ongoing economic challenges in Alberta. However, the movement to



rebuild Fort McMurray began even as the fires spread. The tireless efforts of our team ensured that the city's residents were able to stay connected to their loved ones and the many demonstrations of bravery cannot be overstated.

In one instance, two team members travelled down a fire-threatened road during a blackout to refuel the backup generator of a primary radio tower that provides air traffic control capability for the entire region — a task they completed just minutes before it was due to run out of power. There is truly no better exemplification of our culture in action than our team's willingness and enthusiasm to support the residents and the community of Fort McMurray.

Here is a glimpse of our team's support efforts in Fort McMurray:



1,200 kits

Number of emergency comfort kits created by TELUS Ambassadors for Fort McMurray evacuation centres

Supporting our neighbours

- TELUS Ambassadors packed 1,200 emergency comfort kits for evacuation centres
- Distributed TELUS critters to evacuation centres for children
- Volunteered at Red Cross Call centres, responding to inquiries from evacuees and loved ones
- Provided a drop-in centre with counselling services for evacuees at TELUS House Edmonton
- Waived data overage charges for affected customers
- Set up mobile charging stations in evacuation centres.

Giving with our hearts and hands

- Donated \$100,000 to Red Cross to match team member online and customer text2donate contributions
- Arranged for point-of-sale donations to Red Cross in TELUS stores
 nationally
- Donated \$155,000 through TELUS Community Boards to local Fort McMurray charities.

Supporting emergency services

- Donated 1,400 mobile devices with text and data service to emergency personnel
- Deployed six "cellular on wheels" stations, allowing for continued cellular service
- Replaced 7,000 metres of fibre and copper cable in the region.



\$1.2 million

Donations given by TELUS employees and customers to help local families affected by Fort McMurray forest fires

Strategic partnerships

Creating sustainable communities

Our Priorities

Our sponsorship focus is on establishing strategic business partnerships that align with our corporate values, our business priorities and are an integral component of our corporate social responsibility strategy. We select sponsorships that enable us to connect with our customers in meaningful ways and fulfill our commitment to help create sustainable communities where we live and work.

All sponsorships are assessed against the following five TELUS priorities:

- How will this sponsorship help drive tangible business return on investment for TELUS?
- How can this sponsorship create authentic, integrated consumer experiences by showcasing our products, services and technologies?
- How will this sponsorship elevate our future-friendly brand promise and deliver a positive brand experience?
- What opportunities exist to integrate our community investment areas of focus, including health, education and the environment?
- How can we connect this sponsorship to our employees in a meaningful way?

Engaging with customers through partnership and social purpose marketing

We are inspired to give where we live because our team gives hundreds of thousands of hours of their time every year. Through acts of giving -- big and small -- we are committed to driving positive social outcomes in the areas of health, education and the environment by harnessing the power of technology. We engage Canadians through national marketing campaigns that are aligned

to our community investment pillars. Our philosophy is also supported by regional and local cause marketing programs, and through our social media platforms that share the many compelling stories of how we care for our communities, examples of which follow.

#JDRF: making strides towards a cure

2016 marked TELUS' ninth year as title sponsor of JDRF's signature national fundraising event, the <u>TELUS</u> <u>Walk to Cure Diabetes</u>. In 2016 alone, over 4,500 members of the TELUS family walked in approximately 50 communities from coast to coast, raising more than \$380,000.



Supporting this activity helps us fund critical Type 1 diabetes research that will positively impact the lives of thousands of Canadians and connect with our customers in a unique way.

When Jason Brathwaite, a member of the TELUS team, received a call from Marie, a TELUS customer who was experiencing an issue with her Personal Video Recorder, he found out during the course of their conversation that her 13-year-old grandson, Shawn, had been diagnosed with Type 1 diabetes and had recently been staying in the hospital as he adjusted to life with his illness.

Jason shared with Marie TELUS' longstanding commitment to the Juvenile Diabetes Research Foundation. Before long, Jason was able to identify the hardware failure and secure a technician for a home visit. As a token of goodwill, he offered her three complimentary Video on Demand selections she could enjoy with her family. However, it was Jason's next offer that truly touched Marie; Jason informed her that, as he did not have anyone in his life who had been touched by Juvenile Diabetes, he would be honoured to walk for Marie's grandson in the upcoming TELUS Walk. In a gesture that Marie will never forget, Jason went on to walk the following year with "Shawn" written on his TELUS t-shirt.

Jason's willingness to reach out in such a personal way is a testament to the positive impact TELUS team members can have on the lives of our customers. Jason's story certainly reminds us of the importance of giving back to the communities in which we live, work and serve.

#AllConnected: Connecting Canada to our game

In a nation celebrated for its differences, our passion for the game of hockey is something that unites many of us. The World Juniors have become an annual holiday tradition, with over 22 million Canadians gathering in their living rooms to watch the game.

Now, more than ever, technology is at the heart of that hockey experience and is a critical component of connecting fans to the sport they love. As a premier partner of Hockey Canada since 2006, TELUS once again launched an integrated marketing campaign to help connect Canadians to our game on our nation's largest network during the 2016-17 World Juniors Championship. Our 2016 campaign highlights included:

- Over 12 million social impressions on Facebook, Twitter, and Instagram with 183,000 total social interactions and 5,500 #AllConnected uses
- 107,000 Gold Medal Game contest entries on Facebook, Twitter, and Instagram.

#ShareLove

At TELUS, we believe diversity creates a whole that is greater than the sum of its parts -- and there is no better way we show this embraced commitment than through our support of Pride. Every year, our team members, friends and family walk together to celebrate the power of inclusion and the importance of diversity for our customers, community and team.



In 2016, over 1,000 TELUS team members, friends and family proudly participated in 14 Pride festival celebrations from Victoria to Halifax, and in Manila, Philippines, and invited fellow supporters to spread messages of love and acceptance through our #ShareLove campaign. The message resonated in communities across Canada and in the Philippines, resulting in over 75 million social media impressions.

Pride is a demonstration of our commitment to fostering an inclusive environment for our team members and the power of diversity in supporting our customers and communities. Since 2000, TELUS has contributed more than \$3.5 million and thousands of volunteer hours of service to Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) organizations across Canada.

What does Pride mean to you? #ShareLove.





#TheGivingEffect

In celebration of our we give where we live philosophy, and in honour of the inspiring acts of giving our team members and customers do every day, we launched <u>#TheGivingEffect</u> marketing campaign. This hashtag is aligned to our belief that every act of giving inspires another. By enabling Canadians to give back and then amplify those actions, we hope to inspire a giving movement through this campaign. Our 2016 campaign highlights included:

- Over 40 million media impressions with the execution of a very robust social media, public relations and influencer outreach strategy
- 16,685 uses of the hashtag #TheGivingEffect
- Received more than 84,000 web visits to the campaign microsite telus.com/thegivingeffect.

As part of The Giving Effect campaign, we wanted to help customers support causes that mattered to them. We asked Canadians on social media to share how they give back to their local communities. Among the hundreds of stories submitted, one stood out as a truly inspiring example of how one act of giving can inspire a larger movement. It's the story of Todd Churchill, the man behind Reason for the Rink.



In 2011, Todd's youngest son Carter was born and later diagnosed with cerebral palsy. The following year, Todd came up with the idea to build a hockey rink in his backyard in Portugal Cove-St. Philip's, Newfoundland. By renting out his rink for games and tournaments, Todd raises money for local charities that help support children like Carter.

"As a parent, when your child receives a diagnosis like that your first instinct is to do whatever you can to try and make your child better or correct whatever the issue is. Unfortunately for Carter, it's not really possible. Hopefully there will be advances in medical sciences that will help him in the future, but currently there isn't, so [my wife and I] decided the next best thing would be to help charities that help children like Carter -- so we've really, since he was born, thrown all our passions and energies behind doing that," said Todd.

TELUS initially planned to give Todd \$5,000 in support of a charity of his choice, but we were so inspired by his story we increased the donation to \$11,244 --- the exact amount needed to achieve his 2016 fundraising goal of \$100,000, six months ahead of schedule. The TELUS donation will be split between two local charities: Rainbow Riders, a therapeutic horse riding centre in St. John's, and Easter Seals Newfoundland, an organization dedicated to providing programs for people living with disabilities.

The Churchill family truly exemplifies The Giving Effect and the notion that every act of giving, big or small, inspires another.

Find out more by watching the video.



#RiseAbove

Our commitment to youth and technology is demonstrated through our annual WE Day campaign. In 2016, through the power of technology we took a stand against a significant social issue facing today's youth and their families – cyberbullying. Through the #RiseAbove campaign, we wanted youth to recognize their limitless potential despite the actions of cyberbullies, while giving them and their parents the tools to combat online negativity through our TELUS WISE program.



Our 2016 campaign highlights included:

- Strong awareness with our digital campaign driving more than 27.4 million impressions and 33,000 clicks to the TELUS WISE website, more than 1.7 million video views and 4,376 shares across all social
- 17,676 Snapchat uses and the #1 filter in Ottawa and #18 filter in Toronto.

Supporting employees

Our employees are building a friendlier future

Our employees are the foundation of our business, contributing to our success as a globally leading telecommunications company. Our culture is anchored in our TELUS leadership values – values created by our employees more than 15 years ago. Living these values has helped us:

- Build stronger, more sustainable communities
- Enhance our environment, while reducing our own environmental footprint
- Improve our society
- Create a high-performing team.

Our focus on our employees involves actively listening to our team. By listening, we have created an inclusive, innovative and supportive culture that is the driver of our business results.

Highlights of 2016:

- Employee engagement levels continued to place our organization within the top quartile of all employers surveyed
- Named one of <u>Association for Talent Development's</u> (ATDs) BEST organizations for the eleventh year and second-year for being named Best of the BEST organization. This award recognizes organizations

that demonstrate enterprise-wide success as a result of employee talent development.

- Recognized as one of the <u>Top 100 Employers in Canada</u> for the eighth consecutive year
- Recognized as one of Canada's Best Diversity Employers for the eighth consecutive year
- Recognized as one of Canada's Top Employers of Young People (part of Top 100) for the sixth consecutive year
- Recognized as one of <u>Canada's Top 10 Most Admired Corporate</u> <u>Cultures</u> by Waterstone Human Capital for the seventh consecutive year.

Labour and human rights

Who we are

The TELUS team is a collaborative network of highly-skilled employees who are committed to improving the lives of people, our communities and the environment.

We are committed to drawing from a diverse candidate pool that reflects our customers and the communities we serve. At TELUS International, our recruitment policy for senior roles is to promote from within the local team or hire candidates from the local market where we operate. Integrating new employees in a way that helps them relate and thrive within our unique culture matters to us.

Employee demographics by residence¹

Canada		Female	Male	Total
	British Columbia	2,864	4,920	7,784 🗛
West	Alberta	1,883	3,701	5,584 A
West Total		4,747	8,621	13,368
Canadian Total		9,323	16,372	25,695

Canada		Female	Male	Total
Droirio	Saskatchewan	31	77	108 🗛
Prairie	Manitoba	21	41	62 A
Prairie To	tal	52	118	170
East	Ontario	2,742	3,864	6,606 🗛
East	Quebec	1,710	3,631	5,341 A
East Total		4,452	7,495	11,947
	Newfoundland and Labrador	18	36	54 🗛
Atlantic	New Brunswick	25	44	69 A
Nova Scotia		29	58	87 A
Atlantic Total		72	138	210
Canadiar	n Total	9,323	16,372	25,695

Internationa	al	Female	Male	Total
Asia	Australia		4	4
Pacific	Philippines	6,571	6,339	12,910
Asia Pacific	: Total	6,571	6,343	12,914
	Bulgaria	1,114	1,256	2,370
Europe	Romania	604	427	1,031
	United Kingdom	1	10	11
Europe Total		1,719	1,693	3,412
Central	Guatemala	2,020	3,313	5,333
America and the	El Salvador	959	1,727	2,686
Caribbean	Saint Lucia			
Central Am	erica and the Caribbean Total	2,979	5,040	8,019
North America ²	United States	663	549	1,212
North America Total		663	549	1,212
Internation	al Total	11,932	13,625	25,557 🗛
		TELUS	S Total	51,252 A

Demographics by employee type¹

Employees		Female	Male	Total
Canadian	Full-time	8,023	14,628	22,651
Canadian	Part-time	1,300	1,744	3,044
				25,695
International	Full-time	11,251	13,068	24,319
memational	Part-time	681	557	1,238
				25,557
		Total		51,252

1 As of December 31, 2016

Demographics by employee contract¹

Employees		Female	Male	Total
Canadian	Permanent	9,167	15,976	25,143 🗛
Canadian	Temporary	156	396	552 A
	25,695			
Internetional	Permanent	11,814	13,497	25,311 🗛
International	Temporary	118	128	246 A
	• •			25,557
		Total		51,252 A

1 As of December 31, 2016

1 As of December 31, 2016.

2 Excludes Canada.



Employees by generation¹

Employees		Female	Male	Total
	Silent (1925 - 1945)	1	2	3 A
Canadian	Baby Boomer (1946 - 1964)	1,763	2,693	4,456 🗛
Canadian	Generation X (1965 - 1979)	3,620	6,682	10,302 🗛
	Millennial (1980 - 2000)	3,939	6,995	10,934 🗛
				25,695
	Silent (1925 - 1945)	1	1	2 A
International	Baby Boomer (1946 - 1964)	179	195	374 A
International	Generation X (1965 - 1979)	1,411	1,784	3,195 🗛
	Millennial (1980 - 2000)	10,345	11,641	21,986 🗛
				25.557

1 As of December 31, 2016.

Workforce profile of domestic federally regulated employees^{1,2}

	Canadian	TELU	JS Overall ⁴	,5,6
Group	workforce availability ³	2015	2014	2013
Women	48.2%	35.8% 🗛	36.4%	37.2%
Members of Visible Minorities	17.8%	16.7% A	15.9%	15.4%
Persons with Disabilities	4.9%	2.3% A	2.4%	2.6%
Aboriginal People	3.5%	1.4% A	1.4%	1.4%

1 Data as of December 31, 2015 (data for previous year is available in June).

- 2 Based on data collected for reporting under the Federal Employment Equity Act.
- 3 Canadian workforce availability refers to the percentage of the designated group (i.e. Members of visible minorities, Aboriginal Peoples, Persons with disabilities, Women) in the Canadian workforce who may have the skills necessary to fill positions at TELUS. Based on 2011 Census data (National Household Survey and Canadian Survey on Disability), this is the most current information available.
- 4 TELUS actual refers to the percentage of the designated group (i.e. Visible minorities, Aboriginals, Persons with disabilities, Women) who are employed at TELUS. Figures are calculated based on the voluntary completion of a survey and may not be representative of the actual percentage of the TELUS workforce.
- 5 In 2013, we changed our calculation methodology to a December 31 year-end reporting cycle. The 2015 numbers have been re-stated to align with this calculation methodology.
- 6 In 2014, we changed our National Occupational Classification (NOC) table. TELUS adheres to the 2011 table instead of the 2006 table. The revised table was implemented by Government of Canada.

Workforce profile by age for domestic employees

%	Silent (1925–1945)	Baby Boomer (1946–1964)	Generation X (1965–1979)	Millennial (1980–2000)
Overall		17	40	43
Senior managers		26	67	7
Middle and other managers		15	50	35

Workforce profile of TELUS Domestic¹

%	Female	Male	Total
Overall	36	64	100
Bargaining Unit	36	64	43
Management/Professional	36	64	47
TELUS Retail	40	60	10

1 Active employees as of December 31, 2016.

Workforce profile of TELUS International

%	Female	Male	Total
Overall	47	53	100
Directors and above	36	64	1
Management/Staff	42	58	19
Agents	48	52	80

1 Active employees as of December 31, 2016.

Labour

Bargaining Unit

Unionized employees of TELUS are covered by four major collective agreements with the following unions:

- Telecommunications Workers Union, United Steelworkers Local 1944 (TWU)
- Syndicat québécois des employés de TELUS (SQET)
- Syndicat des agents de maîtrise de TELUS (SAMT)
- B.C. Government and Services Employees' Union (BCGEU).

TELUS and the TWU achieved a new five-year collective agreement in November, 2016. The renewal agreement, which was ratified by more than 68 per cent of the members who voted, expires on December 31, 2021. The contract with the TWU covers 9,482 employees across Canada, predominantly located in B.C., Alberta, Ontario and Quebec. Our contract with the TWU is the only nationwide collective agreement in the wireless and wireline telecommunications industry.

We also have two major collective agreements in the province of Quebec. The larger of the two is with the SQET, which covers 757 trades, clerical and operator services employees and the other is with the SAMT, which covers 631 management and professional employees. TELUS engaged in advance negotiations with each union resulting in an expedited bargaining process that produced renewal agreements three months and 12 months prior to the expiration of the current agreements with the SAMT and the SQET respectively. The renewal agreement with the SAMT was ratified by 95 per cent of the members who voted and is effective from April 1, 2017 to March 31, 2022. Our new contract with the SQET, which was ratified by 81 per cent of the members who voted, comes into effect on January 1, 2018, and expires on December 31, 2022.

Our subsidiary, TELUS Sourcing Solutions Inc., has 64 employees covered by a collective agreement with the B.C. Government and Service Employees' Union. The collective agreement was successfully renewed in the spring of 2016. The new contract is effective May 1, 2016, and expires on April 30, 2019.

We maintain respectful relationships with the bargaining agents that represent our employees across Canada and thus the right to exercise freedom of association and collective bargaining is not at risk or an issue for TELUS.

TELUS upholds our employees' right to freedom of association at the workplace, and maintains a constructive dialogue with all labour unions and work councils active in our operations.

Our collective agreements contain mutually agreed upon adjustment processes that include:

- Redeployment to another position based on seniority/qualifications
- Wage protection/retraining opportunities
- Paid relocations
- Early retirement or voluntary severance options for employees affected by organizational change
- Advance notice periods for employees and the union in cases of management initiated workplace changes. Note: notice periods are different in each collective agreement (from a minimum of three weeks to a maximum of 12 months) and vary based on the nature of the operational issue, and in some cases an employee's seniority.

Union recognition through consultation

TELUS strongly believes in building respectful relationships with the bargaining agents representing our employees. Communication with the unions is recognized as an important element in nurturing these relationships. To this end, we have negotiated provisions in our collective agreements with the TWU and the SQET that establish formal structured consultation committees and processes.

In addition to the regular day-to-day information sharing with unions, in 2016, there were a number of joint consultation sessions at the senior leadership



and executive level to discuss matters of mutual interest. In the new collective agreement with the TWU, we have expanded our commitment to consultation through three new formalized joint union–management consultation processes concerning:

- Workplace accommodation
- General workplace issues
- The grievance and arbitration process.

Additionally, TELUS provides advance notice to our unions and affected employees regarding operational changes such as contracting out, technological change and mergers, acquisitions and divestitures. Notice requirements of such changes are contained in each of the collective agreements.

Union Representation

Group	Employees covered by a Collective Agreement	Total No. of Employees	% covered by a Collective Agreement
Domestic	10,934	25,695	42% A
International		25,557	
TOTAL ¹	10,934	51,252	21%

1 Active employees as of December 31, 2016.

Bargaining Unit employees by Union Affiliation

Union	Number of employees
TWU	9,482
SQET	757
SAMT	631
BCGEU	64
TOTAL ¹	10,934

1 Active employees as of December 31, 2016.

Human Rights

TELUS has a long-standing commitment to respecting and protecting human rights as outlined in our <u>Code of Ethics and Conduct</u>, and reflected in our respectful workplace, employment equity and diversity practices. The Code ties together all policies regulating business behaviour, and provides guidelines for the standards of ethical conduct expected of all employees, including officers and members of the <u>TELUS Board of Directors</u>. The Code, which is updated and published annually, formalizes our commitment to safeguard internationally proclaimed human rights. Further details about TELUS' expectations are provided for employees in our Respectful Workplace policy.

Each year, TELUS requires our employees and contractors to complete an online training course that outlines key aspects of our Ethics, Respectful Workplace, Security and Privacy policies. Entitled Integrity 2016, the course was completed by 100¹ per cent of of employees and 93 per cent of contractors. TELUS has specific training based on our Respectful Workplace policy that is required for all new employees.

1 3% of employees completed 2016 Integrity Training in the 2017 calendar year. 100% completion was achieved as of March 9th 2017. 2016 Integrity Training completed in 2017 will not be counted in our 2017 Integrity Training tracking.

In addition to complying with the Code of Ethics and Conduct and Respectful Workplace policy, our international <u>operations</u> follow local legislation that protects human rights in all jurisdictions where we operate.

TELUS has several processes in place to further monitor our human rights practices:

- Collective agreements that set out the steps of grievance and arbitration processes available to employees
- An internal complaints procedure investigated and addressed by the Respectful Workplace Office, and reported quarterly to the Human Resources and Compensation Committee of TELUS' Board of Directors
- The TELUS <u>EthicsLine</u>, which provides anyone the opportunity to anonymously and confidentially ask questions, request support or make a good faith report about a real or perceived violation of the Code of Ethics and Conduct, government law or regulation, questionable business practices or accounting/auditing matters.
- Comply with applicable laws and regulations wherever they operate
- Follow recognized standards of behaviour
- Advance social and environmental responsibilities
- Operate consistently with TELUS' commitment to being a leading corporate citizen
- Make certain their affiliates, suppliers, employees and contractors perform obligations to TELUS that are in line with the ethical standards set out in this Code.

TELUS' <u>Supplier Code of Conduct</u> sets out social and environmental practices that our business partners must adhere to. We expect our suppliers to:

- Comply with applicable laws and regulations wherever they operate
- Follow recognized standards of behaviour
- Advance social and environmental responsibilities
- Operate consistently with TELUS' commitment to being a leading corporate citizen
- Make certain their affiliates, suppliers, employees and contractors perform obligations to TELUS that are in line with the ethical standards set out in this Code.

Please see our United Nations Global Compact – Communication on Progress to learn more about human rights pertaining to conflict minerals.

Employee experience

Our future-friendly culture

Our award-winning culture is our competitive advantage. TELUS' people and culture strategy focuses on creating a diverse and inclusive culture that allows us to deliver on our future-friendly promise for our team, customers, and communities. It involves:

- Attracting and retaining the best employees
- Investing in professional growth for all employees
- Developing a future-friendly workplace
- Creating a personal connection with TELUS
- Enabling business productivity and success
- Communicating in an effective and transparent manner.

Diversity and inclusiveness

At TELUS, we consider diversity and inclusiveness critical to our success. This philosophy is ingrained in all areas of our business from our people practices to suppliers to our products and services, and to our work in the community. Diversity helps us to be a more authentic reflection of our customers and the communities where we live, work and serve. We recognize that diversity of thought -- the genesis of innovation -- enhances our competitive position and allows us to benefit from complementary expertise, which is a driver for our success.



Our diverse and inclusive culture helps our company make significant advancements in the areas of customer experience and attracting and retaining the best talent. In 2016, we continued to advance our leadership in this area:

- Named one of Canada's Best Diversity Employers for the eighth consecutive year
- Board composition of 42 per cent diverse independent directors nominated for election at our next annual meeting, including 25 per cent female
- Added three new diversity questions to our annual engagement survey to help us identify potential barriers to inclusion, reinforce leadership accountability and create a baseline to guide future diversity and inclusion scorecard metrics
- Set up an employee advisory board that provides unique customer insights about our Chinese and South Asian customers
- Evolved the Champion of Women Award into the Champion of Diversity Award
- Held National Aboriginal Day celebrations across the country
- Supported Remembrance day celebrations across the country, purchased 15,000 poppies and made a \$15,000 donation to the Dominion Command Poppy Trust Fund
- Continued our Mentoring programs
- Hosted an accessibility event to showcase how TELUS Digital moved their accessibility practices beyond a legal/compliance focus to a future-friendly customer first focus
- More than one thousand team members, families and friends attended Pride Parades and our #ShareLove campaign was deployed across 13 communities in Canada and one in the Philippines.

Monitoring Engagement

Employees are the heartbeat of our business and we are proud of our awardwinning culture. Each year, we invite all of our employees to share their ideas, comments, and feedback on how we can improve their day-to-day experience through our annual engagement survey. Leaders use this feedback to gain insights into what is working, as well as identify areas of opportunity. Teams then work collaboratively to identify top priorities and implement action plans that will lead to improvements.

Our engagement levels continue to place our organization within the top quartile of all employers. We believe that our relatively strong employee engagement score continues to be influenced by our intense focus on the customer experience and our success in the marketplace. We plan to continue our focus on non-monetary factors that are clearly aligned with engagement, including performance management, career opportunities, training and development, recognition and our Work Styles program.

We plan to continue to listen to our employees and leverage Fair Process to collectively implement solutions that will further enhance our customer and employee experience.

See section 10.5 of our MD&A in our <u>2016 Annual Report</u> for a further discussion on risk and mitigation with respect to employee engagement, recruitment and retention.

Turnover

Voluntary turnover rates for employees rose in 2016, partially due to our 2016 operational efficiencies and restructuring programs, which had a focus on employees eligible for retirement.

Competition for talent in specialized or emerging skill areas can be challenging. We have an innovative sourcing strategy to proactively attract and engage candidates who may not actively be looking for new opportunities.



Year-over-year domestic turnover rates¹

%	2016	2015	2014	2013
Voluntary ²	11.4	9.3	10.1	10.7
Involuntary	4.7	6.3	3.8	4.3
Total	16.1	15.6	13.9	15.0

1 In 2013, we changed our calculation methodology to use a headcount denominator determined by averaging year- opening over year-closing numbers, not an average of all twelve month-ending headcounts. As well, we are only reporting on domestic employees that are tracked in the primary Human Resources Management system.

2 Voluntary rates include employees that left the Company due to retirement.

Annual domestic turnover by gender and generation

%	2016	2015	2014	2013
Female	18.1	17.8	15.4	16.6
Male	14.9	14.2	12.9	14
Millennials (1980 - 2000)	20.3	20.9	22	24.1
Generation X (1965 - 1979)	8.2	9.3	6.5	8.3
Baby Boomer (1946 - 1964)	23.8	17.4	13.5	13.4
Silent Generation (1925 - 1945)	111.1	84.2	25	48.9
Total	16.1	15.6	13.9	15

In 2017, we will continue to encourage our employees to proactively advocate on behalf of TELUS with their families, friends and in their communities as an employer of choice for all.

Talent development

Our culture is driven by the quality and diversity of employees and leaders in our organization. We believe that individuals who exemplify our brand, values, and demonstrate a business ownership mindset, are best able to contribute to our future business strategy and deliver results.

Performance development

We know regular performance conversations with our employees positively impact their experience, which drives engagement and helps them excel in their role. We are guided by the belief that how we work is just as important as what we achieve. Employees are evaluated against indicators directly related to our values, providing transparency and a clear path for their further development.

Employees participate in frequent performance conversations that allow them to get feedback on their progress, and the development support required for them to be successful.

In 2016, enhancements were made to our performance development tool within our internal website, TeamHub. These changes were geared toward simplifying the process to add comments, reducing the amount of time and effort required and enhancing the user experience. These changes have made the process much easier but more importantly have allowed employees and leaders to focus their time on having even more meaningful performance conversations.

Our goals for 2017 are to:

- Provide meaningful and timely performance feedback, which allows our employees to succeed
- Enhance the interlock of objectives across our teams as we work together to put the needs of our customers first
- Continue to enhance the quality of individual performance objectives.

In 2017, we plan to continue supporting leaders with ongoing process enhancements that make performance development simpler.

Learning and development opportunities

Supporting the development and growth of our employees is essential to our business success. We believe the investments we make in our team directly correlate to their engagement, productivity and diversity of thought -- as well as our business results.

We see everyone as a leader and support employees in making and implementing decisions in a fair and collaborative manner. A hallmark of our unique culture has always been our commitment to learning, development, and continuous improvement. In 2016, we:

- Continued to be recognized as one of the <u>Association for Talent</u> <u>Development's</u> BEST organizations for the 11th year. For the past two years TELUS has also been named the Best of the BEST organization. This award recognizes organizations that demonstrate enterprise-wide success as a result of employee talent development.
- Hosted Director Leadership Forums, which serve as a mechanism to continue the progression of our culture by advancing the specific leadership attributes that are integral to the continued success of our organization. Over 570 Directors attended across Canada.
- Continued the inaugural cohort for the TELUS MBA, a fully customized masters of business administration program, developed in partnership with the University of Victoria specifically for our company and our team. It includes common and fundamental MBA learning objectives with a TELUS focus in the teaching and projects, specifically on the concepts of purpose and community. Twenty employees from four different provinces are participants in the first cohort, with online and face-to-face education offerings spread out over a two-year period.
- Evolved our Leadership Now program, which focuses on individuals who have demonstrated a level of consistently high performance and high potential. The program focuses on the building blocks of self-leadership, strategic leadership competencies, and the business acumen necessary to navigate our complex industry.

 Held five Closer to the Customer (C2C) events involving 500 participants across the country. Employees spend a day in the life of a customer-facing employee gaining a greater insight into the customer experience.

Average training hours^{1,2} – TELUS Domestic

Category	TELUS Domestic	Average training hours
Overall		18.59 🔥
Gender	Males	19.6 A
Gender	Females	16.9 A
	Bargaining Unit	31 🔺
Role	Management Professional	9.3 A
	Retail	9.8 A
	Single Contributor	19.4 A
Level	Middle Manager	15.3 A
	Senior Manager	6.1 🗛

1 Only includes training that was captured and recorded internally, as of January 24, 2017. This number does not include business unit specific training, external training or educational pursuits paid for by the company and other ad hoc training sessions that employees may engage in.

2 The approach to determine average training hours has been adjusted to ensure consistency with other employee data. 2016 averages are based on the total headcount of domestic employees on December 31, 2016. Training that was provided for team members in 2016, who were no longer with the company on December 31, 2016, has not been included.

Our employees benefit from clear, simple and high quality learning opportunities designed to meet them at their developmental stage and align their personal and career development goals with the goals of our organization. We support employees by offering formal, informal and social learning approaches, allowing them to learn what they need to know, when they need to know it, and in a manner that works best for them.



Return on learning¹

Performance impact of learning	2016
Employees that felt satisfied with the learning opportunity (%)	94%
Employees that feel the learning opportunities helped their performance on the job (%)	86%
Employees that would recommend this learning opportunity to other employees (%)	92%

1 Results are based on responses to common survey questions included in all corporate broad scale leadership development offerings (excluding TELUS International).

We continue to focus on one national leadership learning strategy. The curriculum is closely linked to our long-term development plans, succession management, and business-specific technical learning objectives. In addition to supporting general skills and leadership development across our company, we created and delivered customized job specific training in 2016.

Our operations at TELUS International Philippines and TELUS International Central America provide educational opportunities for employees through an innovative TELUS International University (TIU). This program helps employees earn Bachelor and Masters Degrees while working. TIU provides tuition assistance through a subsidized program, and students have access to stateof-the-art library centres in TELUS buildings as well as university professors onsite. Also, TELUS International Europe® has a language academy that teaches language skills to employees.

Career development

We encourage and empower our employees to own their own career by leveraging experiential, formal and social learning opportunities. In fact, career development is part of our integrated human capital development strategy. Employees work in collaboration with their leaders to build a customized career development plan to address their particular development objectives, and discuss their progress against the plan throughout the year. A library of learning and development opportunities, with information on how to create meaningful career action plans, is available through an easy-to-use self-serve tool.

Whether it is through our formal training courses, online resources, leadership forums, our TELUS MBA program, or on-the-job learning, we know continuous career development is important for our employees. In 2017, we will continue to evaluate all of our learning opportunities to ensure we offer the variety we need to support employee's personal and professional growth.

Total rewards

We offer an integrated total rewards package that provides competitive, performance-based rewards aligned to our business strategy. Our employees have a flexible and diverse rewards package that includes salary and a performance bonus, flexible benefits, as well as retirement and share purchase programs. On top of the traditional components of this package, employees work in future-friendly offices, and receive discounts on TELUS products and services.

Compensation

Our cash compensation for employees not covered by a collective agreement consists of a non-variable base salary and a variable component that is designed to focus on results. This direction supports the TELUS leadership values and recognizes high performers and key talent who are critical to the success of our organization.

At TELUS, our compensation is market-based. We conduct ongoing reviews and compensation analysis of job roles relative to the market and take appropriate action to pay competitively. Consistent high- performers are compensated at or above the 75th percentile of the competitive market wage. Terms and conditions (including wages) for all employees covered by a collective agreement are negotiated between TELUS and the respective unions.



Compensation highlights:

- TELUS' average entry-level wage in Canada is above the median of minimum wages for all entry level roles, including management professionals, bargaining unit, and retail. The overall average is 35 per cent above the median.
- The base wages received by TELUS International Philippines employees are more than 26 per cent higher than the Philippines National Capital Region Minimum Wage.
- In Central America, a role as a call centre agent often pays 30 per cent more than what an administrative or entry level position at a bank would receive.
- In the U.S., TELUS International team members earn at least twice the minimum wage rate in base salary and access incentives and benefits.
- The base wages received by TELUS International Europe Bulgaria employees are more than three times higher than the Bulgarian National Minimum Wage.
- In Romania, the average wages are two times larger than the Romanian National Minimum Wage.

All of these ranges can increase substantially, in line with supplementary income to employees who are high-performing, have certain technical and language skills and may receive grants for various allowances like meals and transportation.

In 2017, we will continue to invest in our people – in their careers, education and well-being – and believe they will reward us with loyalty and engagement that translates into happy customers and enables us to grow our business.

Benefits

We provide competitive, comprehensive and flexible benefit packages for most permanent employees. This allows employees to customize a plan to suit their diverse personal and family situations, affording them peace of mind that their needs are being met with a cost effective solution. Our flexible benefits allow employees to choose from several options including life, long-term disability, and critical illness insurance, as well as access to comprehensive health plans. In 2016, 93 per cent of employees participated in our extended health and dental plans.

While benefits are not provided to temporary employees, most do receive a company contribution to a Health Spending Account that they may use toward health and dental costs. Part-time employees are eligible for the Health Spending Account, Retirement Savings and the Employee Share Purchase Plan.

Retirement and savings plans

We are committed to the financial well-being of our employees and encourage them to save for retirement through a variety of methods. These include:

- Legacy defined benefit plans
- Defined contribution pensions with matching options
- A voluntary group Registered Retirement Savings Plan
- A Tax Free Savings Account
- Employee share plans.

Our defined contribution pension plans allow members to contribute up to 10 per cent of their salary. TELUS provides a maximum contribution of 5.8 per cent.

During 2016, we held employee retirement savings information sessions across Canada providing presentations in three different theme areas:

- The Balancing Act Helping You Improve Your Financial Health: an overview of their pension plan while showing that participation in the plan is possible while balancing competing financial priorities
- Achieving Your Savings Goals Connecting the Dots: information on investment principles and how to determine how much one needs at retirement



• Retirement Income Options – Helping You Transition to Retirement: an informative pre-retirement session focused on how retirement funds will translate into retirement income and the role government programs will play at retirement.

We offer employees the ability to purchase TELUS shares through regular payroll deductions. This flexible savings plan allows employees to purchase between one and 20 per cent of their salary and up to six per cent is matched by TELUS, to a rate of 40 per cent (35 per cent for Directors or above).

In 2016, 27,713 employees were enrolled in one of our retirement savings plans and more than 22,000 employees participated in the employee share plans, controlling just over 16 million shares and ranking as our fifth largest common shareholder.

Total pay and benefits

\$ millions	2016	2015	2014
Total pay and benefits	\$2,939	\$2,708	\$2,487

We will continue to provide education around retirement savings and encourage employees in the defined contribution plans to maximize their savings for retirement. To assist us with this, in 2017, we are developing short videos to enhance and track this learning experience.

In 2017, the total cost of pay and benefits are forecasted to increase as a result of:

- Increases to legislated benefit costs (e.g., Medical Services Plan in B.C. and Canada Pension Plan)
- Increasing levels of participation in the TELUS defined contribution pension plans and the employee share plans
- Usage and inflation in our dental and extended health plan.

See section 9.3 of the MD&A in the 2016 Annual Report for a discussion on assumptions regarding employee defined benefit pension plans.

Recognition

Recognition is a fundamental component of TELUS' engagement strategy. Employee recognition, when delivered effectively, can be a powerful tool to help drive a high-performance culture, reinforce corporate values, achieve organizational goals, and engage employees. We have embraced a culture of recognition. This culture promotes and reinforces desired behaviours aligned to our leadership values, plays a role in retention, and shows employees we care.

In 2017, we are reviewing our recognition programs in an effort to improve our culture of appreciation.

Bravo - delivering tools to make recognition easier

In support of our culture of recognition, TELUS encourages employees to recognize colleagues who live the TELUS values, go above and beyond, and positively affect our customers, business and team. Through our Bravo platform, employees can now nominate their peers for recognition awards, right from their desk or mobile device.

In 2016, employees were recognized through several corporate recognition programs that reward employees who have demonstrated our values and made a significant contribution to the organization. Additionally, we worked with leaders to further develop recognition strategies, supported by toolkits and online materials that can be customized to meet the needs of their business unit and team.



Award Name	2016 recipients	2015 recipients	2014 recipients	2013 recipients
Career Milestone acknowledgements	7,085	4,075	3,386	4,169
Ovation awards	431	1,081	406	503
Passion for Growth awards	151	123	149	190
TELUS Legend awards	26	31	40	51
Own.it awards	150	134	195	81
Customers First Champions awards	200	200	200	177
Presidents Club awards	70	57	91	100
CHLOE awards (Connections Honours Leaders of Excellence)	48	50 (45 women, 5 men)	51 (46 women, 5 men)	53 (48 women, 5 men)
CEO Commemorative Coin program	663 (incl. CFC, CHLOE, Legends, Ambassadors and Presidents Club)	501 (incl. CFC, CHLOE, Legends, Ambassadors and Presidents Club)	1,177 (incl. Legends, Own.it, Ambassadors and Presidents Club)	1,552 (incl. Legends, Own.it, Ambassadors and Presidents Club)

Recognition program summary

TELUS has a track record of leading the way with our recognition policies, processes and programs. Continuing to improve our employee experience is a key differentiator for our company. Our 2017 roadmap for Bravo is to keep this tool scalable, innovative and capable of supporting the execution of our recognition strategy. We will also work to:

- Update our digital recognition resources
- Use recognition as a vehicle to drive our customers first culture and corporate values

- Share nomination stories of recognition recipients in quarterly habitat articles to inspire team members
- Improve the frequency and quality of recognition at TELUS
- Communicate various no-cost, low-cost, informal and formal recognition mediums and share best practices.

Our culture of respect

An essential element of our work life culture and our values at TELUS is our continued focus on respect in the workplace, and our commitment to creating and maintaining a positive and professional working environment.

The TELUS Respectful Workplace Office performs an annual review of the Respectful Workplace Policy to foster continued compliance with associated legislation in each of the jurisdictions in which TELUS operates, both domestically and internationally. A new online Respectful Workplace training course was launched in 2016. This new course provides a more in-depth and interactive review of what constitutes acceptable behaviours in the workplace, changes to applicable legislation, and what protections and processes are available should an issue arise.

Our Respectful Workplace training helps employees participate in building our culture together in a number of ways:

- All new TELUS employees must participate in a Respectful Workplace
 orientation
- Annually, all employees are required to complete the Integrity course, which includes Respectful Workplace content.

The Respectful Workplace office continues to offer refresher training courses when requested by Business Units.

Analysis of complaints filed with the Canadian Human Rights Commission (CHRC) is an indicator we use to determine if there are internal practices causing concern for our employees. Complaints can be referred back to the internal TELUS resolution process, a resolution may be reached through the CHRC, or the complaint may be dismissed.

CHRC Complaints	2016	2015	2014
Carryover from previous year	6 🗛	12	5
New	9 🗛	3	12
Closed	4 🗛	9	6
In progress at end of year	11 🗛	6	12

Closed CHRC Complaints	2016	2015	2014
Referred to TELUS internal or other resolution process`			2
Resolution reached	2	2	3
Dismissed	2	7	1

Health, safety and wellness

A healthier, safer future

Health

The health and well-being of our employees can be affected by many factors – social, economic and physical environments, as well as one's own individual characteristics and behaviours. At TELUS, we have programs that consider these factors, so we can support the best possible employee health and well-being.

In 2016, our absenteeism rate (which includes paid and unpaid time off work due to illness or injury) slightly increased to 6.2 days per full-time equivalent position. Our absenteeism rate is 37 per cent below the average of 9.9 days per full-time equivalent position for Canadian organizations with more than 500 employees. We attribute low absenteesim to our drive toward better health outcomes.

Absenteeism rates

	TELUS	Average Canadian rates ²			
Year	absenteeism per full-time employee ¹	For full-time employees	For organizations with >500 employees	For unionized organizations	
2016	6.2 A	7.8	9.9	11.9	
2015	6	7.4	8.8	11.3	
2014	6.2	7.4	9	11.3	

1 Data presented are for TELUS Domestic employees tracked in the primary Human Resources Management system.

2 Source: Statistics Canada.

In 2017, our focus on developing and enhancing targeted prevention and attendance programs will continue to help team members and leaders address absenteeism.

Safety

We continually monitor the effectiveness of TELUS' safety management system and investigate all reported health and safety complaints. We also investigate accidents to address emerging issues. We train employees to identify and manage their workplace hazards and set performance targets for hazard control programs. Safety performance results are then reported every quarter to the Human Resources and Compensation Committee of TELUS' Board of Directors.

All domestic employees at TELUS are represented by one of over 70 health and safety committees or a health and safety representative. At least 50 per cent of each committee and all health and safety representatives must be team members who do not exercise managerial functions. All bargaining unit participants are selected by the union representing employees, while management employee members of health and safety committees are selected by TELUS.

TELUS has realized a steady reduction in lost time accidents (LTA) since 2010, and this result continues to compare favourably with the 2015 U.S. Telecommunications Industry average of 1.2 LTA per 200,000 hours worked. Our goal in 2017, is to continue to reduce accidents and injuries and at minimum, maintain our 2016 ratio of 0.62 LTA. TELUS has had no work-related deaths since 1997.

Lost Time Accidents (LTA) per 200,000 hours worked¹

	2016	2015	2014
TELUS actual	0.62 🗛	0.70	0.71
TELUS target	0.70	0.70	0.74

1 Data presented are for TELUS Domestic employees tracked in the primary Human Resources Management system.

2 Data from TELUS' records as of February 10, 2017.

Wellness

In 2016, in support of our corporate priority to enable better health outcomes for Canadian team members, we launched our new wellness brand – OwnHealth. This program supports team members as they work toward or maintain peak physical and psychological health. OwnHealth has three foundational pillars:

- Mental Resilience: a comprehensive talk, teach and train pathway to proactive psychological health awareness, supported by a variety of programs, services and resources for employees and leaders. The Employee and Family Assistance Program (EFAP) provides confidential assistance to employees and their families through an extensive national network of counsellors 24/7.
- 2. Active Living: access to onsite 24/7 facilities, high-performance health centres in key locations, on-line personal training, access to health practitioners, healthy living challenges and non-denominational prayer and contemplation spaces that encourage employees to find a place for spirituality during their day.

3. Wise Nutrition: supporting a culture of nutrition awareness and literacy, access to healthy food choices across on-site cafeterias, vending machines and new technology enabled offerings.

In 2016, the Wellness and Health Services team continued to drive initiatives encouraging team members to take control of their personal health. We added and enhanced a number of features to our OwnHealth program, including:

- Hosting four national team fitness challenges engaging nearly 2,900 employees to take a leap forward in their health journey.
- Introducing <u>Wise Nutrition Guidelines</u>, modeled after the <u>Harvard</u> <u>Healthy Eating Plate</u>, as well as a <u>catering guide</u>, providing helpful tips to consider when ordering catered meals during team meetings, forums and other catered events.
- Hosting 10 virtual learning sessions on mental resiliency in coordination with Mental Illness Awareness Week (October 2 to 8). The sessions, which included stress relaxation techniques and getting restful sleep, were offered to 300 team members during the busy Fall/ Holiday season.
- Pursuing our partnership with Canadian Blood Services in the spirit of we give where we live. In 2016, TELUS team members gave 1,879 life-saving donations. Since 2010, employees have contributed nearly 13,395 donations.
- Conducting a third internal Self-Health pilot, a four-step program that allows individuals to take better care of their well-being by identifying and managing their personal health risks. The post-survey results continued to reinforce that using a wearable device and knowing one's biometric numbers is effective in building awareness around leading an active and healthy lifestyle.
- Maintaining a blog led by TELUS' Chief Wellness Officer, reaching nearly 7,070 page views.
- Continuing to offer alive@work, a bilingual digital publication offering information-rich, user-friendly content that reflects our healthy culture.
- Making available 10 non-denominational prayer and contemplation spaces in our TELUS buildings across Canada, supporting TELUS' commitment to diversity and inclusion.



Focus on 2017

In 2017, the development of a best in class, comprehensive health and wellness strategy will continue with a focus on awareness and prevention. Specifically, we aim to further reduce absenteeism and improve team member well-being by:

- Enabling flexible Work Styles
- Facilitating volunteer opportunities in our communities
- Continuing to raise awareness of the many innovative wellness programs and strategies available to employees and their families
- Incorporating new initiatives and technologies to engage additional TELUS team members in our programming.

This approach will help TELUS reach its goal to have the healthiest team members and workplace globally.



Sustainability stories

Touching people with technology

As providers of technology, it's our privilege to serve those beyond our customer base. Whether it's creating a unique program, or working with partners to provide a new service to the community – we're committed to making a difference in the lives of others. In 2016, we found ways to use technology to serve families in need, celebrate diversity, support future industry leaders, help the sick, assist remote communities and contribute to a more sustainable environment.



Reducing the risk of cyberbullying



Over 47 per cent of Canadian teens experience cyberbullying and those who have been victimized are nine times more likely to consider suicide. TELUS has pledged to help keep kids safe online.

Through TELUS WISE, we are a community partner and resource to help educate families and schools about Internet security. In 2016, we launched #RiseAbove, offering:

- Free awareness programs
- Education on the importance of keeping social media channels "clean"
- A special We Day program
- Support to victims of cyberbullying.

We also partnered with the Family Channel to launch webisodes and PSAs to promote positive online behaviour, advocate for bullying prevention and promote online resources for Canadian tweens and teens.

The fact that those who have suffered from cyberbullying are more likely to consider suicide creates an urgency to protect our children. No one knows this better than Carol Todd, the mother of Amanda Todd -- whose death brought this issue to the forefront on an international scale.

"The ultimate risk of this online behaviour is that we would lose another person," Todd says. Her generous support of #RiseAbove has helped us empower youth to take a stand against cyber stalking, bullying and harassment.

"When Amanda first died," Todd recalls, TELUS WISE was an idea that was in the works. And what it's done for me, is given me hope." — Carol Todd

That hope has spread, and TELUS has reached over one million Canadians, changing online habits — one child, family and community at a time. Please refer to <u>https://wise.telus.com/en/rise-above/</u>.



Almost half of Canadian teens experience cyberbullying

9 times

Degree to which victims of cyberbullying are likely to commit suicide compared to non-bullied youth



Helping families - Internet for Good



Access to technology is vital to our quality of life. The Internet can be a tool for enrichment -- we use it in our work and for play, education, exercise, and social interaction. Yet there are those in our community who have limited access to this technology because of social or economic barriers.

In 2016, we launched the TELUS *Internet for Good* program, offering lowcost Internet service to single-parent families receiving income or disability assistance from the provincial government. The pilot program -- first launched in B.C. and Alberta -- is supporting over 18,000 families and at no cost to government or taxpayers.

At a cost of only \$9.95 monthly, President and CEO Darren Entwistle says *Internet for Good* was designed to have an impact where it's needed the most.

"The families participating in the TELUS Internet for Good program now have access to countless opportunities that are often taken for granted," he says. "From applying for a job, to accessing online learning, to connecting with distant loved ones, to virtually experiencing vibrant art and music, Internet connectivity will ensure these families are empowered to reach their full potential in our increasingly digital society." TELUS has also collaborated with technology partners to enable families who cannot afford a computer to purchase a low-cost refurbished desktop or laptop. We're also working with libraries and literacy advocates that offer free digital literacy resources such as TELUS WISE, our free educational program on Internet security and cyberbullying made available to all Canadian families.

"For the first time in over two years, we have home Internet! I realize most people in B.C. have Internet, but for us it's a really big deal."

- Skylark, Internet For Good customer



18,000

The number of families who benefit from the TELUS Internet for Good program in 2016

\$9.95/month

The low-cost fee for internet under the TELUS Internet for Good program

Using drones to put customers first



The high-tech trickle-down effect of drones

In 2016, TELUS created a livestream of the <u>Canada Day fireworks</u> at Toronto's Harbourfront Centre, after we flew a drone right through the display for a spectacular perspective of the celebration.

Using drones, TELUS is creating an even bigger bang for our employees and customers.

The drone market is expected to grow to more than \$125 billion by 2020. Businesses are using these compact, remotely piloted aircrafts for everything from checking crops for insect damage to assisting with search and rescue efforts. At TELUS, drones are transforming the way we think about network reliability and efficiency. We are using this new technology to enhance efficiency, create cost-savings, increase safety in our operations, and deliver higher network performance. Our first Transport Canada-approved drone pilot training program for cell tower maintenance and installation involved 11 Technology Strategy team members based in Alberta. Tall towers transmit radio communications without interruption but are exposed to the elements and need to be constantly monitored. Drones reduce the need to climb these towers because the footage shows an incredible level of detail.

"Drones give our technicians a 4K video live stream of our network. So far, we're pleased with the results we've had. Using drones has helped us save time and money. They've helped our technicians work safer and they've enhanced reliability for the benefit of our customers."

-- Jason DeHetre, manager of Planning and Engineering.



\$125+ Billion

Estimated size of the drone market by 2020



Launching the T-Squared Accelerator



TELUS and TEC Edmonton join forces to grow the next generation of tech entrepreneurs

2016 was a big year for promising new start-ups in Alberta's capital city. Through the launch of the *T-Squared Accelerator*, a program made possible by the partnership of TELUS and <u>TEC Edmonton</u>, innovative Information and Communications Technology companies are receiving the space, support and seed funding to bring us the technologies of tomorrow.

Our contribution of \$200,000 annually, includes \$100,000 going directly to selected start-ups. They are developing platform technologies in the areas of customer experience, Internet of Things (IoT), big data analytics, health and wellness data integration and analytics. These companies are also developing technologies to improve high speed wireline connectivity. These companies access TEC Edmonton's:

- Business mentorship service
- Market research services
- Incubator space for one year
- Investor preparation assistance.

"TELUS is committed to leading the way with innovative solutions and encouraging Canadian technology success stories in Alberta and across Canada."

-- Ibrahim Gedeon, TELUS' chief technology officer

A joint venture of the City of Edmonton and the University of Alberta, TEC Edmonton was rated Canada's #1 incubator by Startup Canada in 2014 and fourth best incubator in North America by the 2015 University Business Incubator (UBI) Index. While they provide these start-ups access to a widereaching industry network that includes angel investors, TELUS' nationwide team of experts are also contributing product development, technical guidance, global market insight and local support from our Chief Technology Office in Edmonton.



TELUS' annual contribution to the new T-Squared Accelerator program



TELUS Days of Giving 10th anniversary



Celebrating 10 years of TELUS Days of Giving at TELUS International

It began with just 350 volunteers in Manila, forming a human chain to move heavy blocks and mix cement that would become walls of the two houses we built for families living in desperate conditions. Those two houses would become part of a thriving and safe community of 200 homes.

That was back in 2007, with the very first TELUS Days of Giving. Ten years later, we are celebrating more than 40,000 volunteers who have helped over 70,000 people all over the world.

The relationship between the success of our company and the well-being of the communities where we live, work and serve is paramount to our values as a company. We are proud of the impact we have created together with our global partners to make lasting changes in our communities. In addition to the daily and weekly charitable activities of the TELUS team, once a year we focus our efforts on our TELUS Days of Giving. Thousands of our team members -- many who have already put in a full day at work -- join a common cause, with families and children getting in on the act. We've built entire schools in Central

America, refurbished youth centres in Eastern Europe and constructed villages for the homeless in the Philippines.

For our 10th anniversary in 2016, TELUS Days of Giving events were held in 11 international locations.

"Our TELUS Days of Giving provide an opportunity for team members --in every role across the organization--- to do challenging work, together. The President of TELUS International ends up hammering nails alongside a contact centre agent, and that, in my view, is how you help develop mutual respect across roles."

- Marilyn Tyfting, Chief Corporate Officer



40,000+

the number of volunteers who have been part of TELUS Days of Giving over the last ten years.

70,000+

the number of people the TELUS Days of Giving has helped since 2007



Sustainability through repurposing



Our environmental mandate benefits community

Back in 2011, we began reducing our corporate real estate footprint as a part of our environmental mandate. This activity left us with excess equipment and furniture, so we partnered with Green Standards, to repurpose these items for the benefit of others across the country.

As of 2016, this partnership has led to:

- 500 metric tonnes of reusable goods diverted from landfill
- A reduction of 871 tonnes of greenhouse gas emissions
- More than \$350,000 worth of donated goods to non-profits for 18 different projects across Canada.

TELUS director of sustainability,Geoff Pegg, says these donations do not only serve non-profit organizations in creating a more functional, safe and welcoming environment, but they have also saved them thousands of dollars that can instead be invested in their programs and the mandates they've set out to accomplish. "Many believe we live in a disposable society. We want to flip that around and say, what can we do with this? How can it be repurposed?" -- Geoff Pegg, TELUS director of sustainability





500 metric tonnes

of reusable goods diverted from landfill

871 tonnes

of reduction of greenhouse gas emissions



worth of donated goods to non-profits across Canada



The Internet of Things in action



We've all been there: circling around a parking lot, hoping to find that coveted spot some other driver missed. In fact, <u>stats</u> suggest that 30 per cent of traffic in some cities is caused by people looking for parking. That's where TELUS comes in.

Tapping into our Vancouver <u>5G Living Lab</u>, which was created in partnership with Huawei, our Technology Strategy and Internet of Things (IoT), teams recently piloted a smart parking solution, which we will be able to bring to Canadians in the future. It uses pre-standard NarrowBand IoT (NB IoT) technology, which is a low-power wide area network radio technology standard that enables a wide range of devices and services to be connected using cellular telecommunications bands.

Here's how it works. The team placed smart detection sensors in parking spaces connected to wireless technology at TELUS Garden in downtown Vancouver, B.C. When a vehicle pulls into an available parking spot, the sensor sends a message to the application server, updating the status of the spot to 'occupied'. When the vehicle leaves, the sensor once again updates the application server, changing the status of the spot back to 'available'.

The solution has the potential to decrease traffic congestion, mitigate pollution, maximize the use of parking spaces and, perhaps most importantly, alleviate driver frustration and wasted time. Check out the video below to see the pilot in action.

Cool, but what else can it do?

Now the team has proven the sensor technology works, the possibilities are endless. We will be taking our NB-IoT capability to market to help customers solve a wide variety of issues.

"Narrow Band IoT promises lower costs, better coverage especially indoors and much improved battery life, which are foundational to enable the connected world of IoT," says Jerome Birot, vice-president, Small Cell Enablement. "It is the natural evolution of our spectrum investment to advance our 3G/4G Machine-to-Machine applications to the IoT world of billions of connected devices."

Our IoT team is working with the City of Vancouver to understand some of the city's most pressing problems and create solutions. For example, as everyone knows, it rains in Vancouver ... a lot. Every time there is a big storm, the city deploys hundreds of trucks to monitor storm drains across the city to ensure there are no blockages that might cause flooding. With our sensor technology, the city could be alerted to potential obstructions in real time and deploy maintenance directly to the problem area — saving time and money.

Ask an expert

"Through innovative technology, TELUS is leading the way to address customer needs as we move towards an estimated 3 billion connected devices in 2021."

-- Michael Cihra, Vice-president, IoT



Our sponsorship of GLOBE 2016



Shining a light on corporations stepping up to turn environmental challenges into business opportunities

Last March, Vancouver landmarks were bathed in green light to welcome delegates from 50 nations to the GLOBE 2016 Sustainable Business Summit and Innovation Expo. Among the landmarks were Science World at TELUS World of Science and TELUS Garden.



Glowing ourselves green was not the only action we got in on. TELUS was on board as a major sponsor and event host of Globe 2016. More than 240 business and government leaders, speakers and innovators -- and 200 cleantech exhibitors -- were all on site to showcase their committment to building a better, more sustainable future.

Prime Minister Justin Trudeau and Environment Minister Catherine McKenna made exceptional contributions with their presence, as did IKEA Canada president Stefan Sjöstrand, Levi & Strauss Co. vice president Michael Kobori, and many others.

Andrea Goertz, chief communications and sustainability officer for TELUS, represented our commitment to sustainable business practices during our panel for the Women's Networking Luncheon.

She also welcomed Wired magazine co-founder and NewCo Chairman and CEO John Battelle to TELUS Garden for our event, Inside Out: Exploring the TELUS Vision for Building a Better World and Brand. They discussed creating positive social and environmental impact both inside and outside corporate boundaries. Goertz also shared the TELUS approach to leadership in this new economy and how our Work Styles program has increased productivity and team member engagement while reducing costs and our carbon footprint.

Goertz also hosted our third event, Sustainability Info Session and Panel Discussion on the conception, development and building of TELUS Garden. Ian Gillespie, founder, Westbank Corp, and Thomas Mueller, president and CEO, Canada Green Building Council, joined the discussion and Geoff Pegg, TELUS director of sustainability, acted as moderator.

"I'm proud of what we've been able to achieve as a team and honoured to share our sustainability journey with other global leaders at GLOBE Series 2016."

-- Andrea Goertz, chief communications and sustainability officer for TELUS

Challenging students to be sustainable



Giving and gaining: engaging with MBA students for sustainability solutions

Academic environments are increasingly committed to developing future leaders in sustainable practices. The Simon Fraser University (SFU) Beedie School of Business is no exception, and we were proud to sponsor its NET Impact Sustainability Challenge 2016.

The competition featured 10 teams from six universities presenting on a live case provided by co-sponsor, FortisBC. The teams were challenged to offer specific greenhouse gas emission reduction strategies to a panel of expert professional and academic judges.

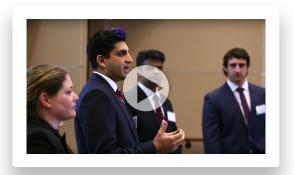
SFU associate professor, Stephanie Bertels, says choosing a live case was important, as they wanted to get students offering real answers, not just a high-level proposal.

"We want students interacting with companies, solving problems and realizing they're not easy solutions. That's how we approach learning."

-- Stephanie Bertels, SFU associate professor

Given TELUS' commitment to corporate social responsibility, it was not only our pleasure to sponsor the event, but to also participate in the judging. Inspired by the the students and their work, competition judge and TELUS director of sustainability, Geoffrey Pegg, says it was fortunate to be able to both 'give where we live' and get an early introduction to an innovative pool of talent.

From a recruitment perspective, we're hiring the best, so it's a great opportunity to engage with students to hear what matters to them. -- Geoffrey Pegg, TELUS director of sustainability





Socializing the power of diversity



Celebrating the power of diversity

We have a long history of supporting the Lesbian, Gay, Bisexual, Trans and Queer (LGBTQ) community and have been a proud sponsor of Pride parades for over a decade. To deepen our relationship with our consumers and employees, we've contributed over \$3.5 million dollars to LGBTQ-related causes since 2000.

For the 2016 Pride Season, we launched an integrated #ShareLove social media platform to create a network of love and engage with team members and consumers in innovative ways. The campaign was a success, with over 1,000 TELUS employees, friends and family participating. This represents a 100 per cent increase in traditional media attention and a 956 per cent increase in social media activity.

An integral piece of #ShareLove was the production of <u>videos</u> providing a platform for LGBTQ consumers to tell their own stories. Senior communications manager and a member of our Spectrum LGBTQ Resource Group, Ryan Bazeley, says it was an impactful way to build meaningful and authentic connections.



"When it comes to supporting the LGBTQ community, attending Pride is great. But, connecting means showing up the other 364 days a year."

The Pride #ShareLove platform also garnered the attention of the B.C. Chapter of the American Marketing Association -- receiving two Marketing Excellence Awards.



\$3.5 million

Contributed by TELUS to Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) organizations since 2000



Safeguarding against tsunamis



Preparing for tsunamis one pole at a time

Coastal British Columbia is a known earthquake and tsunami zone. Experts say the Haida Gwaii region will likely be the source of a large future event.

In 2016, TELUS collaborated with local First Nations and governments, the Province of B.C. and BC Hydro to design a program that will safeguard residents in the event a tsunami strikes their coast.

A unique paint job will be applied to TELUS and BC Hydro poles, indicating flood zones, safe zones and evacuation routes to guide the public to higher ground.

TELUS general manager for Northern B.C., Lance MacDonald, spoke to the importance of lending both our poles and funds to the program. "In the event of a tsunami, he says, "knowing where to safely gather is absolutely critical to keeping residents and visitors out of harm's way. We're guided by our philosophy to give where we live, and our team is proud to be part of this important collaboration."

The effort continues into 2017, and other B.C. communities at risk are also considering the program.

- "Essentially this information could eventually save lives in the event of a tsunami."
- Carmin Moore, Victoria University graduate student, Disaster and Emergency Management program



Using gamification for sustainability



2016 competition update – it's time to gamify our fleet

The Social Enterprise Competition, now in its third year, encourages TELUS employees to develop socially-focused business ideas that support our corporate sustainability strategy as well as encourage cross-functional team engagement and entrepreneurial spirit.

In 2016, more than 30 teams submitted incredible ideas fitting this year's theme, inspired by nature: creating a healthier, more sustainable future. Ten teams were selected based on the merit of their proposed ideas. They then worked with a vice-president coach to build their business plan and pitch their social venture concept to a judging panel of senior leaders from across TELUS. Three teams were selected to present their final pitch to an executive/ senior leader panel.

The top three finalists were:

- Fleet Complete Green Tracker: a gamification feature for the Fleet Complete platform to incent employees to reduce their carbon footprint and enable employers to support company sustainability efforts.
- DOT Cycling Wearable: a wearable that makes cyclists and their signals visible to car drivers, keeping them safe on the road and encouraging more people to commute by cycling.
- MarketWorks: a SaaS solution that drives waste diversion by unleashing the power of the connected workplace network and enabling employees to safely and conveniently trade and donate used goods online.

Fleet Compete Green Tracker was the winning concept. They will be awarded \$50,000 in seed capital and either a six-month full time secondment or a 12-month partial secondment to bring their social venture to life on behalf of TELUS.



winning teams receive this seed capital and the support to develop their venture



Monitoring health at home



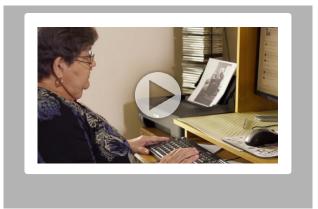
Technology makes home health monitoring a reality

Those that suffer chronic illness often have complex care needs that require ongoing care; but today, patients managing these conditions spend an average of less than ten hours a year with a healthcare professional. It's a scenario that makes it critical for a patient to be able to self-manage their condition.

Enter TELUS' *Home Health Monitoring*; it's integrated technology we've developed to connect health care practitioners with one another and patients to make self-management more efficient and collaborative.

The technology offers tools and additional support to manage health issues from the comfort of home. Patients are empowered to better self-manage chronic diseases by monitoring their blood pressure and other health markers and sharing this information electronically with healthcare providers. When tracking the patients' results on a regular basis, care teams can intervene before a health event occurs. So far, the technology is a success. "Our home health monitoring projects across British Columbia, Quebec and Ontario resulted in significant cost savings, less frequent patient emergency room visits and hospital readmissions, reports Paul Lepage, President of TELUS Health. Nearly 100% of patients reported being highly engaged in their health and had an improved quality of life."

Carolyn, a pulmonary fibrosis patient who struggles with her condition on a daily basis, feels comforted by the program. "The technology that has been created through TELUS has made my life better. I feel more secure because I know that I'm being monitored 24 hours a day."



Delivering health to remote communities



Transforming healthcare in remote communities

The Northwest Territories is an area twice the size of France, but has 42,000 residents spread out over 33 communities. Delivering health care to a region so vast and remote comes with a unique set of challenges.

TELUS Health is proud to be part of the solution in its partnership with the Health and Social Services department of the Government of the Northwest Territories (GNT). The GNT EMR (electronic medical record) Management System is transforming healthcare in remote communities - and its implementation in the community of Fort Resolution is revealing what's possible with the right technology and the spirit of collaboration.

When the EMR Management system went live in this community with a population of only 474, it unofficially became the first fully digital remote nursing station in the country, and a symbol of the future of healthcare delivery.

Jacqueline DeCoutere, Manager of Health Operations with Health and Social Services for two northern communities (Fort Resolution and the Lutsel K'e), says the impact of the new system is considerable – and the change in approach to medical records has improved the consistency of patient information, accuracy, communication and convenience.

"The shift to digital is creating a system with "one person, one record," where previously a patient might have had two, three or more records in different geographic locations. As a result, continuity of care is that much easier in a place where the population of medical providers can be somewhat transient."



"If we can do it in the Northwest Territories, we can do it anywhere." — Glen Abernethy, Minister of Health and Social Services, NWT

"Having the most up-to-date information on each patient in a single place is of great benefit to health practitioners and patients alike."

 Jacqueline DeCoutere, manager of health operations with Health and Social Services for two northern communities (Fort Resolution and the Lutsel K'e)



Right care, right place, right time



Technology is having an important impact on transforming healthcare by connecting doctors and other healthcare practitioners with one another and their patients in unique ways.

At TELUS, we understand the most effective way to improve patient care, is through patient-centered programs that encourage self-management.

Today, patients managing chronic conditions spend 5,800 waking hours managing their care each year, while typically spending fewer than 10 hours with a healthcare professional¹. This is where integrated technologies that support home and community-based care, such as home health monitoring, hold great promise. When technology empowers patients to actively manage their chronic conditions it allows for better, more efficient and meaningful collaboration between the individual and their health professional. Remote patient monitoring technology provides patients with the tools and additional support to manage their health issues from the comfort of their own home. Their information is shared with their physicians and other healthcare providers who virtually track the patients' results, allowing care teams to intervene before a health event occurs.

 Department of Health, Research evidence on the effectiveness of self-care support (DH, 2007), as cited in In Search of the Perfect Health System, Britnell, 2015

"Our home health monitoring projects across British Columbia, Quebec and Ontario resulted in significant cost savings, less frequent patient emergency room visits and hospital readmissions. Nearly 100% of patients reported being highly engaged in their health and had an improved quality of life."

- Paul Lepage, President of TELUS Health





Connecting Canadian youth



Technology, when integrated to the healthcare system, has the ability to improve the patient experience and dramatically impact a child's psychological well-being.

Social networks and technology are prominent in the lives of Canadian children and teens today, and young patients also want the opportunity to stay connected while receiving care.



10 years

Number of years the Upopolis social support platform has been helping young patients and families Developed by Kids' Health Links Foundation, in partnership with TELUS Health, Upopolis, an innovative social support platform and networking tool has been helping young patients safely and securely access kid-friendly medical content and stay connected to their families, friends and schools while undergoing care. The platform -- now in use for 10 years -- is a tool that not only explains medical terms in simple language, it also helps kids connect with other kids across Canada who are dealing with a medical diagnosis, and to family and friends at a time when they can feel very anxious and isolated.

By alleviating the stress, isolation and loneliness experienced by kids and teens while they are undergoing medical treatment, Upopolis is an incredibly powerful tool for pediatric health.

- "Keeping our hospitalized kids socially connected is an important therapeutic tool. Helping to make that happen safely and securely is a mission I feel privileged to lead."
- Basile Papaevangelou



Glossary

4G (fourth generation): As defined by the International Telecommunications Union, 4G is the next generation of wireless technologies, including HSPA+ and LTE, which offers a substantial improvement in speed over HSPA.

absenteeism rate: The figure reported includes absences related to illness or injury (excluding long-term disability) calculated as average number of productive days lost due to absenteeism per one FTE headcount.

absolute energy: Refers to a reduction in overall energy consumption not relative to anything else.

ADSL2+: An IP technology that allows existing copper telephone lines to carry voice, data and video and enables three simultaneous video streams into a home.

app: A program or application that delivers functionality to users on their mobile device, television or computer to address a specific need or purpose.

at home: Works from home on an established schedule for 90 per cent or more of the work week. The employee travels to a TELUS location for training, special meetings, etc.

best employers: Refers to the average engagement score of the top 50 companies in the Aon Hewitt database of 280 Canadian companies that took part in their annual Best Employers study/survey.

broadband: Telecommunications services that allow high-speed transmission of voice, data and video simultaneously at rates of 1.5 Mbps and above.

cause marketing: A type of campaign involving the cooperative efforts of a company and a non-profit organization resulting in cross promotional activities that drive charitable donations to the non-profit organization.

closed loop system: A "closed-loop" system is a system that can be closed through recovery, re-use or recycling, avoiding any waste.

Closer to the customer: a program that provides leaders with the opportunity to hear and learn from frontline employees. Spending a day in the shoes of customer-facing employees helps leaders make impactful changes to better serve customers and support our team.



conflict minerals: Refer to minerals mined in conditions of armed conflict and human rights abuses, notably in the eastern provinces of the Democratic Republic of the Congo.

Connections Honours Leaders of Excellence (CHLOE): profiles and celebrates exceptional women who have made a profound difference at TELUS or in their community, as well as leaders, men or women, who have made a significant contribution to the advancement of women at TELUS.

CO2e: Equivalent carbon dioxide is a measure for describing how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount or concentration of carbon dioxide (CO2) as the reference.

CRTC (Canadian Radio-television and Telecommunications Commission): The federal regulator for radio and television broadcasters, and cable-TV and telecommunications companies in Canada.

Crisis management team: A team consisting key leaders (i.e., media representative, legal counsel, facilities manager, business continuity coordinator), and the appropriate business owners of critical functions who are responsible for recovery operations during a crisis.

Customers First: A TELUS corporate priority focused on creating a best-inclass customer experience as measured by the voice of our customers.

deferral account: The Canadian Radio-television and Telecommunications Commission (CRTC) created the "Deferral Account" initiative in 2002 as part of a policy to encourage competition in residential phone services. The Commission required the incumbent telephone companies to assign to such accounts amounts equal to revenue reductions that would otherwise would have taken place due to the operation of the "price cap" regime under which telephone service rates were regulated at the time. The CRTC subsequently consulted with the public and industry for several years regarding what to do with the funds that had accumulated in these accounts, ultimately accepting TELUS' proposal that the majority of the funds be used to extend broadband Internet access to remote communities, with five per cent to be used to enhance services for people living with disabilities. The Commission ordered that the remainder of the funds be rebated to urban customers in 2010.

District Energy System: Created in partnership with TELUS and Westbank, the innovative District Energy System (DES) at TELUS Garden is one of the first systems in Vancouver to use waste heat from a neighbouring site to heat and cool a new development. Heat from the existing TELUS data centre and the new office tower's cooling systems are being harvested by the DES to provide heating and cooling for the office and residential towers, commercial spaces and amenities, and to heat domestic hot water for both towers. The DES is a major element of TELUS Garden's sustainability strategy and contributes to the development's approximate 80 per cent reduction in energy demand from conventional sources.

emergency alert messages: Issued by public officials to warn the public of imminent threats of life and could include notifications relating to dangers such as severe weather, floods, wildfires, industrial disasters and water contamination.

emission factors: The most common approach for calculating greenhouse gas emissions is through the use of emissions factors that are representative values relating the quantity of an emission with an activity associated with the release of that emission. Sources used include the <u>Canadian National</u> <u>Inventory report</u>

employee engagement: Engagement at TELUS is about strengthening the spirit and capturing the minds of employees in a way that contributes to their and our overall business performance. An engaged team is realized when employees truly believe in and are proud of the company they work for, and see a strong connection between their daily contributions and TELUS' success.

Employee Resource Group (ERG): are groups of employees who join together in their workplace based on shared characteristics, beliefs, perspectives or life experience.



e-waste: Electronic waste, e-waste, or e-scrap describes discarded electrical or electronic devices.

Fair process:

Formal, informal and social learning: formal includes: courses (online or in classrooms), conferences, forums and roadshows, accreditation and degree programs; informal includes: online books and research databases; webinars and webcasts; coaching and mentoring; and websites; social includes: blogs and wikis, micro-blogging, social networking, and video sharing.

Future Friendly Home (FFH): The TELUS Future Friendly Home is a collection of services designed to improve the lives of TELUS' customers.

HSPA+ (high-speed packet access): A 4G technology capable of delivering manufacturer-rated data download speeds of up to 21 Mbps (typical speeds of four to six Mbps expected).

Hydrovac: Hydrovac excavation is the use of a combination of high pressure water and vacuum pumping to excavate various types of soils. This truck-mounted system is commonly used to locate buried infrastructure, for trenching and to excavate holes for poles and piles.

Internet of Things (IoT): A network of uniquely identifiable end points (or things) that interact without human intervention, most commonly over a wireless network. These systems collect, analyze and act on information in real time and can be deployed to enable the creation of smart connected businesses, homes, cars and cities.

IOT Marketplace: an online space offering turn-key IoT solutions from cuttingedge innovators and industry-leading technology companies.

IP (Internet protocol): A packet-based protocol for delivering data across networks.

IPTV technology platform: Internet Protocol television (IPTV), is a system through which television services are delivered using the Internet protocol suite over a packet-switched network such as a LAN or the Internet, instead of being delivered through traditional terrestrial, satellite signal, and cable television formats. Optik TV is TELUS' IPTV based television service. Optik TV currently uses the Ericsson Mediaroom middleware platform for its service.

ISO 14001:2004: Is a family of standards related to environmental management that exists to help organizations (a) minimize how their operations (processes etc.) negatively affect the environment (i.e. cause adverse changes to air, water, or land); (b) comply with applicable laws, regulations, and other environmentally oriented requirements, and (c) continually improve in the above areas.

Lean principles: To maximize customer value while minimizing waste. Simply, lean means creating more value for customers with fewer resources. A lean organization understands customer value and focuses its key processes to continuously increase it.

LEED: Leadership in Energy and Environmental Design (LEED) is a rating system that is recognized as the international mark of excellence for green building in 150 countries.

LTE (long-term evolution): A 4G mobile telecommunications technology, capable of advanced wireless broadband speeds that has emerged as the leading global wireless industry standard. TELUS' 4G LTE coverage is currently capable of delivering manufacturer-rated peak download speeds of up to 75 Mbps (typical speeds of 12 to 25 Mbps expected).

Lost Time Accident (LTA): Under the Canada Labour Code, an LTA is any time lost as a result of an accident. Lost time begins on the day subsequent to the accident.

material issues: For a definition on materiality in the context of the GRI reporting framework, please see the <u>GRI website</u>.

Mbps (megabits per second): A measurement of data transmission speed, defined as the amount of data transferred in a second between two telecommunications points or within a network. Mbps is millions of bits per second and Gbps (gigabits per second) is billions.

performance development: Relates to the process of setting objectives, performance appraisals and reviews, and establishing career development plans (including formal, informal and social learning) to enhance the performance of individual employees. This is also one of the top five drivers of the Pulsecheck employee engagement score.

postpaid: Conventional method of payment for service where a subscriber is billed and pays for a significant portion of services and usage in arrears, after consuming the services.

Power Usage Effectiveness (PUE): The ratio of the total amount of power used by a computer data centre facility to the power delivered to computing equipment.

Pulsecheck: TELUS annual on-line employee engagement survey.

remediation: Removal of contamination at a site to levels that do not exceed regulatory standards.

roaming: A service offered by wireless network operators that allows subscribers to use their mobile phone while in the service area of another operator.

shared value: This involves creating economic value in a way that also creates value for society by addressing its needs and challenges. Businesses can achieve shared value creation by reconnecting company success with social progress. Shared value is not social responsibility, philanthropy, or even sustainability, but rather a new way to achieve economic success.

simultaneous substitution: A process in which local Canadian television signals are substituted over television signals from U.S. and more distant Canadian stations when the programming being aired on both channels is the same. This process sees that the programming rights purchased by local Canadian television stations are protected, which further allows them to invest in local news and Canadian programming.

SMB: This is an abbreviation for Small and Medium Business, a former TELUS customer segment.

spectrum: The range of electromagnetic radio frequencies used in the transmission of sound, data and video. The capacity of a wireless network is in part a function of the amount of spectrum licenced and utilized by the carrier.

TeamHub: A cloud-based technology that integrates TELUS' talent management functions to improve alignment of objective setting, performance management, career development, learning, compensation and succession management for the company.

TELUS Community Ambassadors: A large pool of current, former and retired employees who are passionate about volunteering in the communities where they live, work and serve.

TELUS International: Our international operations in the Philippines, United States, United Kingdom, Guatemala, El Salvador, Romania and Bulgaria.

TELUS leadership values: The TELUS team works together to deliver future friendly services and our values guide the way we work. They are: we embrace change and initiate opportunity; we have a passion for growth; we believe in spirited teamwork; we have the courage to innovate.

third wave services: embedded, intuitive computing in which our homes, vehicles, businesses, and personal devices have the ability to think, sense, understand, and respond to our needs.



VDSL2 (very high bit-rate digital subscriber line 2): Fibre-to-the-node technology offering typical data download speeds of five to 25 Mbps, which enables four simultaneous video streams into a home. These rates can be increased further by bonding multiple lines together.

vertical integration: The ownership or control by one entity of both programming services (such as conventional television stations, or pay and specialty services) and distribution services (such as cable systems or directto-home (DTH) satellite services). Vertical integration also includes ownership or control by one entity of both programming undertakings and production companies.

Wi-Fi (wireless fidelity): The commercial name for networking technology that allows any user with a Wi-Fi-enabled device to connect to a wireless access point or hotspot in high-traffic public locations.



Appendix

GRI guidelines

Profile

	Description	Page	UNGC Principle
1.1	Statement from CEO	12-18	Statement of support
1.2	Statement of key impacts, risks and opportunities	3, 12-18, 33, 49, 55, 66, 90, 87, 110, 117, 125	Principle 7, 8, 9

Organizational Profile

	Description	Page UNGC Principle
2.1	Name of reporting organization	TELUS
2.2	Major services	106 <u>telus.com/en</u>
2.3	Operational structure-main division, operating companies	about.telus.com/community/english/about_us/ company_overview telusinternational.com/about/locations
2.4	Location of headquarters	telusinternational.com/about/locations
2.5	Countries in which TELUS operates	telusinternational.com/about/locations
2.6	Nature of ownership	about.telus.com/community/english/investor_ relations/financial_documents/annual_information_ form_archive (See page 5)
2.7	Markets served	120 partner.telus.com/en/products, partner.telus. com/en/sectors, partner.telus.com
2.8	Scale of reporting organization	67-69, 127-130
2.9	Significant changes – openings, closings, structure	12-18 about.telus.com/community/english/ investor relations/shareholder %26 bondholder services/shareholder_services/mergers_and_ acquisitions
2.10	Awards received in the reporting period	31-32

Reporting parameters

	Description	Page	UNGC Principle
3.1	Reporting period	8-9	
3.2	Date of most recent previous report	8-9 The 201 published Jun	
3.3	Reporting cycle	Annual	
3.4	Contact point for questions	8	
3.5	Process for defining report content	3-4, 5-8, 143	
3.6	Boundary of report	3-4	
3.7	Limitations on scope of report	,	tations on the scope are disclosed within ve indicator.
3.8	Basis for reporting on ventures that can affect comparability from period to period	No applicable reporting	to our scope of
3.9	Decision to apply or not apply GRI principles	calculation an	easurement, base of d assumptions used in the respective e indicator
3.10	Explanations for restated information from previous reports	Any restateme within the Rep	ents are clearly stated
3.11	Significant changes in measurement methods	Throughout th	ne Report
3.12	Table identifying the location of the Standard Disclosures in the report	143	
3.13	Policy and current practice with regard to seeking external assurance for the report.	139-142	



Governance, commitments, and engagement

	Description	Page UNGC Principle
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	about.telus.com/community/english/ investor_relations/corporate_governance/ board_members_%26_committees
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	Chair of Board of Directors is not an executive officer on TELUS Board of Directors
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non- executive members.	about.telus.com/community/english/investor relations/corporate_team/board_of_directors
4.4	Mechanism for stakeholders to provide direction	3-4 about.telus.com/community/english/ investor_relations/corporate_team/board_ of_directors, about.telus.com/community/ english/investor_relations/corporate_ governance/contacts
4.5	Linkages between executive compensation and achievement of organizational goals	Executive Compensation discussed in Annual Report <u>about.telus.com/investors/</u> <u>annualreport2013/?lang=en</u> Information Circular page 52
4.6	Process for governance body to ensure conflict of interest avoided	21-24
4.7	Process for ensuring required expertise of Board members	about.telus.com/community/english/ investor_relations/corporate_governance/ board_members_%26_committees
4.8	Mission and value statements, codes of conduct, policies relevant to economic, social and environmental performance	12-18 , 21-24, 33, 49, 55, 66, 90, 91-92, 87, 110, 117, 125
4.9	Process of governance body for overseeing the organization's management of economic, social and environmental performance and status of implementations	24 <u>about.telus.com/community/english/</u> investor_relations/corporate_governance/ board_members_%26_committees

	Description	Page	UNGC Principle	
4.10	Process for evaluating the highest governance body performance with respect to economic, social and environmental performance	about.telus.com/community/english/investor relations/corporate_governance/board_ members_%26_committees/committees See pages 27-31 inclusive of 2014 Information Circular		
4.11	Discussion on whether and how the precautionary principle is addressed	21-24	Principle 7	
4.12	Externally developed economic, social and environmental charters or principles to which the organization prescribes or endorses	24-31, 143		
4.13	Memberships in associations (such as industry associations) and/ or national/international advocacy organizations in which the organization: Has positions in governance bodies; Participates in projects or committees; Provides substantive funding beyond routine membership dues; or Views membership as strategic	24-31, 56-57, 130-135		
4.14	Stakeholders engaged by the organization	6-8	Principle 10	
4.15	Basis for identification and selection of stakeholders	6-8, 55-56, 97-104 TELUS understands our stakeholder group as we have numerous feedback mechanisms. We are also active in benchmarking our industry where telecommunication stakeholders are widely agreed upon.	Principle 10	
4.16	Approaches to stakeholder engagement, including frequency of engagement by types and by stakeholder group	6-8	Principle 10	
4.17	Key topics and concerns that have been raised through stakeholder engagement and how the organization has responded to those key topics and concerns, including through its reporting	3-4, 6-8, 97-104	Principle 10	



Economic performance indicators

Manage				
	ement Approac	ch		
		Economic	125	
Econom	nic Performanc	e		
EC1	core	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and governments	56-57, 82-84, 127-130	
EC2	core	Financial implications and other risks and opportunities for the organization's activities due to climate change	40-42, 49	Principle 7
EC3	core	Coverage of the organization's defined benefit plan obligations	82-84, 127-130 Annual Report - Pe obligations (see See	
EC4	core	Significant financial assistance received from government	Government assista in the Consolidated Income and Other of Income as Other op Page 110.	Statements of Comprehensive
Market F	Presence			
EC5	add	Range of ratios of standard entry-level wage compared to local minimum wage at significant locations of operation	82-84	
EC6	core	Policy, practices, and proportion of spending on locally based suppliers at significant locations of operation	115-116, 130-135 com/community/er company_overview procurement_and_s management/supp	iglish/about_us/ /telus_partners/ supply_chain_
EC7	core	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operations	67-69	
Indirect	Economic Imp	pacts		

	Core/Add	Description	Page	UNGC Principle
EC8	core	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind and pro bono engagement	12-18, 34, 107-10	8, 130-135, 136
EC9	add	Understanding and describing significant indirect economic impacts, including the extent of impacts		



Social performance indicators

	Core/Add	Description	Page	UNGC Principle
Manag	ement Approac	h		
		Community Investment	55-56	
		Team Members	66-67, 88-89	
		Human Rights	24-31, 66-67, 110	Principles 1, 2, 6
Employ	rment			
LA1	core	Total workforce by employment type, employment contract, and region	67-69	
LA2	core	Total number and rate of employee turnover by age group, gender, and region	88 TELUS does no region.	t break down by
LA3	add	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	82-84	
Labour	/Management F	Relations		
LA4	core	Percentage of employees covered by collective bargaining agreements	69	Principles 1, 3
LA5	core	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	TELUS does not include this in our disclosure but this information is covered in collective agreements	Principle 3
Occupa	ational Health ar	nd Safety		
LA6	add	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	88-89 TELUS does not report this statistic.	Principle 1

	Core/Add	Description	Page	UNGC Principle
LA7	core	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region	88-89 TELUS have tailored their formula as follows: Totals missed days over the period [defined as (Non-Occupational hours + Occupational hours absence hours) / 7.5 hours] divided by totals FTE headcount [defined as (Available hours + Overtime hours) / 1950].	Principle 1
LA8	core	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	85-86 Employee and Family Assistance Program	Principle 1
LA9	add	Health and safety topics covered in formal agreements with trade unions	3-4 TELUS does no significantly material.	ot deem this to be
Training	and Education	ſ		
LA10	core	Average hours of training per year per employee by employee category	75, 78-82	
LA11	add	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	78-82	
LA12	add	Percentage of employees receiving regular performance and career development reviews	75	

	Core/Add	Description	Page	UNGC Principle
LA13	core	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	71	Principles 1, 6
LA14	core	Ratio of basic salary of men to women by employee category	82-84 TELUS discl but do not report on women by employee	ratio of men to
	add	Employee engagement: percentage of employees expressing job satisfaction	73	
Social F	Performance Hu	man Rights		
HR1	core	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	113-114 In 2011 TELUS made it mandatory for all new contracts to agree to our <u>Supplier Code</u> of <u>Conduct</u> which has human rights covered.	Principles 1, 2, 3, 4, 5, 6
HR2	core	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	113-114 In 2011 TELUS made it mandatory for all new contracts to agree to our <u>Supplier Code</u> of <u>Conduct</u> which has human rights covered. in 2013 we launched our Supplier Risk Assessment screening and that is currently ongoing.	Principles 1, 2, 3, 4, 5, 6
HR3	add	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	91-92	Principles 1, 2, 3, 4, 5, 6
Non-Dis	scrimination			

HR4coreTotal number of incidents of discrimination and actions taken92, 95Freedom of Association and collective Bargaining members have the micropial to reedom of association and collective bargaining may be at significant risk, and actions taken to support these rights27 All TELUS team members have the no in UNGC commitment principlesChild LaborVogerations identified as having significant risk, and actions taken to support these rights21 All TELUS team members have the no ur UNGC commitment principle 3Child LaborVogerations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor and this covered in our UNGC commitmentsPrinciple 5 significant risk for incidents or child labor, and measures taken to contribute to the sing right in significant risk for incidents of child labor, and measures taken to contribute to the sugnificant risk for incidents or complex principle 4 sugnificant risk for incidents or complex principle 5 assessment in our UNGC commitmentsPrinciple 5 sugnificant risk for incidents of course having a Supplier Risk Assessment in our UNGC commitmentsPrinciple 4 supply chain to better understand the riskForceed and Complexory labor coreOperations identified as having significant risk for incidents of toricidents of toricidents of toricidents of tored or compulsory labor, and measures to contribute to reedom or compulsory labor, and measures to contribute to reedom or compulsory labor and measures to contribute to reedom or compulsory labor and measures to contribute to reedom or compulsory labor and measure		Core/Add	Description	Page	UNGC Principle
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for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	Anti-Co	ompetitive Beha	vior		
Compliance	SO7	add	for anti-competitive behavior, anti-trust, and monopoly	Report Section 10.9	
	Compli	ance			

	Core/Add	Description	Page	UNGC Principle
SO8	core	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	43-48, 117-124 Th TELUS' Annual Rep Litigation and Legal not disclose financia confidential. Amound disclosed as deeme	but TELUS not I values as it is t of legal actions not
Socia	al Performai	nce: Product Responsibil	ity	
Custor	ner Health and	Safety		
PR1	core	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	TELUS does not have mechanism in place nor have we assessed or reported on lifecycle stages or health and safety of our products. However, our products and services are approved by all legal/governing bodies relevant to the product or service that we provide	
PR2	add	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes		
Produc	ots and Service	Labeling		
PR3	core	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements	TELUS does not discuss this in the Report, however our products and services adhere to all laws and labelling requirements	
PR4	add	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	43-48 This is cove Annual Report Secti and Legal	

	Core/Add	Description	Page	UNGC Principle		
PR5	add	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	97-104, 107-108, 109			
Market	Marketing Communications					
PR6	core	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	21-24, 63, 113-115			
PR7	add	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes				
Custon	ner Privacy					
PR8	add	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	94			
Compliance						
PR9	core	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	43-48 This is cover Annual Report Section and Legal. TELUS di environmental comp not have significant for compliance concern and use of products	iscloses our liance. We do ines for non- ing the provisions		

Environmental performance indicators

	Core/ Add	Description	Page	UNGC Principle
Manage	ement Approach			
		Environment	33-34, 40-41, 49	Principle 7
		Supply chain	110	Principle 1,7,8,9
Material	S			
EN1	core	Materials used by weight or volume	41 Other than our paper purchase, this metric is not material to our business operations as we are not a manufacturer, thus it is not reported on	
EN2	core	Percentage of materials used that are recycled input materials	This metric is not material to our business operations as we are not a manufacturer. However, TELUS' paper purchasing policy requires use of a minimum of 30% PCR.	
Energy				
EN3	core	Direct energy consumption by primary energy source	49-52	Principle 7, 8
EN4	core	Indirect energy consumption by primary source	49-52	Principle 7, 8
EN5	add	Energy saved due to conservation and efficiency improvements	49-52	Principle 7, 8
EN6	add	Initiatives to provide energy- efficient or renewable energy based products and services, and reduction in energy requirements as a result of these initiatives	TELUS does not currently take part in renewable energy project as our concentration is on in-house reductions	Principle 7, 8, 9
EN7	add	Initiatives to reduce indirect energy consumption and reductions achieved	36, 49-52	Principle 7, 8
Water				
EN8	core	Total water withdrawal by source	42	
EN9	add	Water sources significantly affected by withdrawal of water	3-4 TELUS does not deem this to be significantly material.	

	Core/ Add	Description	Page	UNGC Principle
EN10	add	Percentage and total volume of water recycled and reused	TELUS does not r	measure this
Biodive	rsity			
EN11	core	Land owned, leased, managed in biodiversity rich habitats	3-4 TELUS does not deem this to be significantly material.	
EN12	add	Significant impacts on biodiversity	TELUS does not deem this to be significant as we do not undertake construction in biologically sensitive areas or do we have significant impact on biodiversity	
EN13	add	Habitats protected and restored	3-4 TELUS does not deem this to be significantly material.	
EN14	add	Strategies, current actions and future plans for managing impacts on biodiversity	3-4 TELUS does not deem this to be significantly material.	
EN15	add	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	3-4 TELUS does not deem this to be significantly material.	
Emissio	ons, Effluents and	d Waste		
EN16	core	Total direct and indirect GHG emissions by weight	52-54	Principle 7, 8
EN17	core	Other relevant indirect GHG emissions by weight	52-54	Principle 7, 8
EN18	add	Initiatives to reduce GHG emissions and reductions achieved	49	Principle 7, 8, 9
EN19	core	Emissions of ozone depleting substances by weight	52-54	Principle 7, 8
EN20	core	NO, SO and other significant air emissions by type and weight	52-54	Principle 7, 8
EN21	core	Total water discharge by quality and destination	3-4 TELUS does not report on this as it not material to our operations	
EN22	core	Total weight of waste by type and disposal method	40-41	Principle 7, 8
EN23	core	Total number and volume of significant spills	44-45	Principle 8

	Core/ Add	Description	Page	UNGC Principle
EN24	add	Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annex and percentage of transported waste shipped internationally	3-4 TELUS does not deem this to be significantly material.	
EN25	add	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	3-4 TELUS does not deem this to be significantly material.	
Product	ts and Services			
EN26	COre	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	34-39, 46	Principles 7,8,9
EN27	core	Percent of products sold and their packaging materials that are reclaimed by category	TELUS does not currently have a system in place to track or report this	
Complia	ance			
EN28	core	Monetary value of significant fines and total number of non- monetary sanctions for non- compliance with environmental laws and regulations	43	Principle 8
Transpo	ort			
EN29	add	Significant environmental impacts of transporting other goods and materials used for the organization's operations and transporting members of the workforce	3-4 TELUS does not deem this to be significantly material.	
Overall				
EN30	add	Total environmental protection expenditures and investments by type	3-4 , 34-35, 40-41	, 43-48, 49



United Nations Global Compact



The United Nations has developed a global agreement, or compact, to help businesses align their operations and strategies with 10 universally accepted principles in the areas of human rights, labour, the environment and anti-corruption. TELUS supports the compact and we align our report with its principles. We became a signatory of the UNGC in 2010 and continued our support throughout 2016.

Communication on Progress

Embracing global sustainability principles

As a patron member of the Global Compact Network Canada (GCNC), TELUS continues to demonstrate our commitment to the Principles of the United Nations Global Compact (UNGC). The GCNC offers Canadian business and non-business sectors a unique opportunity to learn and exchange best practices in corporate responsibility within the network and amongst global peers. In doing so, we build the capacity of the Canadian corporate sector, empowering companies to embrace the UNGC's principles within their national and global operations.

Specifically in 2016, TELUS presented during several webinars hosted by the GCNC, on topics such as sustainability reporting and supporting Sustainable Development Goals.

Human rights

UNGC Principle 1: Businesses should support and respect the protection of international human rights within their sphere of influence.

TELUS has a long-standing commitment to respecting and protecting human rights as outlined in our Code of Ethics and Conduct, and reflected in our respectful workplace, employment equity and diversity practices. The Code ties together policies outlining expected business behaviour and provides guidelines for the standards of ethical conduct expected of all employees, including officers and members of the TELUS Board of Directors. The Code, which is updated and published annually, formalizes our commitment to safeguard internationally proclaimed human rights. Further details about our expectations are provided for employees in our Respectful Workplace policy.



93%

Percentage of TELUS contractors that completed TELUS' online integrity training course in 2016

Each year, TELUS requires all employees and contractors to complete an online Integrity training course that outlines key aspects of the Ethics, Respectful Workplace, Security and Privacy policies. The 2016 course was completed by 100 per cent of employees by March 9, 2017 and 93 per cent of contractors by December 31, 2016. We have also implemented specific training based upon our Respectful Workplace policy.



In addition to complying with the Code of Ethics and Conduct and Respectful Workplace policy, our international operations follow local legislation that protects human rights in all jurisdictions where we operate.

TELUS has several processes in place to further monitor our human rights practices:

- Collective agreements that set out the steps of grievance and arbitration processes available to employees
- An internal complaints procedure about respectful workplace practices that are investigated and addressed by the Respectful Workplace Office, and reported quarterly to the Human Resources and Compensation Committee of TELUS' Board of Directors
- The TELUS EthicsLine, which provides an opportunity for anyone to anonymously and confidentially ask questions, request support or make a good faith report about a real or perceived violation of the Code of Ethics and Conduct, government law or regulation, questionable business practices or accounting/auditing matters.

TELUS' Supplier Code of Conduct sets out social and environmental practices that our business partners must adhere to. The Code aligns to the 10 principles of the UNGC. We expect our suppliers to:

- Comply with applicable laws and regulations wherever they operate
- Follow recognized standards of behaviour
- Advance social and environmental responsibilities
- Operate consistently with TELUS' commitment to being a leading corporate citizen
- Make certain their affiliates, suppliers, employees and contractors perform obligations to TELUS that are consistent with the ethical standards set out in this Code.

In 2016, we began the process to draft a specific Human Rights Policy, which we hope to publish in early 2018.

UNGC Principle 2: Businesses should make sure that they are not complicit in human rights abuses.

TELUS' focus on respect in the workplace is an indication of our commitment to nurturing a positive, professional and safe working environment and is a cornerstone of our leadership values and culture. When employees respect each other, we improve work relationships, enhance teamwork and increase productivity. In support of this priority, TELUS launched the Respectful Workplace Office in 2004, which oversees our Respectful Workplace policy and works to resolve any issues identified through our processes.

Each year, key points from TELUS' Respectful Workplace policy are covered in our mandatory Integrity training course. In addition, all newly hired employees are provided training on the policy. Our overriding goals are to:

- Help employees understand the law and what is considered acceptable behaviour at work
- Be sure employees are aware of the protections and processes available to them should an inappropriate workplace issue arise.

Complaints filed by our employees with the Canadian Human Rights Commission are analyzed to determine if there are any internal practices that are causing concern and require attention. In our international locations, we comply with regulatory laws and requirements for each jurisdiction.

We last updated our Supplier Code of Conduct in 2014, and expect our suppliers to evaluate the origin or source of their materials throughout their supply chains to reasonably assure that they have not been obtained in any illegal or unethical manner. In particular, our suppliers must have a policy to reasonably assure that the tantalum, tin, tungsten and gold, or other rare earth minerals in their products, do not directly or indirectly finance or benefit armed groups that are perpetrators of human rights abuses in the Democratic Republic of the Congo or an adjoining country. Suppliers are expected to exercise due diligence on the source and chain of custody of these minerals and make their due diligence measures available to TELUS upon request. In 2016, we began another review of our Code and intend to publish an update in 2017.

Conflict Minerals

In 2012, the Securities and Exchange Commission (SEC) finalized reporting requirements to disclose the use of designated minerals and metals mined in the Democratic Republic of Congo and adjacent countries. Cassiterite (a source of tin), wolframite (a source of tungsten), columbite-tantalite (or coltan, a source of tantalum) and gold are often referred to collectively as conflict minerals. Such minerals may be used in electronic and communications equipment that we use or sell. As a signatory of the UNGC, we are committed to preventing human rights abuses that could result from our operations.

These SEC reporting requirements for conflict minerals, mandated by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, came into effect for our 2013 annual reporting cycle. Through the establishment of an internal Conflict Minerals Working Group, we have performed our due diligence and have met the reporting requirements.

Labour standards

UNGC Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Bargaining Unit

Our collective agreements contain mutually agreed upon adjustment processes that include:

- Redeployment to another position based on seniority/qualifications
- Wage protection/re-training opportunities
- Paid relocations
- Early retirement or voluntary severance options for employees affected by organizational change
- Advance notice periods for employees and the union in cases of management initiated workplace changes. The notice periods are different (from a minimum of three weeks to a maximum of 12 months) in each collective agreement and vary based on the nature of the operational issue, and in some cases an employee's seniority.

TELUS upholds our employees' right to freedom of association at the workplace, and maintains a constructive dialogue with all labour unions and work councils active in our operations.

TELUS employees across Canada are represented by four different unions:

- Telecommunications Workers Union, United Steelworkers Local 1944
 (TWU)
- Syndicat québecois des employés de TELUS (SQET)
- Syndicat des agents de maîtrise de TELUS (SAMT)
- B.C. Government and Services Employees' Union (BCGEU).

TELUS and the TWU achieved a new five-year collective agreement in November, 2016. The renewal agreement, which was ratified by more than 68 per cent of the members who voted, expires on December 31, 2021. The contract with the TWU covers 9,482 employees across Canada, predominantly located in B.C., Alberta, Ontario and Quebec. Our contract with the TWU is the only nationwide collective agreement in the wireless and wireline telecommunications industry.

We also have two major collective agreements in the province of Quebec. The larger of the two is with SQET, which covers 757 trades, clerical and operator services employees and the other is with SAMT, which covers 631 management and professional employees. TELUS engaged in advance negotiations with each union resulting in an expedited bargaining process that produced renewal agreements three-months and 12-months prior to the expiration of the current agreements with the SAMT and the SQET respectively. The renewal agreement with the SAMT was ratified by 95 per cent of the members who voted and is effective from April 1, 2017 to March 31, 2022. Our new contract with the SQET, which was ratified by 81 per cent of the members who voted, comes into effect on January 1, 2018, and expires on December 31, 2022.

Our subsidiary, TELUS Sourcing Solutions Inc., has 64 employees covered by a collective agreement with the BCGEU. The collective agreement was successfully renewed in the spring of 2016. The new contract is effective May 1, 2016, and expires on April 30, 2019.

Union recognition through consultation

We strongly believe in building respectful relationships with the bargaining agents representing our employees. Communication with the unions is recognized as an important element in nurturing these relationships. To this end, we have negotiated provisions in our collective agreements with the TWU and the SQET that establish formal structured consultation committees and processes.

In addition to the regular day-to-day information sharing with unions, in 2016, there were a number of joint consultation sessions at the senior leadership and executive level to discuss matters of mutual interest. In the new collective agreement with the TWU, we have expanded our commitment to consultation through three new formalized joint union–management consultation processes concerning:

- Workplace accommodation
- General workplace issues
- The grievance and arbitration process.

Additionally, TELUS provides advance notice to our unions and affected employees regarding operational changes such as contracting out, technological change and mergers, acquisitions and divestitures. Notice requirements of such changes are contained in each of the collective agreements.

Board of Directors diversity representation

Encouraging diversity on our Board and its committees is essential to our success, as it provides a broader range of perspectives and experience and better reflects the communities and customers we serve. TELUS' diversity objective now states that diverse members will represent not less than 30 per cent of the Board's independent members by May 2017, with a minimum of each gender representing 25 per cent of such members by May 2017, increasing to not less than 30 per cent of such members by 2018. Currently, diverse nominees (five nominees) represent 42 per cent and female nominees (three nominees) represent 25 per cent of the independent directors proposed for election at our next annual meeting.

UNGC Principle 4: The elimination of all forms of forced and compulsory labour.

The following codes and policies guide our workplace practices and provide assurance TELUS does not use or support forced labour at any of our operations:

- The TELUS Code of Ethics and Conduct states that employees have the right to a safe and violence-free workplace, and violence in the workplace is considered a criminal issue
- A Violence Prevention in the Workplace Investigation and Reporting policy
- Our Supplier Code of Conduct addresses forced labour and does not allow the use of forced labour in our supply chain.

UNGC Principle 5: The effective abolition of child labour.

TELUS does not use or support child labour at any of our operations. In fact, the TELUS Supplier Code of Conduct does not allow the use of child labour anywhere in our supply chain.

TELUS routinely monitors developments with respect to the International Labour Organization (ILO) conventions 138 and 182 with respect to child labour, particularly in countries in which we do business.

UNGC Principle 6: The elimination of discrimination in respect of employment and occupation.

The TELUS Code of Ethics and Conduct states that every employee has the right to a workplace that is free from discrimination and harassment. We place great importance on maintaining a culture that encourages the achievement of our business objectives in a manner consistent with our values. To promote company-wide awareness of this issue, all employees must complete annual online Integrity training as a condition of employment as noted above under Principle 1.

TELUS recognizes an inclusive environment that values diversity of thought, background, skills and experience facilitates a broader exchange of perspectives. TELUS' Diversity and Inclusiveness Council has developed and implemented initiatives including providing diversity training to TELUS employees and assisting with the establishment of employee resource groups. These resource groups include:

- Abilities Network: for employees and family members with varying abilities
- Alliance: for active and retired military personnel and the families who support them
- Connections: our women's network
- Eagles: our First Nations network
- Mosaic: for multicultural employees
- Spectrum: our network for our lesbian, gay, bisexual, transgender and allies.





93%

Percentage of TELUS Employees that agree or strongly agree that TELUS respects team members regardless of demographic characteristics and abilities.

Results from our annual employee survey in 2016, indicate that 93 per cent of employees agree or strongly agree that we have a work environment that embraces diversity and accepts individual differences (e.g., gender, race, ethnicity, sexual orientation, religion, age).

To learn more about diversity and inclusiveness at TELUS, please visit our website.

Environment

UNGC Principle 7: Businesses should support a precautionary approach to environmental challenges.

Responsibility for managing TELUS' environmental footprint is shared by senior leaders from across our Company who have specific areas of expertise such as risk management, network operations, real estate operations, supply operations, procurement and our environmental consultants. The Corporate Governance Committee of TELUS' Board of Directors receives quarterly reports about TELUS' ongoing environmental risk management activities.

Following the successful certification of our environmental management system (EMS) to the ISO 14001 standard in 2015, TELUS completed the required maintenance audits to maintain certification in 2016. The globally recognized ISO 14001 standard has recently been updated (ISO14001:2015) and TELUS will be working to adapt our current system to the new version through 2017. Maintaining this ISO standard also requires continual improvements to our environmental management processes, and TELUS is committed to identifying even more ways to better our performance.

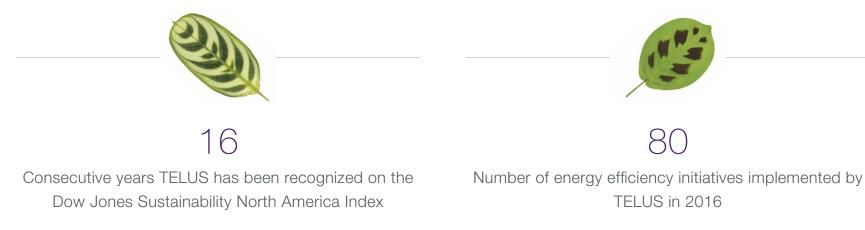
In 2017, we will complete our fuel storage risk assessment (required for our back-up power systems), and begin work to replace/retrofit older systems with updated secondary containment and remote spill monitoring. This assessment also includes a review of alternative options to fuel storage including solar and wind-generated power.

TELUS established a Climate Change Strategy in 2010, with a goal of reducing absolute energy consumption by 10 per cent and realizing a 25 per cent reduction in greenhouse gas (GHG) emissions by 2020 based on 2010 levels. We monitor and report our progress annually and these goals form a component of the Sustainability Index in our Corporate Scorecard, the results of which impact the variable component of our employees compensation.

UNGC Principle 8: Undertake initiatives to promote greater environmental responsibility.

The strength of our environmental and sustainability culture at TELUS is the result of over two decades of dedicated work in this field. Since we published our first environmental report in 1992, we have continued to evolve our environmental management and sustainability program to support what we believe is a best-in-class sustainability program. Our disclosure now aligns to the Global Reporting Initiative G4 guidelines and in 2016, we were named to the Dow Jones Sustainability World Index (DJSI) and to the DJSI North American Index for the 16th consecutive year. The Environmental Management section of this report details initiatives that promote greater environmental responsibility, including training, auditing and ongoing assessment of our environmental performance and compliance. **UNGC Principle 9**: Encourage the development and diffusion of environmentally-friendly technologies.

TELUS develops and implements technology solutions that support the principle of moving ideas instead of people. Our TELUS Technology Labs enable testing, trialing and proof-of-concept of emerging technologies and services. Associated with the labs, TELUS Innovation Centres across Canada showcase our current and potential future networks and services. When we implement environmentally-friendly technologies internally, we not only support our own sustainability goals, we provide benefits to society as a whole by reducing resource use and GHG emissions. In 2016, we implemented 80 energy efficiency initiatives, resulting in the elimination of 44.1 GWh of annualized energy consumption and \$1 million in savings. Externally, we offer videoconference and teleconference technologies for our customers and partners, which reduces the need for travel, providing a reduced carbon footprint.





Key energy efficiency program highlights include:

- \$89 million cumulative operational costs avoided from program inception
- 4.6 GWh of improved efficiency of power and cooling systems in buildings
- 29 GWh eliminated through legacy equipment turndowns and server/ storage decommissioning
- 10.5 GWh of reduced energy consumption from real estate consolidation, energy efficiency programs and our Work Styles program implementation.

As part of our balanced approach to addressing climate change, in 2016, we purchased 23 million kWh of EcoLogoTM certified renewable energy credits in Alberta, which accounts for 18,330 tonnes of CO2e.

Additionally, our Work Styles program, Green Building initiatives and many of our TELUS Health solutions support this principle.

Anti-corruption

UNGC Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Bribery and corruption is one of the primary obstacles to economic development. It undermines the rule of law, weakens trust in public institutions and challenges democratic principles. Bribery and corruption can exist in any society, rich or poor, creating a need for continued vigilance by regulators, law enforcement agencies and industry leaders.

Risks from bribery and other forms of corruption are a concern for companies both in Canada and abroad. Companies may be confronted with demands for bribes, challenged by competitors acting corruptly or faced with employees violating their codes of conduct. TELUS mitigates these risks by implementing and enforcing a robust Anti-Bribery and Corruption Compliance Program that is supported by clear policies, processes and controls. Since 2012, we have addressed anti-bribery and corruption risks through a risk-based framework that includes:

- Senior management involvement and support: senior leaders across TELUS are responsible and accountable for making sure the Anti-Bribery and Corruption Compliance Program is effectively implemented and consistently monitored. Senior executives set the tone to create a culture where bribery is unacceptable.
- Corporate compliance policies and procedures: a specific Anti-Bribery and Corruption Policy was rolled out to the TELUS team after being approved by the TELUS Board of Directors. Our Anti-Bribery and Corruption Compliance Policy provides further clarity and guidance for employees and third parties engaged by TELUS, and supplements other guidance in the TELUS Code of Ethics and Conduct, the Supplier Code of Conduct, and our Code of Conduct for Business Sales Activities.
- Training and education: our annual Integrity training highlights our zero-tolerance approach to bribery and corruption. Further training continues to be provided through our Business Sales Code of Conduct and Anti-Bribery and Corruption programs.
- Incentives and consistent disciplinary procedures: annual performance objectives were created for employees responsible for implementing and monitoring the compliance program.
 Failure to act in accordance with the Anti-Bribery and Corruption Policy may subject employees to disciplinary action, which may include dismissal.