# DIGITAL LIKE NEVER BEFORE





# **ABOUT THE COVER**

Engaging every generation

Enabling positive change

Empowering creative interaction

This is what PLDT does, using technology to power the future for all.

PLDT embraces change towards progress and development.

Maximizing potential and strengths. Building on a tradition of innovation

Creating disruptions and facing the challenges of the future today

With energy passion, and commitment to do better everyday.

# **ABOUT THE REPORT**

PLDT's ceaseless pursuit of its core sustainability strategy is evidenced by its continuing digital transformation and constant communication with all stakeholders.

This Sustainability Report (SR), which follows the inaugural one last year, builds on the features of that first report and now covers the sustainability performance of the PLDT Group – the PLDT company itself, its wireless subsidiary Smart Communications, and its digital innovation companies Voyager Innovations and ePLDT. The SR will henceforth use the term PLDT Group to refer to these four companies.

Workshops and briefings on prescribed reporting protocols and procedures were conducted as guide to all concerned departments for submitting their monitoring data and summary reports to the SR project team.

The team endeavored to produce a more extensive report this year, including more data from network operations, to reflect the PLDT Group's commitment to continuously improve its sustainability performance. This report was duly subjected to an independent external assurance process from SGV & Co. (see page 82 for more details). The limited assurance process allows stakeholders a high degree of confidence in the merit and reliability of the selected assured information.

Reporting on the period from January I to December 31, 2016, this document covers the highlights of issues defined as material to the PLDT Group's stakeholders. This report contains Standard Disclosures from the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines.

This Sustainability Report was prepared as an adjunct to the PLDT Group's comprehensive Annual Report which has been distributed to stakeholders and is also available online at www.pldt.com.

For any concerns or feedback on the 2016 Sustainability Report, please contact:

PLDT Financial Reporting and Controllership PLDT Corporate Office Ramon Cojuangco Building Makati Avenue, Makati City I 200, Philippines Telephone: +63 2 8168534 Email: pldtfinrepcon@pldt.com.ph

PLDT Corporate Governance Email: corpgov@pldt.com.ph



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# 2016 SUSTAINABILITY PERFORMANCE AT A GLANCE

**ECONOMIC** 

REVENUES
172,507
Direct economic value generated

**Economic value distributed:** 

129,804

Economic value retained

42,703

Figures in Millions (Philippine Peso)

69,179

**Operating costs** 



19,928

Employee wages and benefits



10,747

Payments to



29,499

Payments to providers of capital



investments

Community

451



PhP42.8 billion

**Actual CAPEX for 2016** 

**DIVIDENDS** 

60%

2016 core earnings



Data and broadband revenues as growth drivers:

10%

`9%

PLDT Enterprise

20%

: Mobile Data



TOTAL

14,451

People employed



**GRADUATES** 

10,019

PLDT-led training courses



**GRADUATES** 

6,068

PLDT Infoteach Outreach Program



**TEACHERS** 

16,000

Given training under Gabay Guro

# 3 school buildings turned over in 2016, under the Balik Baterya Program:

- Banquerohan Elementary School, Legazpi City
- Colegio de Sta. Rita, del Gallego, Camarines Sur
- Roxas City School of Philippine Craftsmen, Roxas City



# **ENVIRONMENTAL**



**ELECTRICITY USED** 

614,930

**Tonnes CO2e** 

mWh



**FUEL CONSUMED** 

16,091

**Cubic Meters** 



WATER CONSUMED

660.265

**Cubic Meters** 



WORTH OF ULAB (USED LEAD-ACID BATTERIES) DONATED

PhP48 Million

BY PLDT TO DATE

PhP25 Million

**BY SMART TO DATE** 



**GREENHOUSE GASES EMITTED** 



# MESSAGE FROM THE CHAIRMAN. PRESIDENT, AND CEO

"Sustainability is our past, present, and future."



It is my great pleasure to present to you the 2016 Sustainability Report of the PLDT Group. We have taken to heart our commitment to our stakeholders — that we shall be accountable and transparent in sharing our sustainability journey with all who care about the organization and its future.

In 2016, the PLDT Group took major steps in the pursuit of digital transformation. This is an evolution that touches every aspect of our organization, including our sustainability strategy.

Transforming ourselves into the country's leading communications and digital services company allows us to promote social digital inclusion. It enables us to offer more and more people access to the benefits of the digital life. At the same time, as we operate more energy-efficient digital networks, our services also empower people to reduce their own environmental footprint as they pursue their own activities.

This report shows we are making progress in our sustainability journey and are focused on delivering the best possible triple bottom line of economic, social, and environmental results. This year, we have taken the next step of having this report go through the assurance process which we believe will further strengthen our monitoring and reporting protocols.

It is noteworthy that the Sustainability Report team has expanded the publication's coverage to include not just PLDT and Smart, but Voyager and ePLDT as well. Also noteworthy is the inclusion of more data from network operations. We still have a long way to go, but I am confident that as we move forward, the Sustainability Report will become a progressively more useful tool for Management, shareholders, and other stakeholders of the company.

Manuel V. Pangilinan



# **WE ARE PLDT**

First awarded a franchise to operate in 1928, PLDT today is the leading telecommunications and digital services provider in the Philippines. PLDT is listed on the Philippine Stock Exchange (PSE: TEL), and its American Depository Shares are listed on the New York Stock Exchange (NYSE: PHI). It has one of the largest market capitalizations among publicly listed companies in the Philippines.

## **OUR ORGANIZATION**





Through its principal business groups – fixed line, wireless, and others – PLDT offers a wide range of telecommunications and digital services across the country's most extensive fiber optic backbone, fixed line, and cellular networks.

The fixed line business is represented by the following core brands: PLDT Home, the country's leading broadband and digital services provider that allows seamless, simultaneous streaming for all devices at home with its Fibr, DSL, Ultera, and Telpad services; PLDT SME Nation which provides entrepreneurs with technologies suited for their needs – from business-enabling voice, broadband, and mobility solutions, to more sophisticated enterprise-level ICT (information and communications technology) and cloud services; PLDT ALPHA Enterprise, PLDT's corporate business group, which is the preferred and trusted ICT partner of Tier-I enterprises in the country; and PLDT Global which provides high-quality value-added and traffic wholesale services through its points of presence located worldwide.

The wireless business is principally led by wholly owned subsidiary Smart Communications, Inc. along with Digital Mobile Philippines, Inc. Together they serve over 64.5 million cellular and broadband subscribers as of end-2016.

Smart has built a reputation for innovation, having introduced world-first wireless offerings such as Smart Money, Smart Load, and Smart Padala. Smart offers 3G, HSPA+, and LTE services, while its Smart Satellite service provides communications to the global maritime industry.

The price of such leadership is continuous evolution and innovation, and PLDT acknowledges this by cultivating an innovation ecosystem that harnesses the potential of a digitally connected world through its subsidiaries Voyager and ePLDT.

The Voyager group — comprised of Voyager Innovations, PayMaya Philippines, Takatack Technologies, and FinTqnologies — serves as the digital innovation arm of PLDT and Smart. Voyager builds mobile-first platforms that address the biggest challenges common to emerging markets such as access to finance, commerce, and internet.

Today, over 10 million Filipinos are enabled by the Voyager group's various digital financial services. More than 11 million people are using its various data access and messaging solutions. Its payments and digital commerce platforms, meanwhile, are powering thousands of small, medium, and big enterprises.

Then there's ePLDT, the industry-leading enabler of digital enterprise solutions in the Philippines. ePLDT delivers best-in-class digital business solutions utilizing purpose-built cloud and data center facilities, connected through the PLDT Group's resilient, nationwidest network infrastructure. ePLDT boasts of a comprehensive portfolio of Cyber Security solutions that combine robust technology, expertise, and processes to promote business resiliency. This, and the company's numerous other innovative endeavors, are testament to ePLDT's brand promise of "Enabling Success."

# THE DAWN OF A NEW DIGITAL AGE

"We have embarked on a digital pivot to enable us to serve the increasing needs of our people's digital lifestyle and the country's growing digital economy.

"We're committed to transforming our business.
We're committed to providing great customer experiences. We're committed to our vision of leading and inspiring Filipinos to create a better tomorrow."

Manuel V. Pangilinan

In 2016, PLDT reached its 88th year of service in the Philippines, and it did so while maintaining its role as the leading telecommunications and digital services provider in the country.

Instead of resting on its laurels, PLDT began its massive transformation into a digitally driven multimedia communications company.

This major organizational shift is seen to take three years to completely execute. It is rooted in a long-term sustainability strategy of future-proofing the company through judicious investments in infrastructure and organizational development.

In line with all these, PLDT and Smart unveiled a fresh brand identity in June 2016 — with convergent corporate logos that powerfully symbolized a culture of creative synergy to serve individual and enterprise customers.

Moreover, officially changing the legal company name from "Philippine Long Distance Telephone Company" to simply "PLDT Inc." gave a positive signal to all stakeholders that the changes to be brought on by this digital transformation will be profound and will go deeper than mere branding.

"Rather than allow ourselves to be disrupted by new technologies, we are disrupting ourselves," said PLDT and Smart Chairman and CEO Manuel V. Pangilinan.

"We have embarked on a digital pivot to enable us to serve the increasing needs of our people's digital lifestyle and the country's growing digital economy," he said.

Consistent with its history of coming up with radical innovations, the PLDT Group will continue to provide innovative digital services that will be vital to the progress of the country.





The new logos are shaped like a triangle, the Greek symbol Delta meaning 'change,' which is apt for an organization that is always seeking ways to change lives for the better.

# A NEW MISSION. VISION. AND VALUES STATEMENT

Aside from unveiling their new corporate logos, PLDT and Smart also launched their first unified vision, mission, and values campaign. It demonstrated leadership's intent to promote a shared and collaborative organizational culture. Having a common direction and goal gives the PLDT Group a compelling map that would effectively guide its efforts moving forward.

## Mission

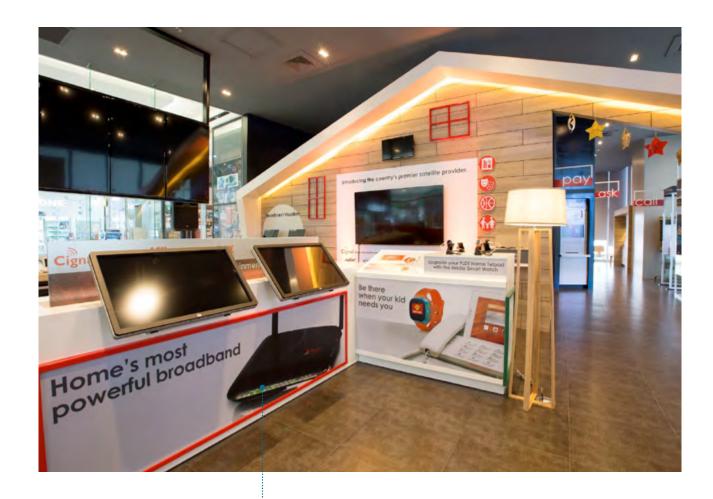
Empower Filipinos everywhere with customer-focused digital innovations that unlock and share their infinite potential.



# Vision

create a better tomorrow.

# **PRODUCTS AND SERVICES**





#### **CONSUMER**

#### Home – Data

- Fiber
- DSL
- TD LTE
- Infotainment
- Video Services

#### Home - Voice

- Landline
- Prepaid
- Call Cards

#### Mobile

- Postpaid
- Premium
- Prepaid
- Broadband
- Di Gaaban
- Satellite
- Value-Added Services

#### **ENTERPRISE**

#### Fixed - Data

#### Domestic

- Fiber
- Metro Ethernet
- IPVPN
- Leased Line
- VSAT
- DSL

#### Wireless

- Postpaid
- Prepaid

#### **PLDT Global**

- US
- UK
- Hong Kong
- Singapore
- Malaysia
- Japan
- Macau\*
- Taiwan\*
- Guam\*
- Spain\*
  - \*Branded partnership

#### Fixed - Data International

- Carrier Ethernet
- Private Leased Circuits
- IPVPN

#### Wireless - Broadband

- TD-LTF
- LTE
- VSAT

#### Fixed - ICT Solutions

- Data Center and Cloud
- Big Data Solutions
- Web Presence
- Managed IT Services

#### Wireless - Solutions

- Prepaid Loading
- Messaging
- Security
- Machine-to-Machine and Internet of Things

#### Fixed - Voice

- Direct Line
- Trunkline
- Managed Services
- Audio and Video Conferencing

#### Wireless - Satellite

- Prepaid
- Broadband Land
- Broadband Maritime
- Over the Top (OTT)

#### **DIGITAL INNOVATIONS**

# Access and Customer Engagement

- Sponsored Mobile Data Consumer App and Enterprise Platform
- Over-the-Top Communications
- Application Protocol Interfaces (APIs)
- SMS+ Mobile Marketing Platform
- Mobile Magazine
- Digital Advertising Platform Management
- Digital Marketing Agency

#### **eCommerce Platforms**

- Online Store Builder
- Online Marketplace
- Online Marketplace Builder
- eCommerce Wallet for Employee Rewards Program

#### **Digital Financial Services**

- Digital Payments for Consumers
- Domestic Remittance and Person-to-Person Money Transfers
- Merchant Payment Acceptance and Processing
- Mobile Money Platform Back-end Processing
- Digital Lending Platform
- Loans Marketplace
- Financial Disbursements Tool
- Digital Monitoring and Evaluation Tool for Conditional Cash Transfers

## **AWARDS AND RECOGNITION**



#### PLDT

- Institutional Investor's Governance Award
   (For publicly listed companies with \$10 billion and up of market cap)
- Best Investor Relations Program –
   Telecommunications (Sell-side)
   2016 Asia Executive Team, Institutional Investors Magazine
- Best IR Professional
   Melissa Vergel de Dios (#3) (Overall and Sell-side)
   2016 All-Asia Executive Team, Institutional Investors Magazine
- IABC's CEO Excel Award
  Eric Alberto (as CEO of ePLDT)
  - Best Investor Relations
     (#2 Philippines), Finance Asia Awards
- Most Committed to Corporate Governance (#5 Philippines), Finance Asia Awards
- Best Corporate Social Responsibility (#8 Philippines), Finance Asia Awards
- Best Managed Company
   (#9 Philippines), Finance Asia Awards
- UPS International Disaster Relief Award
   PLDT/Philippine Disaster Resilience Foundation



#### **Smart Communications**

- Company of the Year
  PRSP Anvil Awards 2016
- First Runner-Up, Company of the Year
  IABC Philippine Quill Awards 2016
- Financial Management Excellence Award
   June Cheryl Cabal Revilla (CFO)
   BizNews Asia

#### **PLDT Home**

Honor Roll (1 of 5) – Leadership Category
 15<sup>TH</sup> Annual CIO Asia Awards

#### **PLDT Infoteach Outreach Program**

 Excellence Award for Best Presentation and Content International Conference on Education and Social Science, Singapore





Change the World List
 Fortune Magazine 2016

#### **TNT AlDub Campaign**

• Best Operator Marketing Campaign
Global Telecoms Awards, London, United Kingdom

#### Smart TechnoCart

- Social Contribution Award
   World Communication Awards, London, United Kingdom
- Social Contribution Award
   Asia Communication Awards, Singapore

#### **PayMaya**

- Best Online Payments Solution
   9th Annual Emerging Payments Awards, London,
   United Kingdom
- Best New Digital Product of 2016
   Visa Philippines



#### TackThis!

- Best eCommerce Technology Provider

  Cards and Payments Asia Smart Awards, Singapore
- Best SME Service
   Asia Communication Awards, Singapore

#### **Mobile Loan Saver**

- Published Rest in Customer Experience Award

  Customer Experience in Financial Services (CXFS) Asia

  Awards, Singapore
- Excellence in Lending Lafferty Global Awards
- Best Innovative Lending Platform International Finance Magazine

#### LockByMobile

Best Mobile Security Innovation of the Year
Telecom Asia Awards



## Public Relations Society of the Philippines (PRSP) Anvil Awards 2016

#### **Gold Anvil**

#### **PLDT**

PLDT ALPHA's Hot Joe Magazine
PLDT Home's Most Beautiful Connection Video
PLDT Home's Strengthening the Volleyball Community with the
Volley Friends
Gabay Guro 2016

## Silver Anvil

#### **PLDT**

2015 Annual Report: Virtual is Real
PLDT Home Fibr Planner
PLDT ALPHA's Customer Testimonials AVPs
PLDT Inc.'s Changing the Way You Do Business
PLDT Home's Regine Series Nationwide Tour 2016
Gabay Guro's Teacher Fest 2016
PLDT SME Nation's Techmobile
Tech Island 2.0
PLDT Home's Data Sharing
PLDT Home's Smart Watch
PLDT ALPHA for its Customer Engagement
PLDT SME Nation's Big Talks
PLDT SME Nation's Be The Boss
PLDT SME Nation's Make It Big

#### **Smart**

Batibot App
Employee Rockstar Program
Free Internet
Smart TechnoCart
Sun Choose Better
SWEEP
SWEEP Awards

#### **Smart**

Agile Coaching Movement
Digital X
Doon Po Sa Amin
Simple Joys of Christmas
Smart-Mystery Manila: Escape from the Earthquake
Smart Life
#SugodManny

# International Association of Business Communicators Philippine Quill Awards 2016

#### **Excellence Awards**

#### **PLDT**

Annual Gabay Guro Grand Gathering for teacher-beneficiaries Gabay Guro's classroom donations for calamity-affected areas PLDT ALPHA's Annual Track Day PLDT ALPHA's Hot Joe Magazine PLDT SME Nation's Bossing Ako Campaign

#### **Smart**

Agile Coaching Movement
Digital X
Free Internet
Internet.org
Simple Joys of Christmas
Smart TechnoCart
Sun Broadband Non-Stop Surf Plans
Sun Self Care Purposive Migration
SWEEP
SWEEP Awards (Finalist for Top Division Award)

#### **Merit Awards**

#### **PLDT**

Gabay Guro's Teacher Training Program
Gabay Guro's Crossover Video
PLDT Pasasalamat Night: A Glittering ALPHA Experience
Enterprise Customer Care Engagement Campaign
PLDT SME Nation's Small Business Month Campaign

#### **Smart**

Doon Po Sa Amin Smart Life Smart Self Care Campaign #SugodManny Sun Broadband Gadget Plans Sun Choose Better Campaign



### **Boomerang Awards, Philippines**

Silver Award for Digital Effectiveness for Sun First Job Problems

Bronze Award for Digital Campaign for How to be Friends again after Elections

Bronze Award for Digital Craft for GameX Suntukan sa DOTA



# **CHANGING THE FUTURE NOW**

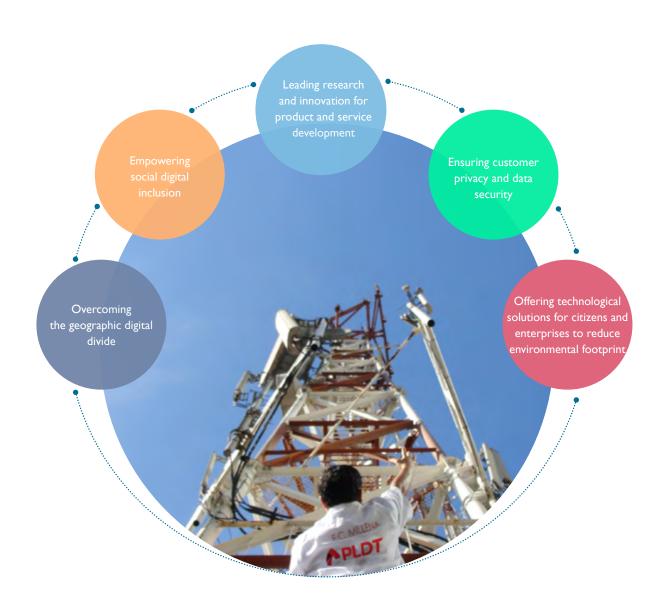
Sustainability for the PLDT Group is about empowering the organization to maintain industry leadership and continue supporting the country's inclusive progress into the digital future.

# SUSTAINABILITY IN THE CONTEXT OF A TRANSFORMATIVE DIGITAL ECONOMY

Amid evolving market behavior, the PLDT Group acknowledges that the future is being shaped by the growing global digital economy that runs on mobile data and broadband. By embracing change and deliberately disrupting the present to ensure growth in the future, the PLDT Group demonstrates its unwavering focus on sustainability of the triple bottom line – economic, social, and environmental. It is this focus that drives current strategies and is the keystone of the group's resolute push for digital transformation and inclusive growth.

With this sustainable thinking, the organization is able to define and decide on investment priorities, product and service innovations, organizational development, marketing approaches, and institutional relationships. In short, the sustainable ethos of becoming a better business every day makes the PLDT Group a sustainable enterprise that is able to lead in the marketplace.

As the telecoms industry leader in the Philippines, PLDT's business decisions contribute significantly to the sustainable growth of the country in essential aspects:





The Group applies its sustainability principles in the context of "ICT for development" – providing access to digital technologies so more people could enjoy their benefits. The application of ICT on all aspects of modern life – education, health, commerce and enterprise, tourism, agriculture, transportation, civic and social engagement, among others – can help narrow the gap between the rich and the poor.

The United Nations 2030 Agenda for Sustainable Development articulates a global collaboration to "take the bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path." It also notes how "the spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide, and to develop knowledge societies."

"The spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide, and to develop knowledge societies."

The PLDT Group supports the national effort in pursuit of the 17 Sustainable Development Goals (SDGs), specifically the ones where ICT organizations can contribute the most.

The February 2016 version of the SDGs report includes the following targets under Goals 4, 5, 9, and 17.



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

#### Target 4a:

Proportion of schools with access to the internet for pedagogical purposes **Target 4a:** 

Proportion of schools with access to computers for pedagogical purposes **Target 4.4:** 

Proportion of youth/adults with ICT skills, by type of skills



Achieve gender equality and empower all women and girls

#### Target 5b:

Proportion of individuals who own a mobile telephone, by sex



Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

#### Target 9c:

Percentage of the population covered by a mobile network, broken down by technology



Strengthen the means of implementation and revitalize the global partnership for sustainable development

#### **Target 17.6:**

Fixed internet broadband subscriptions, broken down by speed

#### **Target 17.8:**

Proportion of individuals using the internet

# SUSTAINABILITY AS BUILDING BLOCKS FOR THE FUTURE

The PLDT Group's sustainability strategy is articulated in its Five Pillars of Sustainability which are the touchstones that guide the entire organization's commitments and behavior:

### Five Pillars of Sustainability

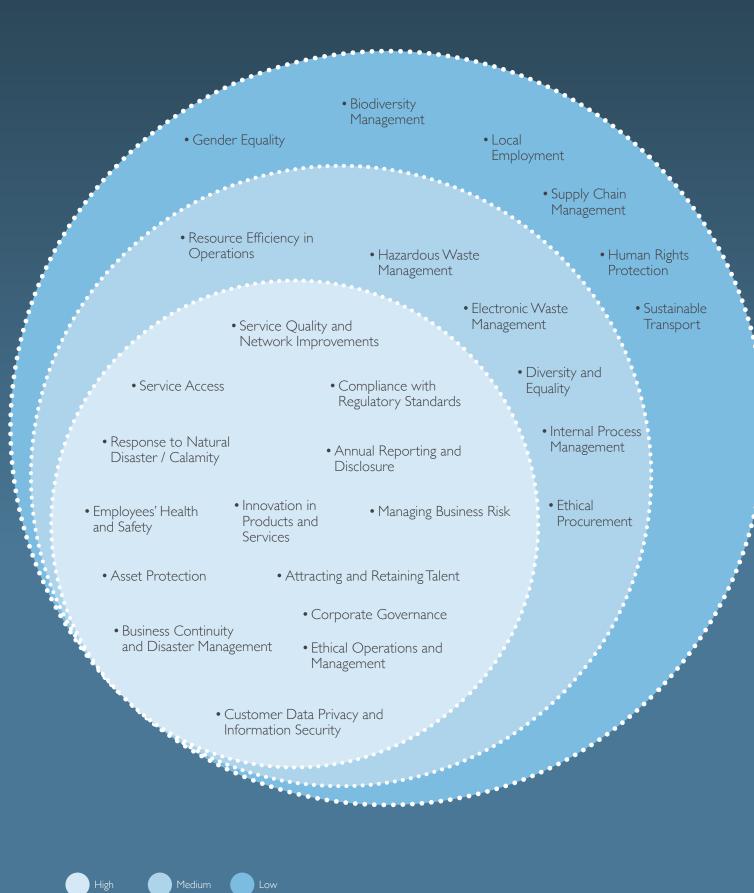


The PLDT Group has integrated the sustainability approach into a collaborative stakeholder engagement plan to closely align strategy, roadmap, performance indices, and programs to the key material aspects that were identified through global-standard research and analysis and materiality assessment workshops.

The workshops revealed the topics and impacts most relevant to stakeholders, and consequently helped the PLDT Group identify, assess, and prioritize the standard disclosures related to them.

Both internal and external factors were considered in the assessment of materiality, guided by the PLDT Group's mission and vision, core values, corporate culture, management strategy, and stakeholder feedback.

The results of the research and workshops were formally presented to the Board who expressed concurrence on their importance to the organization. The identified material aspects are shown in the following illustration, with key focus areas categorized under concerns of high, medium, and low importance:





# STAKEHOLDER ENGAGEMENT AS KEY POLICY



The PLDT Group is focused on engaging with all stakeholders and fulfilling its responsibility to address the concerns that are most significant to them.

The organization actively seeks channels for communicating and promoting dialogue with its internal and external stakeholders. Internal stakeholders comprise employees, shareholders and investors, suppliers, and service providers. External stakeholders comprise customers, local government agencies, regulatory bodies, and communities.

The Stakeholder Management Plan is constantly being improved, with the goal of capturing valuable insights that help inform policies and strategies. It is designed to identify complex problems so they could be acted on in a timely manner.

# Stakeholder Management Plan

# Government and Regulators

Key Concerns	cerns Engagement Methods Frequency of Engagement		Response to Key Concerns	
Compliance with regulations	<ul> <li>Operate within relevant legislative and regulatory frameworks and comply with applicable requirements</li> <li>Participate in public forums and hearings conducted by governmental and regulatory agencies relative to initiatives in the fields of ICT</li> </ul>	• As needed	<ul> <li>Business ethics and governance</li> <li>Compliance with regulatory standards</li> </ul>	

## Shareholders and Investors

Key Concerns	Engagement Methods	Frequency of Engagement	Response to Key Concerns	
<ul> <li>Company's operational and financial performance</li> <li>Company's recent developments and future plans</li> <li>Company's compliance with corporate governance metrics set by investors</li> </ul>	<ul> <li>Public disclosures to the investors and shareholders through the Annual Report, Audit Committee Report, Corporate Governance Report, Enterprise Risk Management Report, and Corporate Social Responsibility Report</li> <li>Issue regular releases on important developments</li> <li>Two-way dialogue with shareholders</li> </ul>	<ul> <li>Release of reports, annually</li> <li>Meetings with the press, investors, and analysts, quarterly</li> <li>Telephone conferences, twice a year</li> <li>Investor forums, regularly</li> </ul>	<ul> <li>Annual reporting and disclosure</li> <li>Managing business risk</li> <li>Business continuity and disaster management</li> <li>Business ethics and governance</li> </ul>	

#### Customers

#### Key Concerns **Engagement Methods** Frequency of Engagement Response to Key Concerns Understand the customers' Company image Voice of the Service access Marketing and promotions product/service needs Customer Program, Service quality and network through "Voice of the Products portfolio regularly improvements Quality of service Customers Program" Through listed Customer data privacy and Pricing Address their concerns for information security engagement venues, better customer experience Innovation in products and Application process regularly Service provisioning process and measure the quality of services services Repair and restoration service Interfacing through the Channels/means to contact following: Service Level Agreements Business offices for service provisioning, Call centers restoration, and queuing Online services (email, website, and transaction times social media) Billing process SMS facility Payment and collection Sales agents Project proposals Technicians/contractors Bill delivery service providers Customer satisfaction/ customer experience studies Market research/focus group discussion studies

### **Employees**

Key Concerns	Engagement Methods	Frequency of Engagement	Response to Key Concerns
<ul> <li>Working conditions</li> <li>Skills training</li> <li>Career opportunities</li> <li>Health and safety</li> <li>Work-life balance</li> </ul>	<ul> <li>Conduct employee         engagement surveys to         measure the level of         engagement among the         employees of the company</li> <li>Develop skills through         regular training         programs as those by         Telecommunications         Training and Education         Center (TeITEC) and Smart         University</li> <li>Organize programs to         support the wellbeing of         employees</li> <li>Provide comprehensive         health and medical benefits         to employees</li> </ul>	<ul> <li>Employee engagement surveys, regularly</li> <li>Training programs, regularly</li> <li>Medical check-ups, annually</li> </ul>	<ul> <li>Attracting and retaining talent</li> <li>Employees' health and safety</li> <li>Business continuity and disaster management</li> </ul>

## Suppliers

Key Concerns	Engagement Methods	Frequency of Engagement	Response to Key Concerns
<ul> <li>Suppliers are eager to offer partnerships, subject to appropriate transparency measures</li> </ul>	<ul> <li>Engagement is in coordination with the procurement unit and internal proponents</li> <li>Communicate through online portals</li> </ul>	As needed	Compliance with regulatory standards

## Communities

Key Concerns	Engagement Methods	Frequency of Engagement	Response to Key Concerns
How they may be affected by operations of the company	Engage with the communities though CSR projects in education, health, livelihood development, youth development, sports, and disaster relief operations	As needed	<ul> <li>Response to natural disasters/calamities</li> <li>Resource efficiency and operations</li> <li>Corporate social responsibility</li> </ul>

PLDT's membership in telecommunications industry associations is also significant, as it enables the company to work with other players in pursuing the government's ICT-related development plans.

PLDT is a member of various industry associations, including:

Local	International		
<ul> <li>Philippine Association of Private Telephone Companies (PAPTELCO)</li> <li>Philippine Chamber of Telecommunication Operators (PCTO)</li> </ul>	<ul> <li>Metro Ethernet Forum (MEF)</li> <li>International Telecommunications Union (ITU)</li> <li>International Inbound Services Forum (IISF)</li> <li>International IP Interconnect Forum (i3F)</li> <li>International Telecoms Week (ITW)</li> <li>Pacific Partners Meeting (PPM)</li> <li>Global Settlement Council (GSC)</li> </ul>		



# WHAT MATTERS MOST

The Group's performance in material issues of sustainability are tracked, monitored, and analyzed in order to identify where resources need to be allocated to further improve results for the following years.

## MATERIAL ASPECTS



This Sustainability Report is an adjunct document to the Annual Report and, as such, focuses mainly on the social and environmental aspects of sustainability for the organization. Pertinent and comprehensive data on financials and economic performance are provided in the Annual Report which is available to the public and accessible online at www.pldt.com.

Here is a brief summary of the Group's economic performance for 2016:

- Consolidated Service Revenues, net of PhP9.6 billion in interconnection costs, amount to PhP147.6 billion, 3% less than previous year.
- Consolidated Core Income reached PhP27.9 billion, 21% lower than
  the prior year, mainly due to lower EBITDA and costs arising from
  higher capital expenditures to support ongoing expansion of the fixed
  and mobile networks.
- Dividends per share for the year amounted to PhP77 or 60% of 2016 core earnings.
- Of the PhP48 billion allocated for capex in 2016, PhP42.8 billion was actually spent. The balance pertains to projects pending completion or acceptance.

As noted by PLDT Chairman and CEO Mr. Pangilinan, the year 2016 was a period of resetting dials. "Profitability has been reset to a lower level, reflecting the impact of the changes in the business, our customer base, and our organization. This has provided us a new baseline from which we can build upon, and grow. This new reference point is the PhP20.2 billion in Recurring Core Income without exceptionals that was attained in 2016."

As the PLDT Group embarked on a three-year journey to transform its business and organization, Pangilinan assured the public that the Group is building superior, future-proof networks and IT platforms to deliver the best possible service experience to its customers.

"We have revamped our organization and are undertaking efforts to implant a digital corporate culture that will enable us to better service our customers in this digital age." - Manuel V. Pangilinan

## MATERIAL SOCIAL AND ENVIRONMENTAL ASPECTS

For purposes of clear presentation to readers of this document, the top material aspects were conceptually organized under the Five Pillars of Sustainability (as shown below):

#### **GOOD GOVERNANCE**

- Corporate Governance
- Annual Reporting & Disclosure
- Managing Business Risk

### ETHICAL BUSINESS PRACTICES

- Ethical Operations& Management
- Compliance with Regulatory Standards
- Ethical Procurement



#### QUALITY OF SERVICE

- Service Access
- Service Quality & Network Improvements
- Innovation in Products& Services

# SOCIAL RESPONSIBILITY

- Attracting & Retaining Talent
- Employees' Health & Safety
- Business Continuity & Disaster Management
- Response to Natural Disasters / Calamities

# RESPONSIBLE OPERATIONS

- Resource Efficiency in Operations
- Asset Protection
- Customer Data Privacy & Information Security

## **GOOD GOVERNANCE**

# Corporate Governance



At the core of the PLDT Group's sustainability approach is good corporate governance, with strategic leadership provided by the Board of Directors of PLDT (the "Board"), which ensures due diligence in reporting and disclosing all pertinent information to regulators, investors, and other stakeholders.

The Board of Directors also oversees the corporate governance framework established to foster long-term success, sustain competitiveness, and create value for its stakeholders.

The Board is composed of qualified and competent members, each highly regarded in their respective fields. They possess complementary skills and expertise, as well as the requisite independence, probity, and diligence for them to exercise their fiduciary duties. The Corporate Governance Manual promotes diversity within the Board and does not impose restrictions with respect to age, race, gender, and cultural or religious beliefs. In 2016, another female director was appointed, bringing the company's female directors to three.

At the start of the service of a new director, the Chairman, President, CEO, Chief Financial Officer, Corporate Secretary, and Chief Governance Officer give the new appointee a briefing on the group's structure and business, as well as the responsibilities and operations of the Board and its Committees. The new director is also furnished with copies of all relevant information, including the Company's Articles, By-Laws, the Annual Report, Corporate Governance Manual, Code of Ethics, and the Charters of the Board Committees.

Updates on business and governance policies and requirements – principally from the Philippine Securities and Exchange Commission (SEC), Philippine Stock Exchange (PSE), United States SEC, and New York Stock Exchange – and new relevant laws, particularly on financial reporting, disclosures, and corporate governance, are presented in Board meetings or furnished to the directors.



The Board meets, more or less, on a monthly basis in accordance with the schedule of meetings that it sets at the end of the preceding year. Some of these meetings are devoted to the review and/or approval of the company's Vision and Mission, the strategic plans and budget, business operations updates, network and technology updates, capital expenditures and investments, and CSR programs. The Board also reviews the quarterly financial reports.

In 2016, the Board held 16 meetings. In each meeting, a quorum of at least two-thirds of the Board members, including at least one independent director, was present. All independent directors were present in the Annual Stockholders' Meeting held on June 14, 2016. The respective Chairs of the Audit, Governance and Nomination, Executive Compensation, Risk, and Technology Strategy Committees were present as well in the said meeting.

#### **PLDT Board of Directors**

Director	Designation	<b>Board Meetings</b>	Annual Stockholders' Meeting
Manuel V. Pangilinan	Executive Director	16/16	✓
Ray C. Espinosa	Executive Director	16/16	✓
Ma. Lourdes C. Rausa-Chan	Executive Director	16/16	✓
Helen Y. Dee	Non-Executive Director	12/16	×
James L. Go	Non-Executive Director	16/16	✓
Tadashi Miyashita¹	Non-Executive Director	10/11	✓
Napoleon L. Nazareno²	Non-Executive Director	9/9	×
Hideaki Ozaki	Non-Executive Director	14/16	✓
Albert F. del Rosario <sup>2</sup>	Non-Executive Director	7/7	
Juan B. Santos³	Non-Executive Director	4/ 4	✓
Atsuhisa Shirai¹	Non-Executive Director	5/5	
Tony Tan Caktiong <sup>4</sup>	Non-Executive Director	4/14	×
Amado D.Valdez³	Non-Executive Director	2/2	
Marife B. Zamora <sup>4</sup>	Non-Executive Director	2/2	
Bernido H. Liu	Independent Director	12/16	✓
Artemio V. Panganiban	Independent Director	16/16	✓
Pedro E. Roxas	Independent Director	15/16	✓

<sup>1</sup> Mr. Atsuhisa Shirai was elected as director effective August 30, 2016 vice Mr. Tadashi Miyashita who resigned on August 29, 2016.

<sup>4</sup> Ms. Marife B. Zamora was elected as director by the Board of Directors on November 14, 2016 vice Mr. Tony Tan Caktiong who resigned on November 13, 2016.

Advisory Committee	Designation	Designation Board Meetings	
Oscar S. Reyes	Advisor	16/16	✓
Roberto R. Romulo	Advisor	16/16	✓
Benny S. Santoso	Advisor	15/16	✓
Washington Z. SyCip	Advisor	15/16	X
Orlando B.Vea	Advisor	16/16	√
Christopher H. Young	Advisor	16/16	✓

There are five Board Committees, namely: Audit Committee, Governance and Nomination Committee (GNC), Executive Compensation Committee, Risk Committee, and the Technology Strategy Committee.

All members of the Board Comittees are within the age group of above 50. Apart from the Governance and Nomination Committee, all Board Comittees are composed of male members. One out of the seven committee members of the GNC is female.

The Governance and Nomination Committee has the following functions, responsibilities, and powers:

- Oversee the development and implementation of corporate governance principles and policies
- Assist the Board in developing and implementing its performance evaluation process
- · Review and assess the adequacy and effectiveness of the company's corporate governance structures, principles, and policies
- Establish the appropriate evaluation system for monitoring and assessing compliance with the corporate governance policies
- Oversee the continuing corporate governance communication and education programs
- Consider, resolve, and/or submit its recommendations to the Board on corporate governance issues

<sup>2</sup> Mr. Albert F. del Rosario was elected as director effective July 11, 2016 vice Mr. Napoleon Nazareno who resigned on even date.

<sup>3</sup> Mr. Amado D. Valdez was elected as director by the Board of Directors on November 14, 2016 vice Mr. Juan B. Santos who resigned on October 24, 2016.

## WHAT MATTERS MOST

Member	Audit Committee (AC)	Governance and Nomination Committee (GNC)	Executive Compensation Committee (ECC)	Risk Committee (RC)	Technology Strategy Committee (TSC)
Manuel V. Pangilinan		4/4	1/1		2/2
Ray C. Espinosa					2/2
Ma. Lourdes C. Rausa-Chan		4/48			
Bernido H. Liu	9/11	4/4	1/1	3/4	
Artemio V. Panganiban	11/11	4/4	1/1	4/4	
Pedro E. Roxas	11/11	4/4	1/1	4/4	
James L. Go	10/10 <sup>7</sup>			3/4	2/2
Tadashi Miyashita <sup>5</sup>	4/4 <sup>7</sup>	2/2	1/1	2/2	2/2
Napoleon L. Nazareno <sup>6</sup>					2/2
Albert F. del Rosario <sup>6</sup>					-
Atsuhisa Shirai <sup>5</sup>	4/4 <sup>7</sup>	2/2	-	2/2	-
Roberto R. Romulo	10/107				
Oscar S. Reyes					2/28
Orlando B.Vea					2/28
Corazon S. Dela Paz-Bernardo	11/117				
Menardo G. Jimenez, Jr.		4/48	1/18		

<sup>5</sup> Mr. Shirai was appointed as member of the GNC, ECC, RC, and TSC, and as advisor to the AC effective August 30, 2016 vice Mr. Miyashita who resigned on August 29, 2016. 6 Mr. Albert F. del Rosario was appointed as member of the TSC effective July 11, 2016 vice Mr. Nazareno who resigned on even date.
7 Advisor to the AC
8 Non-voting member

In accordance with the Corporate Governance Manual, PLDT provides continuous training for its Board, senior management, officers, executives, and employees. This includes an annual enhancement session conducted by international and local experts. The following are the corporate governance training sessions attended by the Board and key officers in 2016:

#### **Board Training**

Program	Date of Training	Training Institution	Directors in Attendance
Digital Transformation, Risk Management & Governance in the 21st Century	November 23, 2016	Speaker: Mr. Mike Walsh, CEO, Tomorrow	Manuel V. Pangilinan Ray C. Espinosa Artemio V. Panganiban Ma. Lourdes C. Rausa-Chan Albert F. del Rosario Marife B. Zamora
Digital Governance: Issues in Emerging Technologies	November 23, 2016	Speaker: Mr. Chia Ling Koh, Director, Singapore Law Practice of Queen Street Legal LLC	Manuel V. Pangilinan Ray C. Espinosa Artemio V. Panganiban Ma. Lourdes C. Rausa-Chan Albert F. del Rosario Marife B. Zamora
The Philippine Competition Act and Philippine Competition Commission	May 3, 2016	Speakers: Attys. Emmanuel M. Lombos and Arlene M. Maneja, SyCip Salazar Hernandez and Gatmaitan Law Office	Manuel V. Pangilinan Napoleon L. Nazareno Helen Y. Dee Ray C. Espinosa James L. Go Bernido H. Liu Tadashi Miyashita Hideaki Ozaki Artemio V. Panganiban Ma. Lourdes C. Rausa-Chan Pedro E. Roxas Juan B. Santos Tony Tan Caktiong
Corporate Governance Seminar on Financial Reporting and Audit	February 5, 2016	Speaker: SGV & Co.	Artemio V. Panganiban Pedro E. Roxas
ESG Reporting – HKEx Requirements	October 12, 2016	Speaker : Mr. Coleman Ng KPMG Hong Kong	Manuel V. Pangilinan Ray C. Espinosa
Corporate Governance Seminar	December 21, 2016	Speaker: SGV & Co.	Bernido H. Liu
	December 8, 2016		Hideaki Ozaki
	November 12, 2016	Speaker: Risks, Opportunities, Assessment and Management, (ROAM) Inc.	Helen Y. Dee
Corporate Governance Orientation Program	November 23, 2016	Speaker: Institute of Corporate Directors	Atsuhisa Shirai
	August 25, 2016		Juan B. Santos
Corporate Governance Training Program	August 8, 2016		Tony Tan Caktiong
SEC Corporate Governance Forum	August 3, 2016	Securities and Exchange Commission	Ma. Lourdes C. Rausa-Chan
Cyber Security in the 21st Century:TheThreat Landscape	February 18, 2016	Speaker: Christopher Camejo	Napoleon L. Nazareno Ray C. Espinosa Tadashi Miyashita Ma. Lourdes C. Rausa-Chan

# Annual Reporting and Disclosure



Keeping the organization accountable and responsive to its stakeholders, maintaining transparency in its business decisions, and creating opportunities for participation in policymaking are considered paramount. Good governance provides a structure for oversight that ensures decisions are made for the best interest of the company, and that there are effective mechanisms for stakeholders to seek redress when necessary. The Board ensures timely disclosure of material information and transactions that could potentially affect the market price of PLDT shares. As a publicly listed Philippine corporation, PLDT is required to comply with the disclosure requirements of the Philippine SEC and the PSE. Because its American Depositary Receipts are listed in the New York Stock Exchange, PLDT also complies with the disclosure requirements of the US Securities and Exchange Commission and the New York Stock Exchange.

Required by law to be disclosed in the Philippines and the US are earnings results, acquisition or disposal of significant assets, off balance-sheet transactions, related party transactions, Board membership changes, shareholdings of directors and officers and any changes thereto, and remuneration of directors and officers, among others.

The Group has Internal Disclosure Controls and Procedures which ensure that information is disclosed in accordance with applicable rules.

All major company announcements are reviewed and approved by PLDT's Disclosure Committee, which is composed of certain members of Senior Management, and by the Board of Directors or Audit Committee.

In November, PLDT disclosed leadership changes and appointments in line with the new mission of leading, inspiring, and empowering Filipinos with customer-focused digital innovations. Using all available channels in its arsenal, PLDT communicated with external and internal stakeholders that the organizational changes were pursued to create a more aligned, cohesive, and collaborative organization, as well as to strengthen the management team by reinforcing it with global talent in support of its digital pivot.

Among the changes was the creation of the position of Chief Corporate Services Officer who will oversee the effective management, organization, and synchronization of related corporate services functions, including: Corporate Affairs and Legal Services, Regulatory Affairs and Policies, Supply Chain Management, Property and Facilities Management, Asset Protection and Risk Management, Business Continuity and Resilience, Data Privacy, and Corporate Communications and Public Affairs.

## The PLDT Group uses a variety of channels to disseminate information:

For shareholders/investing public	For employees
<ul> <li>Disclosures and filings to the SEC, United States Securities and Exchange Commission, PSE and New York Stock Exchange</li> </ul>	Newsletter/magazine
Annual Report	Online newsletter/magazine
Sustainability Report	Electronic Direct Mail
Company Website/s	
Social Media Platforms	
Annual Stockholders' Meeting	
Investors/Analyst Briefings	••
One-on-one meetings/company visits/investor conferences/non-deal roadshows	•
Quarterly Press Conferences/Briefings	•
Electronic Direct Mail	

## PLDT cited for Good Governance in Investors Forum 2016



Based on the criteria of the ASEAN Corporate Governance Scorecard, PLDT was recognized for its consistent efforts on public disclosure and transparency through its detailed annual report and corporate website. The forum was organized by the US Agency for International Development, Institute of Corporate Directors, Fund Managers Association of the Philippines, Philippine Investment Funds Association, Trust Officers Association of the Philippines, and PJS Corporate Support, Inc.



Business resilience is the crucial commonality between the principles and practice of Enterprise Risk Management and Sustainability. The two disciplines are more intertwined in today's economy where interconnected risks create fast and disruptive waves of impact that can overwhelm the unaware and unprepared.

Implementing a risk management plan that increases business resilience to social and environmental pressures allows an organization to capture sustainability opportunities.

Board oversight over risk management strategy and practices is therefore an essential aspect of the PLDT Group's sustainability strategy.

The Board has a Risk Committee which oversees management's adoption and implementation of a system for identifying, assessing, monitoring, and managing key risk areas. The Risk Committee also reviews management's reports on major risk exposures, as well as plans and acts to minimize, control, or manage the impact of such risks. The Risk Committee's functions, key responsibilities, and powers are set forth in the Committee Charter approved in 2015.

Guided by the Board, PLDT has promulgated a Risk Management Philosophy Statement and a PLDT Group Risk Management Policy Manual that specifies the Enterprise Risk Management (ERM) Framework adopted. This requires the development and implementation of suitable treatment strategies to address high-priority risks.

The policy is operationalized through PLDT's Group Enterprise Risk Management Department (GRMD) which manages an ERM process across all levels of the organization based on the ISO 31000 standard on risk management.

The GRMD uses not only a Top-Down Approach wherein senior management is convened annually to identify, analyze, and evaluate top risks that need to be addressed; it also uses a Bottom-Up Approach wherein GRMD convenes department heads and conducts ERM workshops focused on enterprise and cross-functional risks. The critical risks are identified in the workshops which GRMD consolidates in a quarterly report to the Risk Committee.

With all critical risks identified, suitable risk treatment strategies and action plans are then developed by operational units. The risk owners are given the responsibility for coordinating and engaging the different teams involved in the implementation of the plans. With this system, appropriate resources are made available to ensure the plans are implemented effectively. The process is fully documented to create an audit trail for periodic audits to test compliance with approved strategies.

Risk Exposure		Risk Management Policy	Objective
1.	Competitive Situation	Strengthen brand by ensuring network reliability and excellent customer experience while closely monitoring competition.	To rebuild market and brand leadership.
2.	Recruitment and Retention of Appropriate Personnel	Ensure that the current workforce is empowered and equipped with the skills necessary to support changing business requirements. Management policies also include the implementation of new performance metrics that will ensure a culture of innovation, collaboration, and customer experience.	To manage manpower and talent requirements given the changing industry landscape.
3.	Execution of Network Rollout	Expand network coverage and capacity and ensure network reliability.	To keep network and technological superiority and provide the best customer experience.
4.	Monetization of Data Traffic	Explore other non-traditional revenue opportunities.	To increase revenue through other revenue streams.
5.	Changes in Political/ Regulatory Landscape	Be ready for the possible changes in the regulatory environment and security threats arising from national and international conflicts.	To closely monitor the regulatory environment and to comply with existing regulations.
6.	Execution of Digital Pivot/Transformation	Ensure that the organization's structure is suitable for a digital-focused strategy.	To institute strategic change within the company by 2019.
7.	Regular Occurrence of Natural Disasters	Develop and implement business continuity plans.  Management policies also acknowledge the important role of insurance in protecting the PLDT Group from losses resulting from hazardous events.	To provide high-availability service and ensure that the PLDT Group is protected from losses resulting from hazards by strengthening its Business Continuity Plans and purchasing adequate insurance policies.
8.	Dependence on Vendors	Ensure that appropriate procurement organization and processes are in place.	To have a competitive pool of suppliers supporting business requirements.
9.	Exposure to Financial Risk	Manage financial risks at acceptable levels.	To grow revenue and minimize expenses to increase market share.
IC	). Increase in Cybersecurity Issues	Manage information risks by protecting data from security breaches and help ensure that statutory requirements are met and penalties are avoided.	To build secure systems and infrastructure and to prevent disclosure of confidential information to unauthorized individuals.

## ETHICAL BUSINESS PRACTICES

# Ethical Operations and Management



With established ethical standards and a code of conduct, the organization endeavors to promote a culture of good corporate governance. The commitment to excellence and sustainability is also a commitment to abide by legal and ethical rules and regulations that will keep the organization in a leadership role in the industry.

The PLDT Group is guided by two fundamental policies – the Corporate Governance Manual and the Code of Business Conduct and Ethics. These policies are benchmarked against global best practices. The corporate governance policies are reviewed every two years to ensure that they continue to be compliant, appropriate, and effective.

Included in the Code of Business Conduct and Ethics is the group's anticorruption policy. The Policy on Gift-Giving Activities provides guidance and procedural safeguards with respect to gift-giving activities to government officials and employees and to business partners, for or on behalf of PLDT. The policy seeks to ensure that such activities are compliant with applicable laws and consistent with the company's core values and policies.

The Policy on Gifts, Entertainment, and Sponsored Travel provides safeguards in the receipt and acceptance of gifts given by third parties to ensure that such gifts would not affect the objective, independent, or effective performance by directors, officers, and employees.

Its implementation is reinforced by related policies such as the Corporate Governance Guidelines for Suppliers, which gives strict guidelines on transactions between the organization and its suppliers. Compliance with this policy is monitored and supported with preventive measures including internal controls, training and communication programs, whistleblowing facilities, third party due diligence, and enforcement mechanisms.

In addition, the group has a Supplier/Contractor Relations Policy which ensures that it upholds the highest professional standards in its dealings with suppliers and contractors for the procurement of goods and services. The policy seeks to obtain the best value for the organization, while maintaining the PLDT Group's reputation for honesty, and for providing equal opportunity to suppliers.

The policy sets the processes of vendor accreditation and competitive bidding as the general rule. It ensures that contracts are awarded only to qualified and duly accredited suppliers and vendors who offer the best value for money for the PLDT Group's requirements.



Meanwhile, copies of the Code of Business Conduct and Ethics are distributed to all directors, officers, and employees. It is also available for download in the PLDT corporate governance website and the PLDT InfoCentral intranet portal. The code is taken up and discussed in training and enhancement sessions where participants are asked for feedback on the relevance and effectiveness of the policy. PLDT evaluates these feedback and also conducts focus group discussions covering a wide cross-section of company personnel.

An employee survey is also conducted to track improvements in their observance of corporate governance policies and values over the first five years of employment, as well as their perception of policy observance by their units.

An ethics perception survey was also developed to provide quantitative information that can be more easily tracked, managed, and be made the basis for the development and review of programs, policies, and initiatives.

All these efforts are geared towards cultivating an ethical organization that thrives under regulation and aims for higher standards of excellence.

# Compliance with Regulatory Standards



Adherence to laws, regulations, guidelines, and specifications relevant to the business is strictly observed throughout the organization. Acting responsibly towards customers, employees, and the communities where a business operates not only builds reputation but also enhances productivity.

As it provides an essential public service, the telecommunications industry is highly regulated. Thus, the organization complies with the requirements of Local Government Units (LGUs) and national agencies, such as the Securities and Exchange Commission, Department of Trade and Industry (DTI), Department of Labor and Employment, Department of Environment and Natural Resources, Bureau of Internal Revenue, Department of Information and Communications Technology, and the National Telecommunications Commission (NTC). Indeed, every product and service to be offered, as well as their price levels, require approval by the NTC.

Also, standard quality control dictates that all customer-premises equipment (all equipment located in customers' premises such as handsets, set-up boxes, and routers), network facilities, and node equipment should be properly cleared and type-approved with the NTC. Moreover, the procurement and logistics teams are required to get NTC and custom importation permits before such equipment are brought and utilized in the country.

Despite compliance with these regulations, some unfortunate incidents might still take place. For instance, a PLDT Telpad user reported that in March 2016, his Telpad caught fire while he was charging it. PLDT conducted an investigation and discovered that the battery of the device was bloated due to overcharging by the subscriber. PLDT also noted that the Telpad was positioned by the window and directly exposed to sunlight. It was then established that the incident was not due to PLDT's fault or negligence.

Thereafter, PLDT replaced the user manual with one that contains additional guidelines advising Telpad users to not leave the device plugged in the whole time, and to not directly expose the Telpad to sunlight. PLDT sales agents were also directed to inform subscribers of the additional guidelines upon purchase of the Telpad at sales service centers or via callouts.

Customer grievances are addressed via processes and/or mechanisms that adhere to NTC and DTI regulations and guidelines. The PLDT Legal Services - Lawsuit Management Division reports that cases at the NTC and DTI pertaining to consumer complaints, billing disputes, and service disruption issues have been minor and most, if not all cases, have been amicably settled.

Grievances about labor practices, on the other hand, go through channels that are empowered to manage incidents using fair, unbiased, and non-discriminatory guidelines agreed upon under the applicable law and/ or Collective Bargaining Agreement. The employee union, for instance, can request Grievance Hearings when warranted. Another mechanism for employees is the HILDA or the Human Resources Intervention for Labor Dispute Avoidance. In both instances, complaints are investigated, documented, and discussed in face-to-face conferences with the concerned department or unit leaders. Through these mechanisms, grievances are resolved productively through mutual agreement.

In the area of marketing and advertising, PLDT's materials are submitted to and cleared by the Ad Standards Council, Inc. (ASC), a non-stock, non-profit organization composed of representatives of advertising agencies and companies with marketing departments. The ASC's objective is to promote truth and fairness in advertising through self-regulation in advertising content.

On the side of Voyager Innovations, the issue of regulation and compliance is of particular significance to its subsidiaries PayMaya and FinTqnologies, which are regulated by the Bangko Sentral ng Pilipinas (BSP). As PayMaya and FinTqnologies push digital innovations into the financial service space and allow consumers to transact using mobile phones and e-wallets, they carefully adhere to regulations put in place to protect consumers.

Financial technologies are fairly recent and constantly evolving; therefore the regulations that cover PayMaya and FinTqnologies are also evolving constantly. In fact, a host of new regulations were released in 2016 that added

compliance requirements on Anti-Money Laundering, Consumer Protection, Information Security, Outsourcing Policies, Business Continuity, and Social Media, among others. These regulations seek to protect consumers from cybercrime attacks.

A compliance team ensures that all regulations are adhered to. Said compliance team also reports periodically to the Board to manage compliance risks. Specific areas are constantly monitored and tested. These span different business functional units, such as Product Development, Activations and Sales Operations, Product Engineering, Data Center Operations, Customer Experience, and After Sales Support.

The compliance team is also in constant touch with the BSP to align with it regarding PayMaya and FintQ initiatives, especially those concerning new technologies such as cloud computing.





The global concern for sustainable and ethical procurement considers the impact of environmental, economic, and social factors along with price and quality.

The PLDT Group promotes and implements standards of relationship with its suppliers that embody the principles of the PLDT Code of Ethics as well as the corporate governance values of fairness, integrity, transparency, and accountability.

A total of 947 accredited suppliers serve the requirements of the Group, ranging from capital expenditures to operating expenditure items and services. The Group maintains relationships only with suppliers that uphold its core values in their own businesses. The Supplier Relations Policy provides the general principles being followed in vendor selection. Among the criteria for accreditation are: financial capability, technical capability, and compliance with applicable laws including those pertaining to industrial relations, environment, health and safety, and intellectual property rights.

In 2016, the PLDT Group institutionalized its sustainable and ethical procurement practice with the promulgation of its official Procurement Policy which took effect April 2016.

Among the policy's salient features are:

- The institution of a Vision Statement and a Mission Statement to represent the overarching goals of the PLDT/Smart supply chain transformation
- The creation of a senior management council to ensure, promote, and maintain the highest standards of integrity, transparency, professionalism, and ethics in all practices and activities pertaining to all procurementrelated activities, and to establish and ensure smooth implementation of policies and guidelines on all procurement matters.

Operationalizing the various features of the policy resulted in savings, improved procurement cycle, and approval of critical projects.

More initiatives are scheduled for implementation in the following months, such as the re-organization of the supply chain team, strengthening of working relationships with stakeholders, reinforcement of the development and implementation of performance management frameworks, and the rationalization of processes and procedures to increase operational efficiency and optimize resource use.

The accredited supplier base will likewise be rationalized to best practice level. An information and performance management system for suppliers is set to be adopted and is expected to bring significant improvement in data management and facilitate a semi-paperless qualification and performance assessment process.

The supply chain transformation shall be sustained through a cycle of continuous improvement until established key result areas have been met and key performance indicators are at par with global best practices.



# QUALITY OF SERVICE

## Service Access



A core goal of the Group is to provide inclusive access to telecommunication and information services. This involves removing barriers due to cost and geographical location. Everyone who needs the service must have access to it.

In 2016, the PLDT Group took major strides towards bringing the benefits of the digital life within reach of the general public.

## Providing Wi-Fi in key transport hubs

PLDT and Smart installed high-capacity Wi-Fi service in 20 major airports, two seaports, and one light rail system in various parts of the country. Each of these installations is equipped with I Gbps capacity to ensure high-quality service. This project was done in cooperation with the Department of Transportation.

All four terminals of the Ninoy Aquino International Airport (NAIA) have carrier-grade Wi-Fi service with backhaul capacity of up to 1 gigabit per second, providing up to 3,000 concurrent users of Smart Wifi a seamless digital experience while in the airport. All in all, over 30 million travelers who use the NAIA every year get to benefit from this program.

Other airports covered include: Davao City's Francisco Bangoy International Airport, Laguindingan Airport in Misamis Oriental, Bacolod-Silay International Airport, Iloilo International Airport, Roxas Airport, Zamboanga Airport, Clark International Airport, Dumaguete-Sibulan Airport, Laoag International Airport, General Santos International Airport, and Kalibo International Airport.

Smart Wifi was also installed in the Batangas International Port in Batangas City, and Calapan City Port in Mindoro.

Smart allocated about PhP1 billion for the first phase of the deployment. The amount was part of the PLDT Group's PhP48 billion capital expenditure program for 2016 which was focused on improving internet connectivity throughout the country using both fixed and wireless services.

#### Wi-Fi Rollout



## Supporting local government initiatives

Meanwhile, PLDT (through PLDT ALPHA Enterprise) has rolled out Cavite's extensive wireless access program that provides internet access to its residents for free.

Using PLDT's fiber optic network and TV white space technology from Microsoft Philippines, Cavite's Wireless Access Program was rolled out in pilot areas including Bacoor, Dasmariñas, Imus, Silang, General Trias, Rosario, and Tanza. Free Wi-Fi access was also given in the provincial capitol compound in Trece Martires City and in selected public areas such as barangay halls, public schools, and universities.

The project supports the local government's ICT initiatives to provide essential information and deliver public services to its constituents.

Also in 2016, PLDT set up interconnection links with Globe Telecom in Camarines Sur and Camarines Norte, allowing free local calls between subscribers of the two service providers. PLDT subscribers can call friends, family, and business associates in the areas without having to worry about long distance charges.

In Camarines Sur, the interconnection agreement covers PLDT and Globelines subscribers in towns and cities of Nabua, Camaligan, Canaman, Naga, Iriga City, Libmanan, Pili, Buhi, Ragay, Calabanga, Baao, Goa, Sipocot, Caramoan, and Bula. In Camarines Norte, the interconnection covers seven municipalities of Daet, Labo, Talisay, Jose Panganiban, Basud, Paracale, and Sta. Elena.

In previous years, interconnection agreements with Globelines were also set up in the provinces of Albay, Sorsogon, Ilocos Norte, Ilocos Sur, Zambales, Misamis Occidental, Iloilo, and Capiz, allowing subscribers to make free local phone calls.





## Strengthening the fiber backbone

Moreover, PLDT is expanding the footprint of its fiber-to-the-home (FTTH) service which now passes over 2.5 million homes in various parts of the country. To complement this, PLDT is also deploying new technologies that boost the data capacity of copper wire facilities to fiber-like levels.

PLDT is also extending the reach and strengthening the resiliency of its fiber backbone and distribution networks. As a result, it now has over 140,000 kilometers of fiber links, the most extensive fiber infrastructure in the country.

The expanded nationwide fiber optic network will enable even more homes to enjoy seamless and lag-free internet access from as far north as Laoag, Baguio City, Vigan City, and Tuguegarao; all the way to central and southern Luzon, including Tarlac, Cabanatuan City, San Fernando in Pampanga, and Puerto Princesa and El Nido in Palawan; down to the Bicol region to stretch to Sorsogon, Naga City, and Legazpi City.

Meanwhile, the major urban areas in the Visayas region are also fiber-ready, with the most extensive footprint in the cities of Bacolod, Cebu, Iloilo, Tacloban, and Tagbilaran. In Mindanao, PLDT's fiber network has now reached key provinces and cities including Cotabato, Davao, General Santos City, Koronadal, and Zamboanga.

## Going where the customers are

And in a continuing campaign to reach out to more customers around the country, more PLDT flagship stores were opened in 2016. By yearend, a total of eight iconic PLDT Sales and Service Centers (SSC) have been launched and are now serving customers and providing them with direct experiences of the latest products and services.

All these SSCs are convenient and comfortable spaces that are equipped with demo digital devices that customers can try out. The SSCs are equipped with an Infotouch unit that enables subscribers to inquire about their bills, request repairs, and get product and service updates on their own.

The new iconic stores launched in 2016 were in Davao del Norte, Urdaneta, Imus, Angeles City, and Santiago in Isabela.

Meanwhile, Smart launched its flagship store in SM Megamall to offer customers a digitally immersive experience. The store features, among others, a paperless integrated queuing system, a Self-Care Wall that enables customers to manage their accounts digitally, interactive screens, and demo devices.

To date, PLDT has 130 SSCs, while Smart has 114 Smart Stores, 99 Sun Shops, and 54 satellite branches.

## Bringing down cost barriers

The barrier to access due to cost is also a major issue that Smart has been steadily chipping away at. In five years, Smart has been able to effectively lower the cost of mobile data by about 97%. Since 2011, Smart has been coming up with data plan packages and offerings that benefit subscribers and allow them to enjoy maximum access at the best possible price.

Smart has further brought the digital life closer to more Filipinos with various offerings in 2016, such as Chat Abroad, the country's first chat-only data roaming subscription. Chat Abroad allows Smart subscribers to stay connected in over 130 countries via six top chat apps — Facebook Messenger, Line, Telegram, Viber, WeChat, and Whatsapp. Smart also launched Smart Travel WiFi, a pocket Wi-Fi rental service that allows Smart and non-Smart users to enjoy and share mobile internet across multiple gadgets in over 100 countries.

# PLDT Group supports 2016 national elections



Aware that national interest was at stake, the PLDT Group gave its full support to the successful conduct of the automated 2016 national elections. PLDT and Smart provided high-bandwidth voice and data connectivity to Smartmatic, which handled election automation services for the Commission on Elections. Smart and its Sun brand accounted for 60% of the pool of SIM cards used by Smartmatic to transmit election returns from precincts. PLDT also powered the DSL broadband connection of 386 canvassing sites. Furthermore, the PLDT Group donated fiber-optic cable connectivity and hosting services to the Parish Pastoral Council for Responsible Voting for its transparency servers, which supplied election results data to various media organizations. PLDT also partnered with media organizations to support their fast and digitally enabled election coverage.

What's more, Smart unveiled the Smart Life app which features easy access to mobile content such as videos, music, and daily live streaming of TV5 and FOX Sports. The app also offers daily exclusive perks for subscribers from partners. In August, for example, the Smart Life app streamed live and for free the 2016 Rio Olympics, bringing Filipinos closer to the world's biggest sports event.

## PayMaya boosts financial resilience of Typhoon Lawin survivors



PayMaya collaborated with international aid organization Oxfam to help provide disaster relief assistance to communities affected by Typhoon Lawin (Haima) through a financial inclusion program. The program involves the rapid disbursement of financial assistance through PayMaya accounts with reloadable payment cards to more than 2,000 farmers and other citizens affected by the typhoon. They can use these PayMaya cards to pay for basic needs such as food and medicine from grocery stores and other establishments that accept card payments. They can also use these cards for ATM withdrawals.

## **Enabling economic growth**

Smart also teamed up with PayMaya Philippines to launch the Smart Mastercard. PayMaya is pushing a cash-lite society where consumers, businesses, and organizations are able to reap the economic opportunities, best value, convenience, reliability, and security of digital transactions.

The PayMaya app enables anyone with a Philippine mobile number to make online purchases even without a credit card. The app generates an electronic wallet with a virtual MasterCard or Visa prepaid card (launched earlier) that users can easily top up at any of PayMaya's more than 15,000 partner establishments and agents nationwide. Users can also link physical PayMaya-issued cards to the app which can be used for face-to-face transactions. PayMaya has been adopted by organizations and companies, including schools and local government units to enable their communities with electronic cash for online transactions, bills payments, and transfers.

Meanwhile, freenet – the free mobile data platform of Voyager Innovations – provides free mobile data access to subscribers of Smart, TNT, and Sun via an enterprise-sponsored data access platform. Freenet has signed up more online banking and financial apps to the unique platform that already hosts over 70 popular brand and enterprise sites.

Without incurring mobile data charges, users of freenet are now able to access various financial services and complete their transactions via the apps of institutions like the Bank of the Philippine Islands (BPI) and Rizal Commercial Banking Corporation (RCBC), as well as of exciting financial technology startups like Lendr, PawnHero, and PayMaya.

Providing free access to digital financial services is relevant in a country like the Philippines, where only 30% of the population has regular access to the internet, and with seven in 10 adult individuals belonging to the "unbanked" sector of society.

According to the 2016 Brookings Financial and Digital Inclusion report published in July, the Philippines is the most improved nation in the world in terms of providing wider access to digital and financial services, fueled mostly by the emergence of these new digital services and platforms such as freenet.



# Service Quality and Network Improvements



Continuous improvement in infrastructure and service quality is essential to ensuring the sustainability of the enterprise. Investments are customer-centric – service quality enhancement and capability expansion are done to provide people the best possible service.

In 2016, PLDT and Smart progressively rolled out an enhanced network infrastructure in line with the three-year deployment plan they submitted to the National Telecommunications Commission. In this plan, the companies committed to deploy LTE (Long-Term Evolution) service using both existing and new spectrum to cover 95% of the country's cities and municipalities by 2018.

## Maximizing frequency use

As of end-June, Smart has beefed up the capacity of its cell sites in different parts of the country using the 1800 MHz frequency spectrum formerly assigned to the telecoms businesses of San Miguel Corporation (SMC).

PLDT co-acquired with Globe the entire share capital of Vega Telecom, Inc. which has enabled Smart to provide significantly improved mobile services to the public in the shortest time possible.

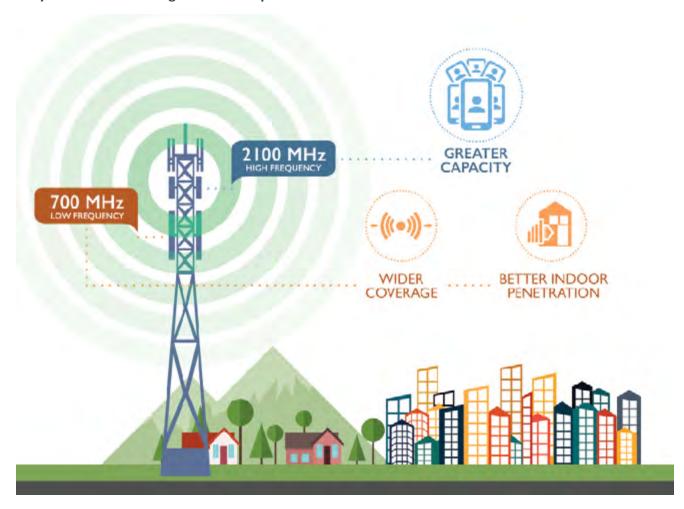
Smart is initially using the 1800 MHz frequency to enhance the ability of its GSM or 2G network to handle more calls and text messages, particularly in dense urban areas in Metro Manila, North Luzon, South Luzon, Visayas, and Mindanao.

The 2G network expansion complements Smart's growing use of the 700, 2300, and 2600 MHz frequencies also previously assigned to SMC, to strengthen Smart's mobile data service throughout the country, particularly via LTE. This is a fourth-generation (4G) mobile phone technology that currently provides the fastest wireless data service commercially available.

About 45%, of Smart and Sun subscribers are now using smartphones, up from only 30% in 2015. The majority of these are 3G/HSPA handsets, but the number of LTE handsets is rising fast as the range of available models increases and the handset prices decline.

Globally, according to United Kingdom-based analyst CCS Insight, the number of LTE devices shipped rose from 443 million in 2014 to 900 million in 2015. For 2016, LTE-capable devices were expected to account for half of all smartphone shipments worldwide, further rising up to about three quarters of the global market by 2020.

## Why Smart combines high and low frequencies



## Improving LTE performance

The number of Smart's LTE base stations has more than tripled. Combined with the use of low-band frequencies, this has boosted LTE coverage by several multiples. The indoor coverage of LTE has increased from about 10% of the service coverage area to about 66% — a significant gain given that mobile phone users tend to use data services indoors.

Smart has fired up eight LTE cell sites using the 700 MHz spectrum – five in Davao City, the others in Rizal, Cavite, and Pasig City. Smart has activated 360 cell sites with 700 MHz in 2016, initially in Metro Manila, Metro Cebu, and Metro Davao.

Smart completed the bulk of network improvement activities in the Metro Davao area which involved boosting the coverage and capacity of its mobile network, particularly for its LTE and 3G wireless data services. This was done through a combination of programs which included the installation of more base station facilities in the integrated networks of Smart and Sun, and the deployment of low-band radio frequencies for use in LTE and 3G. Low-band frequencies such as 850 MHz have longer range and better indoor penetration. These enable Smart subscribers with compatible phones to have strong and stable internet connectivity in more areas.

As a result of capacity enhancements, the average download speed of Smart's 3G service in Metro Davao has increased nearly six times to about 6 Mbps. LTE speed has gone up more than 4.5 times to over 17 Mbps, based on internal field tests.

The Asia Network Quality Report of J.P.Morgan Securities shows that the average LTE download speed in the country went up to 8.24 Mbps in the last quarter of 2016, from 7.27 Mbps in the previous quarter. This is ahead of fellow archipelagic country Indonesia's LTE average speed of 6.66 Mbps for the same period.

The same report, which cited crowd-sourced data gathered by wireless coverage research firm OpenSignal, also found that among Philippine carriers, Smart posted the highest average LTE download speed at 9.17 Mbps. LTE download speeds across areas ranged from 7.39 Mbps in the Visayas to 9.99 Mbps in Metro Manila. Smart also took the lead in the National Capital Region for 3G, with average download speed at 2.85 Mbps.

Constantly looking ahead to anticipate the ever-increasing demands of customers, Smart has been conducting ultrahigh speed wireless data capacity tests using the Carrier Aggregation capability of LTE-Advanced (LTE-A). Working with technology partner Huawei, Smart has achieved test data speeds of 1.4 Gbps by successfully combining five frequencies or component carriers.

As Smart boosted its network around the country, it also kept an eye on the future of mobile technology. In December, Smart and Nokia successfully carried out the country's first 5G showcase over a live network at the Nokia Technology Center in Quezon City, achieving 5G speeds of 2.5 Gigabits per second using 100 MHz with latency of just 1 millisecond. This milestone is part of Smart's roadmap to be 5G-ready by 2020 through strategic investments in infrastructure today.

## **Bolstering customer experience management**

The wireless business has been purposefully utilizing market intelligence to develop its 2020 roadmap. It regularly conducts Customer Satisfaction Measurement and Net Promoter Score (NPS) tracking research to monitor customer satisfaction drivers and identify customer pain points that need to be addressed. Through face-to-face interviews that are guided by structured questionnaires, comprehensive surveys using offline TAPI (tablet-assisted personal interviews) are conducted on a sample population

from Metro Manila, Rizal, North Luzon, Central Luzon, South Luzon, Visayas, and Mindanao on a semi-annual basis. The regular surveys have allowed the business to explore strategies for the continued improvement of its NPS which is calculated by subtracting percentage of detractors from percentage of promoters.

Surveys have also been conducted by PLDT as it sought to constantly improve customer experience. PLDT's Customer Experience Management Center conducts year-round performance monitoring across all touch points and all customer segments. Complementary internal performance metrics with feedback emanating directly from actual customers give the company a 360-degree approach to identifying pain points and implementing a closed-loop feedback process. With this, the company is then able to develop real, long-term solutions to address customer problems.

Anchored on global standards of customer advocacy measurement, these studies allow PLDT to benchmark itself with other telcos and digital companies globally. These studies are supplemented by various customer journey mapping initiatives, and annual local competitive benchmarking studies conducted by the PLDT Market Research team.

To date, these studies have contributed significantly to the shortening of provisioning lead times, enhancements

## Smart's Market Research for 2016

RESEARCH	OBJECTIVES	FREQUENCY	
	Monitor satisfaction of Smart mobile customers towards its brands relative to that of competition.		
Mobile CSAT/NPS - Mobile Customer Satisfaction and NPS Measurement Research	Compare satisfaction levels on each stage of subscription quarter on quarter.	2x a year - Q2 and Q4	
	Measure NPS or Net Promoter Score to gauge loyalty of mobile subscribers towards their network provider:		
BB CSAT/NPS - Portable	Monitor satisfaction of Smart portable broadband customers towards its brands relative to that of competition.		
Broadband Customer Satisfaction and NPS Measurement Research	Compare satisfaction levels on each stage of subscription quarter on quarter.	2x a year - Q2 and Q4	
i icasui citiciti Nescal (II	Measure NPS or Net Promoter Score to gauge loyalty of portable broadband subscribers towards their service provider.		

in internal technical and process standards, and the identification and adoption of new tools to enhance customer experience.

Furthermore, in 2016, PLDT Enterprise enhanced customer experience by continuously upgrading the competencies and skills of customer service representatives, streamlining customer handling processes, providing customer feedback and advisories, and expanding existing customer touch points through digital/online channels and self-care facilities.

Meanwhile, PLDT Home completed system upgrades that enable real-time posting of bill payments made in accredited payment centers. It also put more intelligence in its Hotline's Interactive Voice Response System (IVRS) such as auto routing to proper agents to handle specific concerns. PLDT Home also augmented its Hotline manpower complement to meet global answer level and service level standards, as well as expanded its Customer Panel (launched in 2015) to continuously crowdsource ideas/solutions from customers.

# Establishing mutually beneficial industry partnerships

PLDT partnered with NTT Communications Corporation to strengthen its connectivity with NTT Com's industry-leading Tier I Global IP backbone. This is an ultrahigh-capacity I00 Gbps link that allows PLDT to carry large volumes of global IP traffic. With the I00 Gbps ultrabandwidth connectivity, PLDT is able to handle traffic bursts and scale up faster to accommodate subscriber demands. The NTT Com Global IP Network Service provides high-speed, high-capacity IP connectivity covering Asia, North America, Europe, and Oceania.

Also in 2016, PLDT established a milestone bilateral peering agreement with Globe Telecom that now allows direct local exchange of traffic between PLDT's Philippine Internet Exchange (PhIX) and Globe Internet Exchange (GIX). This keeps local internet traffic within the country, and results in marked improvements in fixed broadband and mobile internet services. Industry partnerships such as this pave the way for improvement in internet services throughout the country for the good of all users.

Meanwhile, PLDT is working with global internet players such as Google, YouTube, Facebook, and Microsoft to maximize local caching and store more popular internet content in the Philippines so Filipinos can access it more quickly. Caching is important to improve access speeds because about 90% of internet content frequently accessed by Filipinos come from overseas.

### **Building state-of-the-art data centers**

Complementing these partnerships with infrastructure, PLDT set up the country's most extensive network of data centers which are seen as the key building blocks of the digital economy.

To date, ePLDT has nine data centers with an unmatched combined rack capacity of more than 7,000. Soon, the company will inaugurate its 10<sup>th</sup> data center in Cebu City, also the second in the region, elevating its rack capacity to more than 9,000. These data centers are strategically located across the country to serve the needs of small, medium, and large enterprises across various industries, including banking, financial services, outsourcing, telecoms, and gaming.

The biggest VITRO Data Center launched in 2016 was the VITRO Data Center in Makati City with almost 3,600 rack capacity. As part of the VITRO network, VITRO Makati also serves as a carrier-neutral Internet Exchange facility that provides numerous IP-peering services, enabling access to local and international content. It is equipped with systems and facilities to guarantee continuous operations, ensuring that businesses can utilize robust and scalable digital infrastructure, as well as world-class 24/7 technical support capabilities.

Set up by ePLDT, the VITRO Makati Data Center sits on a nearly two-hectare property without seismic faults within its proximity. The earthquake-resistant design used special architectural techniques and material planning to withstand earthquakes up to intensity eight on the Richter scale. It also offers one of the most secure structures in the Philippines with an eight-layer security design. Every major component of the facility is configured with redundant counterparts.

VITRO Makati is also a Nexcenter-certified facility, allowing its clients to use the globally standardized Nexcenter services of world leader NTT Communications at some 140 locations in 84 cities of 19 countries, in addition to NTT Com's Arcstar Universal One private network service, which is already available in the Philippines and which is largely used by the country's business process outsourcing (BPO) industry.

### Developing advanced hybrid fiber technologies

PLDT is bringing fiber-based broadband services to the next level by deploying the latest advanced hybrid fiber technologies that can deliver super-fast broadband service through regular phone lines in buildings and residences. The deployment comes after the successful trials of two advanced hybrid fiber technologies, one by KT

Corporation (formerly known as Korea Telecom) called GiGa Wire, and the other by Huawei Technologies Co. Ltd. called G.fast. Both are capable of providing data speeds of up to 600-700 Mbps per user, depending on the length of the local copper loop.

These hybrid technologies offer a way to take full advantage of PLDT's extensive telephone network in order to deliver fiber-powered broadband services. These technologies complement very well the ongoing rollout of fiber-to-the-home (FTTH) connections.

Both GiGa Wire and G.fast work by connecting buildings and dwellings with fiber optic cables, and using special equipment to enable the internal copper wiring of these structures to deliver fiber-like data speeds. This new initiative is part of PLDT's broad effort to make fiber-powered, high-speed connectivity more widely available to the public, and to build a Gigabit Society. This is a society where high-bandwidth, low-latency digital services in homes, businesses, healthcare services, utilities, and schools become an integral part of daily life.

Initial plan calls for deploying Giga Wire and G.fast solutions in over 500 buildings in different parts of the country in 2017, split between residential and office buildings. An additional 1,600 buildings are being lined up for 2018 and 2019. Total investment in this three-year deployment will amount to about PhP2 billion.

# PLDT SME Nation rolls out digital solutions for bus operators



In line with the government's plans to modernize public bus transportation, PLDT recently rolled out a series of digital solutions that would benefit bus operators through efficient tracking of their transport units, on-board security surveillance, monitoring of real-time sales via an e-ticketing system, and Wi-Fi connectivity inside the bus premises for passengers to enjoy. Called the PLDT SME Nation SmartBus project, this offering helps bus operators comply with the Land Transportation Franchising and Regulatory Board circular that requires the installation of global positioning system (GPS) monitoring devices in buses to help track their movement and promote commuter safety.

## Innovation in Products and Services



Nurturing the spirit of innovation that generates positive impact on the triple bottom line is key to success. Advancing ideas and technologies that empower people to improve their lives and make the world a better place for all is the goal of the PLDT Group.

As the PLDT Group began executing a strategic digital pivot, it opened up opportunities to introduce a host of innovations that works in the digital ecosystem.

## Innovations for the home and enterprise markets

PLDT's Smart Home is an innovative, reliable, and family-friendly suite of services that advances the security, convenience, and entertainment experiences at home. These products and services include the home monitoring system Fam Cam, the multi-functional kid-friendly gadget Smart Watch, and the cyber-safety solution Family Zone, all best used with the PLDT Telpad.

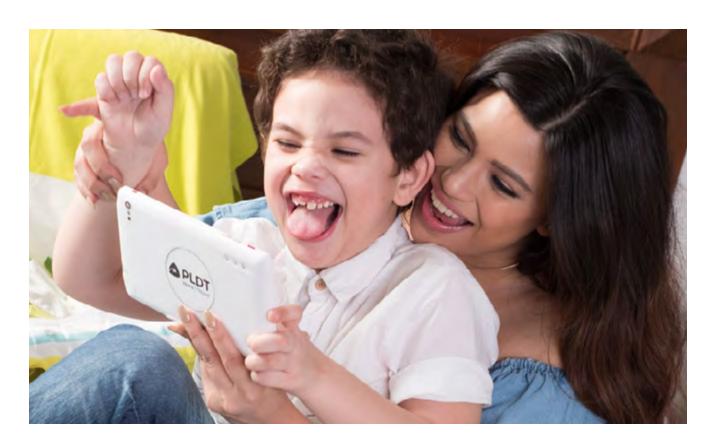
PLDT Smart Home is powered by PLDT Home Fibr which delivers the Philippines' first and fastest internet of up to 1 Gbps, which allows for high-speed browsing of multiple websites. It is also the country's first symmetrical speed service with equal upload and download speeds. PLDT's Smart Home service is likewise made possible by key alliances with new partners, including U.S.-leading video streaming platform Roku Inc., global internet television network Netflix, e-commerce giant Amazon, and leading over-the-top (OTT) content platform in the Philippines, iWant TV.

Also in 2016, PLDT ALPHA, in partnership with Tata Communications, launched the country's first Unified Collaboration solution — a full-featured brand-agnostic virtual conferencing platform. This simple cloud-based solution enables enterprise-wide collaboration on multiple devices, creating virtual meeting rooms that can accommodate up to 100 participants simultaneously. As enterprises expand globally with an increasingly mobile workforce, PLDT is able to offer them a future-forward communication solution that is accessible and reliable.

The PLDT Group takes pains to nurture and promote innovative thinking, and invests resources for developing new ideas.

For instance, PLDT opened another Innovation Laboratory (Innolab) in 2016, bringing the total to seven Innolabs earnestly doing research and development as well as training and testing on new generation technologies and applications. The latest Innolab was opened at the Makati Central Business District, and is now host to a mix of techies from the telecom industry, academe, software and gaming industry, and government service providers who are all engaged as stakeholders of the digital economy.

And as part of its efforts to improve the resiliency of businesses in the country, ePLDT introduced its Cyber Security portfolio to simplify security solutions and expertise, and incentivize businesses to give security the priority it deserves. ePLDT Cyber Security Solutions is a suite of security services that covers devices, systems, processes, and cyber security expertise. It provides the right skills needed to protect vital IT infrastructure from security risks, evolving threats, and malicious



software attacks. As part of the launch, ePLDT offers free vulnerability assessment, highlighting the necessity of businesses to be proactive as regards the whole cybersecurity spectrum.

Another big step towards helping enterprises grow is being upgraded to Amazon Web Services (AWS) Direct Connect Partner status. As a Direct Connect Partner, ePLDT provides enterprises a direct, secure, and reliable connection between their data center, office, or co-location environment to Amazon Web Services locations in true hybrid cloud fashion. This, in turn, enables enterprises to reduce their data transfer costs, increase their bandwidth throughput, and enjoy a more consistent network experience compared to internet-based connections.

With its AWS Direct Connect Partner status, ePLDT not only provides safe and secure data transit, but also delivers real cloud flexibility. ePLDT enables enterprises to easily scale their connections depending on their business requirements. It can support bandwidth requirements from as low as 2 Mbps to as high as 1 Gbps for bandwidth-heavy workloads.

ePLDT launched other innovative services under its Digital Engagement umbrella, one of which is its Enhanced Visitor Experience (EVE) app, a fully digital and interactive visitor registration system designed to help companies process incoming and outgoing traffic. EVE offers a digital end-to-end visitor-reception-host interface system through automated visitor information recording and extraction.

Part of its Digital Engagement portfolio is the ePLDT Web Builder, a cloud-enabled website builder that allows users to create awesome websites that are optimized for different devices such as personal computers, tablets, and smartphones. This easy-to-use editor offers more than 50 templates.

## Promoting the digital life

Meanwhile, Smart released the enhanced version of its My Smart application, enabling subscribers to manage their postpaid and prepaid accounts virtually anywhere, view their account usage in real time, and buy load and add-ons through the app.

To introduce more Filipinos to the benefits of the digital life and enhance the experience of those who are already digital-savvy, Smart launched the Smart Life app and Smart Travel WiFi. Smart also expanded its suite of digital content with a milestone partnership with multimedia giant ABS-CBN for iWant TV, the latter's streaming service for TV shows, movies, and other exclusive digital content.

All Smart subscribers enjoyed free access to the iWant TV app for every purchase of GigaSurf products, allowing them to catch their favorite local TV series and shows on the go. Smart is set to make it easier for subscribers to pay for their iWant TV subscription – by using prepaid load or charging to their postpaid account.

Marketing efforts in 2016 included prepaid and postpaid offers which made mobile internet affordable for the average consumer. An example of this is GigaSurf50, with 1 GB of open access data allowance plus 300 MB for access to iflix, Spinnr, YouTube, and other streaming services for PhP50, valid for three days. The data allocation can also be shared with friends and family through the PasaData innovation.

Smart also teamed up with PayMaya Philippines to launch Smart Mastercard in October 2016. Mobile users who download the PayMaya app on their Android or iOS phone and register with their Smart, TNT, or Sun number may instantly get a virtual Smart Mastercard. They can load this up at PayMaya load-up centers and use the card in the more than 36 million merchants worldwide that accept Mastercard. Smart subscribers who download the app can also get as much as a 10% discount on Smart Prepaid load when they buy using the PayMaya app, as well as enjoy exciting perks from partners.

## Enabling digital and financial inclusion

Meanwhile, the Voyager group made waves in 2016 and kept its momentum as the leading provider of digital services platforms for both consumers and enterprises.

Voyager products in the market today promote digital and financial inclusion. These include digital payments app PayMaya; sponsored data platform freenet; leading mobile money remittance network Smart Padala; digital lending platforms Lendr, Mobile Loan Saver, and Pera Agad; digital monitoring and evaluation tool ROVE; mobile marketing platforms under hatch; messaging platforms Talk2 and Chikka; and digital commerce platforms Tack This!, Voyager eCommerce Marketplace, and Takatack.

Voyager's freenet (formerly SafeZone) mobile app reached over one million downloads from Google Play Philippines. Through its sponsored data model, freenet is enabling more than 70 brands and enterprises to reach more customers, as well as giving users access to various financial services to complete their transactions. Freenet connects its users to financial institutions such as BPI, RCBC, Lendr, PawnHero, and PayMaya.

And in another first for digital banking, FinTqnologies collaborated with Land Bank of the Philippines and RiteMED under the LANDBANK Mobile Loan Saver program, allowing borrowers to allocate a portion of their loan proceeds to the purchase of maintenance medicines at discounted prices.

Meanwhile, PayMaya Philippines further strengthened its leadership in digital financial services. The PayMaya app remains the top mobile finance app in Google Play Philippines, posting over 260% growth in users year-to-date.

In 2016, PayMaya introduced its bills payments feature through a partnership with Bayad Center, reinforced its partnership with UberTechnologies, Inc. to offer promos, and collaborated with PayPal to make it more convenient for Filipinos to withdraw their PayPal funds with reduced fees.

In October, PayMaya was recognized as the World's Best Online Payments Solution at the 9th Annual Emerging Payments Awards in London. Beyond being a digital payments solution, PayMaya also addresses the pain points of convenience, affordability, and security, allowing everyone the opportunity to enjoy the benefits of the digital life.



## **RESPONSIBLE OPERATIONS**

# Resource Efficiency in Operations



Efficient use of resources is an essential part of business sustainability, as reduction in consumption means reduction in cost as well as in carbon footprint. Operational resource efficiency focuses on what can be achieved at the operational and team level by building a culture with sustainable thinking. Closely related to resource efficiency is the management of impact - the application of technologies and strategies to improve efficiencies and mitigate adverse effects of operations on the community and environment. In 2016, PLDT and Smart started implementing a comprehensive, organization-wide resource monitoring system to capture a robust baseline data. This system helps the Property and Facilities Management (PFM) department to streamline systems and discover new ways of introducing efficiencies and savings.

The PFM department continuously implements conservation measures and finds opportunities to improve energy efficiency in all workplaces, with focus on the following electricity and cost drivers:

- Facilities Management (FM) initiatives
- Broadband connection migration
- Co-locations of subsidiaries equipment/loads
- Additional telecom loads

In 2016, PLDT attained 12.25 million kilowatt-hours (kWh) of electricity savings, with actual consumption of 199.33 million kWh compared to the budgeted target consumption of 211.58 million kWh. The electricity savings equate to 6.2 tonnes of Carbon Dioxide equivalent (CO2e) mitigated. In comparison with 2015 actual electricity consumption, an increase of around 840 thousand kWh was recorded in 2016 due mainly to additional electricity accounts/load.

FM initiatives pertain to the energy conservation measures of the Facilities Management Division. Measures implemented in 2016 were: the shutdown of air-conditioning units in work areas with lesser cooling demands as a result of operational changes, replacement of old and inefficient air-conditioning units, reduction of elevator operations based on building occupants' schedules, chiller startup operation adjustment, strict switching-off of lights and air-conditioning units when not needed, and other reductions of air-conditioning operations and lighting arising from the retirement of old legacy telecom equipment. These initiatives generated a total annual estimated savings of 18.5 million kWh (equivalent to 9.3 tonnes CO2e).

Meanwhile, the broadband connection migration was completed in 2016 and provided an additional annual estimated reduction of 6 million kWh (equivalent to 3 tonnes CO2e).

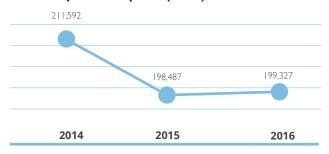
PLDT also took advantage of the benefits offered by the Manila Electric Co. (Meralco) Peak/Off Peak (POP) Program. Peak periods are the hours of the day when the demand for electricity and energy costs are much higher than average. On the other hand, when plants require lower electricity consumption and incur less cost, it is an off-peak period. With this pricing technique, corporate partners can lower generation costs by operating at full capacity during pre-defined off-peak hours — the time when electricity is cheapest.

In 2016, a total of 41 facilities were under the POP Program and yielded consolidated electricity cost savings of PhP5.9 million.

At the same time, PLDT participates in the Retail Competition and Open Access (RCOA) system of the Department of Energy and the Energy Regulatory Commission. Under the RCOA regime, electricity consumers using an average of at least one megawatt a month will be converted from being "captive" customers of distribution utilities such as Meralco to so-called "contestable customers" (CCs). The latter can opt out of their local distribution utility and choose another power supplier from among registered members of the Wholesale Electricity Spot Market. Suppliers, in turn, provide packages tailored to customer needs and preference. In 2016, Sampaloc Manila International Toll Center was able to attain electricity savings of PhP2.9 million.

Meanwhile, the Smart cell site network's fuel purchases, which were already reduced by 37% in 2015, went down by another 4% in 2016. This represents additional savings of about PhP69.9 million for the year. This was achieved through genset rationalization in sites with below 30%

## **Electricity Consumption (kWh)**



## **Broadband Connection Migration**

Area	No. of Switches	Cost Savings (PhP)	Annual kWh Savings
Metro Manila	16	37,230,668	4,773,163
Luzon	6	724,897	92,936
VisMin	15	9,193,686	1,178,678
TOTAL	37	47,149,251	6,044,777

Conversion rate: P7 80/kWh

## Electricity, Fuel, and Refrigerant Consumption

		P	PLDT Smart		nart
		Consumption	GHG Emission (tonnes CO2e)	Consumption	GHG Emission (tonnes CO2e)
	Electricity	717.58	100,136.76	1,496.17	208,787.61
Energy <sup>2</sup> (TJ)	GenSet Fuel	14.95	1,096.89	364.42	26,743.23
	Vehicle Gasoline	38.10	2,724.77	25.06	1,791.98
	Vehicle Diesel	83.04	6,057.99	54.98	4,010.58
Total Energy Cons	sumption	853.67		1,940.63	
Refrigerant <sup>3</sup>	HCFC-22	5,233.67	9,211.26	2,786.00	4,903.36
(Kg)	HCFC-123	272.16	21.50	5.00	0.40
	R410A	22.60	47.19	103.00	80.55
	HCFC-141b	1,465.97	1,146.39	72.00	56.30
	HFC-134a			121.00	157.30
Total GHG Emissi	ons	-	120,442.75		246,531.31

3 Smart data on Refrigerant excludes network/cell sites

I Smart electricity consumption includes Voyager 2 Conversion for fuel use: I L Diesel = 1.555 L Gasoline Gallon Equivalent (GGE); I GGE = 33.4 kWh; I kWh = 3,600,000 Joules

genset capacity, and the replacement of gensets with endof-life service with brand new units. Smart also regulated the volume of fuel delivery per genset capacity to avoid potential fuel spillage in storage. Moreover, Smart installed pads and catch basin structures in 223 sites to contain potential fuel leaks or spills, preventing soil and underground water contamination. Construction continues in the remaining sites, with target completion set in 2017.

### **B**efore



## After



Акоо	Sites	Tes	sting	Domanica
Area	sites	Stack Sampling	Ambient Sampling	Remarks
Metro Manila	35	35	0	Compliant
Luzon	10	9	1	Compliant
VisMin	7	7	0	Compliant

And in support of the Clean Air Act, PFM and Wireless Facilities Management required 52 facilities equipped with 300 kW and above standby generator sets to undergo stack and ambient emission monitoring. The samplings were performed through air sampling firms recognized by the Department of Environment and Natural Resources (DENR). The air monitoring program is performed periodically in adherence to DENR regulations. All of the 52 sites yielded results compliant to DENR standards.

Aside from air emission management, waste water management for large buildings is also given equal importance. A major project completed in 2016 was a sewage treatment plant for two facilities, done with the assistance of partner consultant Maynilad Water Services. The new treatment plant now uses a Sequencing Batch Reactor technology that improves effluent quality.

## **Sewage Treatment Plant**





Environmental Aspect		PLDT	Smart
Water Consumed (m³)	Water District	496,348.00	136,238.00
	Deepwell Source	19,093.60	360.00
	Bottled Drinking Water	3,976.88	4,223.00
	Rainwater Reservoir	5.65	20.00

Environmental Aspect	PLDT	Smart
Diesel Engine Vehicles	1,815	702
Gasoline Engine Vehicles	739	427

PLDT and Smart have started to capture a wider array of data on resource consumption. The more comprehensive information on water consumption gathered in 2016 will serve as baseline data against which progress on conservation efforts will be measured.

PLDT increased its service vehicle complement to support the aggressive implementation of its digital transformation, acquiring 140 new units in 2016. On the other hand, Smart's continued vehicle rationalization brought its service vehicle complement down even as it acquired 46 new units.

Both PLDT and Smart phased out old vehicle models (2007 and 2008), with PLDT disposing of 534 units and Smart disposing of 62 units. These are sold to interested employees through bidding. Should there be no bidders, these are sold to accredited external buyers.

PLDT and Smart re-fleeted with vehicles that use CRDI technology engine, which is designed for less carbon emission. The total number of vehicles barely changed, but with newer vehicles, fuel efficiency and vehicle safety are improved.

Environmental A	PLDT	Smart <sup>1</sup>	
Solid Waste/	Biodegradable	207.97	56.93
Garbage Disposed (ton)	Non-biodegradable	152.82	116.44
(ton)	Recyclables (assorted - paper, plastics, cans)	183.11	93.05
Hazardous Waste	Genset Used Oil <sup>2</sup> (liter)	8,118.00	3,506.00
	Batteries (ton)	293.21	71.95

- I Data excludes network/cell sites.
- 2 Solid Waste and Genset Used Oil data cover Smart-Property and Facility Management (PFM) sites only.

Waste segregation is practiced by, and advocated as a responsibility of every employee. PLDT has been able to collect and sell 34 tons of paper, 364 tons of metal, and 11 tons of plastic to junk buyers.

Different waste bins are allocated at different places. Wastes from offices are collected on a daily basis and are temporarily stored in the designated staging areas before being eventually picked up by local garbage collectors.

PLDT had sought and obtained special permission from the Environmental Management Bureau to develop staging areas where hazardous waste such as used batteries and used oil and fluorescent lamps could be taken by DENR-recognized transporters and treaters in a cost-effective manner. Since



each individual facility generates only small amounts of waste, collecting them in bulk in one area will require less cost and resources compared to collecting them on an intermittent basis across many facilities.

In 2016, ten Hazardous Waste Staging Facilities were completely constructed. Five of these were issued with Hazardous Waste Registration IDs by respective Environmental Management Bureau Regional Offices. Permit requests for the remaining facilities are pending.

Meanwhile, used lead-acid batteries (ULABs) are turned over to the Balik Baterya Program of Motolite and the Philippine Business for Social Progress (PBSP) for proper recycling. The funds derived from the turnover of used batteries are utilized to support CSR projects.

PLDT and Smart are the top donors of the Balik Baterya Program, with PLDT contributing a total of 2 million kilos of ULABs amounting to PhP48 million worth of donations as of December 31, 2016. This was used to fund various donations, such as the two classrooms for special education students in Banquerohan Elementary School in Legazpi City.

Another major initiative is a resource rationalization program that maximizes the merged assets of Smart and Sun Cellular. The project made it possible for Smart to dismantle redundant towers in a common area.

This brought down rental costs, water and energy consumption, and hazardous waste generation (such as used oil and batteries).

Old towers were also converted into the more efficient Self Supporting Towers which require less space. The old towers were decommissioned by a DENR-accredited scrap company. Sale of the scrap materials amounted to about PhP20 million.



In protecting critical assets and infrastructure, the Group ensures the reliability and quality of its service. Improving capabilities to prevent fraud, criminal attacks, and potential damage is a priority, especially in a developing economy that relies deeply on the Group's services.

In response to constantly evolving threats to critical industries imbued with public interest like telecommunications, the organization has established a consolidated asset protection unit that manages all physical security threats across the PLDT Group. This synergized unit provides both cost and operational efficiencies by leveraging on best practices from the different fields of fixed and wireless asset protection, as well as utilizing economies of scale in securing the resources of the Group which are deployed nationwide.

A unified and consistent Corporate Asset Protection Policy was established as early as 2012, and is subject to regular review and refinement to ensure that it properly addresses emerging and evolving threats through proactive threat mitigation and response mechanisms. A key part of that policy involves protecting critical assets through the Defense-in-Depth principle of establishing layers of physical security, which utilizes a combination of electronic access controls, integrated closed-circuit TV systems (CCTV), intrusion detection alarms, 24/7 security monitoring command center, interspersed physical security barriers, and the deployment of trained security personnel. More importantly, PLDT continuously explores and tests next-generation physical security systems to ensure that its security systems are updated and geared to deal with emerging security threats.

The company likewise gives equal focus on the strategic side of security risk management by partnering with public and private institutions to improve the effectiveness of security coverage. A key pillar of this strategy is the close working relationship PLDT has with law enforcement agencies as it seeks to prevent, investigate, and prosecute criminal acts against the company, its customers, and other stakeholders. The company likewise cooperates with authorities on broad matters of critical infrastructure resiliency and national security for such instances as risk-exposed large public events as well as disaster and emergency response operations.

To help secure its numerous outside-plant facilities of cell towers and remote transmission equipment, PLDT partners with local government units and communities to act as force multipliers in protecting the facilities and in responding to security incidents. This program is centered on working with and educating communities to increase awareness of the mutual benefits of securing facilities to maintain essential communication services for all.

PLDT also strategically works with industry colleagues and peers against common threats of equipment/cable theft, unauthorized tapping of commercial power, fraudulent misrepresentation by unauthorized personnel, and other such criminal behavior. PLDT has led efforts in coordinating and sharing business intelligence and best practices on threat mitigation that benefit the industry, as a whole, by coordinating security operations against these common threats.



PLDT has regularly improved on the effective utilization of resources through its extensive use of data analytics. Data analytics has proven to be a potent intelligence tool which helps in pinpointing trends and incident clusters that influence the design of operational security plans and deployments. Incidents are tracked over time and resources are then appropriately deployed based on emerging and predictive trends, such as having variable security personnel deployments based on seasonality of threats.

Moreover, root cause analysis is applied to security incidents so that proper attention is given to preventing or mitigating the cause of the incident rather than merely reacting and responding to the occurrence of each incident. Utilizing this model, the company has achieved double-digit decreases in security incidents year-on-year since the security analytics program was started in 2013.

Knowing that having highly trained and competent personnel is critical in the effective implementation of this strategic asset protection program, PLDT gives equal attention to: (a) providing training for its organic security personnel to prepare and equip them with the relevant

skills to ensure that they can perform their roles during critical situations, which include investigation, surveillance, intervention, and case management for the court cases against criminals who steal from or cause damage to company property and operations; and (b) the selection of competent partner security agencies that will act as first-line responders and implementers of the security program.

Lastly, in meeting the challenge of providing enhanced response capabilities for natural calamities that increase in both frequency and intensity, PLDT has established up to 20 trained Search-and-Rescue units deployed nationwide, with each unit having five rescue and security personnel. Together, they have been able to provide both rescue and relief services not only to company employees but even to the public since their establishment in 2012.

# Customer Data Privacy and Information Security



How to handle customers' data conscientiously and ensure information security are material issues of high priority for the industry. Leveraging on technological and organizational strengths is key to managing this critical sustainability issue.

The emerging threats in the cybersecurity landscape are challenges that the PLDT Group takes seriously. It responds to these through active protection of customer privacy and information. It defends the network against cyberattacks and diligently ensures that critical communication services are available at all times

It has Information Security Management Systems that are guided by ISO27001 standards and are ISO27001-certified (covering Organizational Security, Technical Security, and Physical Security). Policies and procedures are in place to ensure that customer information is protected from internal and external compromise. Security hardware and software protect the perimeter side of the network, down to the innermost part of the network and servers. The Group implements 11 layers of physical security access in combination with CCTV to monitor all physical activities.

As part of efforts to comply with the Data Privacy Act of 2012, an Information Asset Protection and Assurance (IAPA) unit is tasked to implement information security policies, standards, guidelines, processes, procedures, and best practices for PLDT, Smart, and Voyager.

This special unit identifies and manages vulnerabilities, threats, and incidents that affect infrastructure. It also helps develop appropriate policies and guidelines. It is also tasked to educate employees about their roles and responsibilities in keeping the company's information assets safe and secure.

In protecting customer information, the PLDT Group uses multiple layers of control that detect, deter, and prevent cyberattacks. There are controls in all critical supporting technology including those used in the networks, servers, workstations, and even the mobile phones of employees. Working on the assumption that no system is perfect, it employs security measures that complement each other in cases of error, hedging against system failures.

Within ePLDT, the first layer of control is the ePLDT Cyber Security Incident Response Team (eCSIRT) composed of the Cyber Security Team, IT Security, Network, Systems, Cloud, Customer Experience Management, Database, and Defense-wide Information Assurance Program teams. The eCSIRT monitors everything and responds to incidents within five minutes.

Solutions and networks are subjected to the most stringent security standards available, set by the National Institute of Standards and Technology, Open Web Application Security Project, SANA Institute, Cobit, and the International Organization for Standardization (ISO). For instance, the PayMaya card issuing business successfully obtained its Payment Card Industry Data Security Standards certification, exhibiting compliance with industry-grade standards.

Moreover, the PLDT Group has taken significant steps to improve the capability of the telco network to ward off cybersecurity attacks, hardening perimeter and network defenses through regular vulnerability assessment and penetration testing exercises. Network resiliency is also enhanced

# SIGNING OF MEMORANDUM OF UNDERSTANDING BETWEEN PHILIPPINE NATIONAL POLICE, SMART COMMUNICATION INC NURRAL COMMUNICATION I

## PLDT, Smart provide text service & connectivity to PNP

Text Bato is the 24/7 hotline project of the Philippine National Police Community Relations Group that allows ordinary citizens to report crime incidents and law enforcement concerns directly to police chief director Ronald "Bato" dela Rosa. Smart subscribers can text relevant police concerns by typing BATO (space) their message then sending to 7-444-2286. Aside from enabling this service, PLDT also pledged to support the PNP in protecting the privacy of participating subscribers and in ensuring the confidentiality of each message transmitted to the text hotline. PLDT is also backing up the hotline system by providing internet connectivity at the Text Bato Operations Center. This will provide round-the-clock support for verifying text reports and mobilizing speedy response.

through a disaster recovery program implemented across critical systems and infrastructure to minimize risk of service unavailability.

The dedicated Cyber Security Defense team of the IAPA leads continuous initiatives to enhance the network's capability to prevent, detect, and contain security incidents (such as malware email, and Distributed Denial of Service attacks), as well as to reduce spam and malicious traffic that affect customer experience, particularly in terms of speed and security. The PLDT Group also engages cybersecurity firms with sufficient depth and breadth of experience and expertise in addressing emerging security risks.

Investment spending on security has increased significantly, funding initiatives to further develop security processes in the following 10 cybersecurity domains:

- Governance, Compliance, and Organization
- Data Protection
- Security Risk Management
- Identity and Access Management
- Incident Response
- Third Party and Vendor Management

- Host and Endpoint Protection
- Application, Database, and Mobile Protection
- Network, Cloud, and Data Center Protection
- Security Awareness and Training

An information security and awareness program is also maintained and monitored regularly. The Corporate Information Security Policy and Standards, which is regularly reviewed and updated, is consistently promoted and disseminated through training programs.

Additionally, employees within PLDT and Smart are required to undergo an annual refresher course on information security. In 2015, there was a 90% compliance in attendance among PLDT and Smart employees. Because of this, a trend of marked improvements in anti-virus and antispam protection has been observed.

The PLDT Group also has a Data Privacy Office tasked to spearhead initiatives for compliance with the Data Privacy Act, reinforce adherence with privacy policies and standards, and manage standards and policies concerning the handling of customer information and data.



# **SOCIAL RESPONSIBILITY**

# Attracting and Retaining Talent



Sustainably engaged employees are enabled and provided an environment of growth and advancement.

People programs and initiatives that attract the right person with the right skills for the right job also influence longevity in the organization.

As the PLDT Group continues its digital transformation, people management becomes crucial to maintaining efficiency and effectiveness of the implementation of its strategies and plans. Employees are major stakeholders of the company's sustainability strategy, fully involved in moving the initiatives forward.

The number of total employees across the PLDT Group in 2016 was 14,451, with nearly half employed by PLDT and Smart.

## **Breakdown of Employee Data**

BY GENDER	<b>FEMALE</b>	MALE	TOTAL
PLDT	2,367	4,490	6,857
	(35%)	(65%)	
Smart	3,270	3,374	6,644
	(49%)	(51%)	
Voyager	290	371	661
	(44%)	(56%)	
ePLDT	95	194	289
	(33%)	(67%)	

BY AGE GROUP	UNDER 30	30-50	OVER 50	TOTAL
PLDT	866	3,348	2,643	6,857
	(13%)	(49%)	(39%)	0,007
Smart	2,316	4,214	114	6,644
	(35%)	(63%)	(2%)	-
Voyager	364	292	5	661
	(55%)	(44%)	(1%)	
ePLDT	78	194	17	289
	(27%)	(67%)	(6%)	
BY REGION	LUZON	VISAYAS	MINDANAO	TOTAL
PLDT	6,029	507	321	6,857
	(88%)	(7%)	(5%)	-
Smart	5,836	439	369	6,644
	(88%)	(7%)	(6%)	
Voyager	654	3	4	661
	(99%)	(0.5%)	(0.6%)	
ePLDT	276	11	2	289
	(96%)	(4%)	(0.7%)	

BY RANK	OFFICERS	EXECUTIVES	MANAGEMENT	RANK AND FILE	TOTAL
PLDT	58	447	5,156	1,196	6,857
	(1%)	(7%)	(75%)	(17%)	
Smart	59	568	2,109	3,908	6,644
	(1%)	(9%)	(32%)	(59%)	
Voyager	17	91	175	378	661
	(3%)	(14%)	(26%)	(57%)	
ePLDT	4	49	65	171	289
	(1%)	(17%)	(22%)	(59%)	

BY EMPLOYMENT TYPE	<b>PROBATIONARY</b>	REGULAR	TOTAL
PLDT	91 (1%)	6,766 (99%)	6,857
Smart	362 (5%)	6,282 (95%)	6,644
Voyager	73 (11%)	588 (89%)	661
ePLDT	39 (13%)	250 (87%)	289

BY GENDER	MA	LE	FEM	ALE	TOTAL		
	NEW	HIRE	NEW	HIRE	NEW	HIRE	
	HIRES	RATE	HIRES	RATE	HIRES	RATE	
PLDT	142	2.1%	123	1.8%	265	3.9%	
Smart	426	6.4%	384	5.8%	810	12.2%	
Voyager	116	17.5%	98	14.8%	214	32.4%	
ePLDT	41	14.2%	29	10.0%	70	24.2%	

.....

NEW HIRES,								
BY REGION	LUZ	ON	VISA	YAS	MIND	ANAO	TO.	ΓAL
	NEW	HIRE	NEW	HIRE	NEW	HIRE	NEW	HIRE
	HIRES	RATE	HIRES	RATE	HIRES	RATE	HIRES	RATE
PLDT	241	3.5%	17	0.2%	7	0.1%	265	3.9%
Smart	731	11.0%	43	0.6%	36	0.5%	810	12.2%
Voyager	210	31.8%	2	0.3%	2	0.3%	214	32.4%
ePLDT	70	24.2%	0	-	0	-	70	24.2%

BY AGE GROUP	UND	ER 30	30	-50	OV	ER 50	TOTA	<b>AL</b>
	NEW	HIRE	NEW	HIRE	NEW	HIRE	NEW	HIRE
	HIRES	RATE	HIRES	RATE	HIRES	RATE	HIRES	RATE
PLDT	192	2.8%	71	1.0%	2	<0.1%	265	3.9%
Smart	678	10.2%	130	2.0%	2	<0.1%	810	12.2%
Voyager	152	23.0%	62	9.4%	0	-	3	1.0%
ePLDT	34	11.8%	35	12.1%	1	0.3%	70	24.2%

Smart continues to present a level playing field for both sexes, maintaining its nearly 1:1 ratio between male and female staff. Even in the aspect of new hires, the equitable distribution between male and female remains strong. This strong trend is mirrored in Voyager where 44% of employees are women, while around 35% of the PLDT and 33% of ePLDT workforce is female. The Group thrives with a workforce that is more diverse than usual in the engineering and tech fields.

The PLDT Group is also attractive for the young workforce. A good 55% of Voyager employees come from the Under-30 age group, while it's a high 35% for Smart, 27% for ePLDT, and a stable 13% for PLDT.

It is notable that 84% of digital innovator Voyager's workforce is considered "Millennials" or "Gen-Y," those born between the years 1979 to 1995. Apart from the fact that using digital technologies is second nature to Millennials, it is also widely documented how members of this generation, in their choice of a company to work for or invest in, place a high premium on the environment, health and work-life balance, equal opportunity, transparency and ethical operations, corporate social responsibility, and good corporate governance.

The open culture that has been engendered at Voyager from its startup days has translated into an environment where Millennials and Digital Natives (Generation Z, born after 1995) thrive. Voyager's bias for digital and financial inclusion for emerging markets provides careers with opportunities "to make a difference."

However, attrition rate is higher in this age group – recorded at 7.8% for Smart – as individuals actively seek their varying personal priorities or pursue higher position levels in other industries. This is balanced out by a stable size of the workforce that comes from the 30-50 age group, comprising 63% for Smart, 49% for PLDT, 44% for Voyager, and 66% for ePLDT.

Attrition rates for the other age groups within Smart are at 8.1% for those between 30 to 50, and 0.5% for those over 50. Considering the total employee population, the attrition rate for Smart is 16.4%. Per gender, these are 6.8% for male employees and 9.5% for female employees. Per region, these are 14.4%, 1.0%, and 1.0% for employees coming from Luzon, Visayas, and Mindanao, respectively.

Attrition rate for total PLDT employees is at 1.6%, with 0.9% for male employees and 0.8% for female employees. Considering age groups, attrition rates are at 0.6%, 0.7%, and 0.4% for those under 30, 30 to 50, and over 50 years, respectively. On a per region basis, attrition rates are 1.6%, less than 0.1%, and 0.1% respectively for employees coming from Luzon, Visayas, and Mindanao.

For Voyager, the total attrition rate is 15.3%. The attrition rates per gender are 8.3% and 7.0% for male and female employees, respectively. Per age groups, these are 7.3% for those under 30 years old, 7.4% for those in between 30 to 50, and 0.6% for those aged over 50.

The total attrition rate of ePLDT is at 7.3%. The attrition rate for male employees is at 4.2% while for female employees this is 3.1%. The age group of under 30 has an attrition rate of 3.8%, while those between 30 to 50 have an attrition rate of 3.1%. The attrition rate for those over 50 is 0.3%.

Both Voyager and ePLDT do not have attritions for Visayas and Mindanao.

Meanwhile, supplementary data on maternity and paternity leaves show that people appreciate the long-term benefits of being part of a sustainable organization that has been in service for 88 years. This is a notable indicator metric, as employees who go through major life changes and adjustment such as having children would usually face decisions regarding alternative life paths. The high retention rate on this metric shows that people are choosing to continue their relationship with the organization.



Overall, the employee data gathered demonstrate that attracting applicants to fill positions is not a problem because the PLDT Group remains a preferred choice of jobseekers in the country. This is because the PLDT Group has a compensation philosophy that goes beyond the standard government-mandated compensation and benefits.

Employees of the PLDT Group are some of the most rewarded in terms of benefits and compensation, which includes prime health care and performance incentives. Benefits such as vacation and sick leaves, medical and insurance coverage, loan facilities, allowances, and retirement plan equitably apply to every regular employee, from staff level to executive level.

Aiming to attract and retain quality employees, the organization not only espouses the principle of Pay for Position, Pay for Performance, and Pay for Person; it also addresses the broad range of concerns that are important to employees, such as working conditions, skills training, career opportunities, health and safety, and the opportunity to pursue their passions.

The PLDT Group also offers career advancement opportunities that help employees pursue their professional goals.

For PLDT employees, the Training Development and Career Center offers a variety of programs conducted at the Telecommunications Training and Education Center (TelTEC) in the Innolab Building in Mandaluyong City. The center has 24 trainors and more than 100 resource persons from training service providers. Training modules in PLDT are offered in courses and employees may participate in more than one course.

Meanwhile, nine years since launching an online learning management system, Smart strengthens its commitment to a culture of learning with its Gamified Mobile Learning (mLearning) Program. This focuses on four tactics: deploy a mobile-ready learning platform, tap into the power of stories and games, sustain the habit with relevant off-the-shelf content, and keep a solid employee experience feedback loop.

Smart deployed a new online learning system in May, providing employees access to online learning content whenever they want, wherever they are, and with any device. Using the power of stories and games, it revamped traditional corporate educational content into something employees can easily digest. And to develop the employees' learning habit, off-the-shelf content is released weekly. Employees can access free courseware on project management and other business-related skills. A weekly newsletter was also introduced to highlight course trends, content hits, and verbatim employee feedback.

With these, Smart's learning activities experienced a dramatic spike in 2016. The new online learning system's employee reach was 73% by the end of the year – significantly higher than the previous year's 22.5%. Course revisits averaged at 7.6 times, a big jump from 2015's 4.8. Seven out of 10 Smart employees use their mobile devices to take up learning courses even when these are not required.

For its part, Voyager has a learning and development program that promotes the personal and professional development of employees across various disciplines.

Pay for Position	Incorporates pay for the importance of		
	the position and considers external market,		
	covering the pay practices in the industry		
Pay for Performance	Focuses on company, team, and individual		
	performance to achieve business goals,		
	providing both short-term and long-term		
	incentives. This is given more weight and		
	importance that other pay components		
Pay for Person	Incorporates pay for competencies and skills		
	of the individual that are valuable to the		
	company		

### **Parental Leave**

	PLDT	Smart	Voyager	ePLDT
Total employees who took parental leave	142	347	12	15
Maternal Leave	52	191	7	3
Paternal Leave	90	156	5	12
Number of employees who returned to work after parental leave <sup>1</sup>	142 (100%)	346 (99.7%)	(91.7%)	15 (100%)
Maternal Leave	52	190	6	3
Paternal Leave	90	156	5	12
Number still employed one year after their	136	315	9	7
return from parental leave <sup>2</sup>	(97.1%)	(82.7%)	(75%)	(100%)
Maternal Leave	60	186	5	4
Paternal Leave	76	129	4	3

I Employee figures for 2016

## PLDT: Training hours provided in a year, by gender and rank

	Total Training Hours	Average Training Hours		Total Training Hours	Average Training Hours
Gender			Rank		
Male	112,446	25.0	Officers	76	1.3
Female	37,340	15.8	Executives	3,872	8.7
			Management	106,696	20.7
			Rank & File	39,142	32.7
			Total	149,786	21.8

# PLDT training modules cover a variety of topics and themes, from management skills to technical certification courses. These include, among many others:

- Analytic Problem Solving and Decision Making
- Project Management Workshop
- IT Reporting Tools
- Your Unique Personality @ Work
- 5'S:TransformingThe Workplace

- Certified Fiber Optic Technician Certification BootCamp/Training
- Optical Communications Certification—Associate Level
- Fiber to the Home Field Services Training
- Information Technology Infrastructure Library Foundation
- Broadband Connection Migration Technology

<sup>2</sup> Retention rate of 2015; uses employee figures for 2015

### Smart: Training hours provided in a year, by gender and rank

	<b>Total Training</b>	<b>Average Training</b>		<b>Total Training</b>	<b>Average Training</b>
	Hours	Hours		Hours	Hours
Gender			Rank		
Male	93,168	27.6	Officers	648	11.0
Female	55,768	17.1	Executives	7,992	14.1
			Management	50,240	23.8
			Rank & File	90,056	23.0
			Total	148,936	22.4

## Voyager: Training hours provided in a year, by rank\*

	<b>Total Training</b>	<b>Average Training</b>
	Hours	Hours per Employee
Officers	0	-
Executives	216	2.37
Management	1,392	7.95
Rank and File	3,864	10.22
Total	5,472	8.24

<sup>\*</sup>Includes employees for PayMaya Philippines, Inc. and Voyager Innovations, Inc.

## Voyager: Training hours provided in a year, by gender\*

Average Training Hours	
	per Employee
Male	8
Female	9
Total	8

Average Training Hours

### **Staff Development in Smart**

Programs for Skill Management/Lifelong Learning:

## Cisco Certified Internetwork Expert = 274 employees

Certifies the skills required of network engineers to plan, operate, and troubleshoot complex, converged network infrastructure on a wide variety of Cisco equipment.

## Project Management Professional = 50 employees

An internationally recognized professional designation offered by the Project Management Institute (PMI).

## IP Expert Certification Program = 12 employees

The certification is accepted worldwide as the most prestigious networking certification in the industry.

## Business Analysis Certification Program = 50 employees

A professional certification and registered trademark for individuals with at least 7,500 hours of business analysis experience

Dubbed the Space Camp, Voyager's Learning Academy initiative brings together three dimensions of learning – virtual, physical, and experiential.

For virtual learning, the company provides a digital portal that allows employees to develop their own learning pathways. The platform is powered by Degreed, an education technology company that promotes lifelong learning. For physical learning, employees engage with resource persons through actual face-to-face learning sessions. And for experiential learning, employees can sign up for internships and immersive experiences at any of Voyagers business and support units. Voyager inspires this "sound mind in a sound body" principle for its employees working with a sense of "Purpose, Imagination, and Execution."

The PLDT Group also implemented the digital pivot in its employee communication efforts, launching an internal social media platform in 2016. This enables interactive discussions among employees, including top management, for improved collaboration, as well as the faster dissemination of information. By the end of the year, 87% of the employee population had already registered to the platform. About 4,500 employees are active on a weekly basis.

## **EMPLOYEES' HEALTH AND SAFETY**



Cultivating a workplace that is healthy, safe, and secure by institutionalizing workplace programs, practices, and systems that support productivity goals. Providing a work environment conducive to growth and development helps build a sustainable business.

PLDT has Environmental, Health, and Safety (EHS) programs in place to remind staff of policies and regulations, promote compliance, and monitor situations.

PLDT regularly submits to the Bureau of Working Conditions of the Department of Labor and Employment (DOLE) its Annual Medical Report, Annual Work Accident/Illness Exposure Data Report, and Report on Health and Safety Organization.

As of year-end 2016, PLDT reached 1,000,960 safe man-hours. The last work-related accident occurred on December 5, 2016 involving a Customer Service Zone employee who suffered a fall.

PLDT reported 1,312 man hours lost, with 49 occupational incidents in 2016, majority of which were superficial injuries and wounds suffered during accidents in worksites.

PLDT shoulders the medical cost for employees who become ill, inclusive of medicines, hospital confinements, and post-operative rehabilitation. Employees are also required to undergo Annual Physical Examination.

Type of Injury	No. of Incidents
Superficial Injuries and Open Wounds	29
Fractures	5
Dislocations, Sprains, and Strains	11
Concussions and Internal Injuries	1
Burns	1
Eye Irritation	1
Head Trauma	1

Training Course	Participants
40-Hour Basic Occupational Safety and Health (BOSH)	72
40-Hour Basic Pollution Control Officer (PCO) Training	53
First Aid Training and Basic Life Support	24

PLDT's Property and Facilities - Risk Management and Compliance Division, in collaboration with the Human Resources Training Division, organized different trainings geared to ensure compliance with DOLE, DENR, Bureau of Fire Protection, and LGU regulations.

The BOSH training aimed to increase the number of competent and qualified occupational safety and health personnel. A total of 72 personnel from PFM and Network offices completed the training in 2016. The training modules were conducted by a DOLE-accredited training provider. BOSH is also a primary requirement for those who want to be recognized as Safety Officers under DOLE's Department Order No. 16.



A total of 53 appointed PCOs from PFM and Network Offices in various regions completed the DENR-required Basic Pollution Control Officer Training administered by EMB-recognized training providers. The training tackles the framework of various environmental regulations in the Philippines, namely the Philippine Clean Air Act of 1999, Philippine Clean Water Act of 2004, Toxic and Hazardous Waste and Nuclear Wastes Control Act, Ecological Solid Waste Management Act, and the DENR Administrative Order on PCO Guidelines.

On the other hand, 24 participants from various organizational units completed their First Aid Training with Basic Life Support.

Meanwhile, 21 PLDT facilities participated in the Metrowide Shake Drill that happened on June 22, 2016. Sixteen out of the 21 facilities attained a hundred percent participation of occupants. Total participation was at 84% (4,784 out of 5,720 occupants). The drill was organized by the Metro Manila Disaster Risk Reduction and Management Council, Metro Manila Development Authority, and Office of Civil Defense. It aimed to promote a culture of preparedness among Metro Manila residents for a possible 7.2 magnitude movement of the West Valley Fault.

PLDT also supports the pursuit of employee passions by promoting sports and recreational programs with various events (including talent shows and workshops; sports events like basketball, bowling, volleyball, badminton, track and field, Frisbee, dodgeball, table tennis, football, billiards, tennis, chess, darts, yoga; a family fun day; and fitness/wellness programs).

Meanwhile, Smart promotes a health and wellness lifestyle among its employees, offering a variety of weekly wellness classes which are held at its Makati, Iloilo, and Davao offices. Classes include yoga, Zumba, Body Combat, and Retro Pop

aerobics, among others.

An initiative of note was the #RoadToWellness banner campaign of Smart which promoted a holistic, active, and healthy lifestyle among its employees. For the entire month of September, employees were introduced to workouts like tai chi, Pilates, and CrossFit. Happiness Workshops were also conducted to orient employees on alternative fitness activities, such as posture correction through exercise, and Brazilian Jiu Jitsu. The program included comprehensive lectures on everyday movement and proper nutrition and grooming. Wellness vendors were also invited to help employees get a headstart on their personal wellness journey.

Smart employee clubs also held their week-long recruitment drive during this month. To strengthen employee engagement, Smart provides support for employee clubs and encourages employee participation in club activities.

Smart also has programs that engage not only its employees but their friends and family as well, such as the annual Halloween festivities. These activities strengthen external employer branding and build fellowship and camaraderie across the organization.

There is also the MVP Olympics (MVPO). The biennial sports fest is an MVP Group-wide tournament of various sports and fun games. The 52 events in 2016 included mainstream sports, such as track and field, basketball, volleyball, badminton, chess, football, lawn tennis, and table tennis. There are also novelty activities like a cosplay competition, singing contest, battle of the bands, sack race, dodgeball, and even a beauty pageant. The MVPO is known to bring out the competitive spirit in each employee, and reinforces ties among companies within the Group.

# BUSINESS CONTINUITY AND DISASTER MANAGEMENT



Instituting disaster preparedness and resiliency into the corporate culture, the PLDT Group is able to quickly initiate protocols for re-establishing connections during emergencies.

Foremost consideration is given to the protection of human lives – the safety of employees and their families, and the safety of customers.

In 2015, the PLDT Group instituted the Enterprise Business Continuity and Resilience Office (BCRO) to provide reasonable assurance of the company's resilience and preparedness in times of crisis or disaster. The BCRO guides the organization in identifying risks and opportunities to develop and build organizational resilience with the capability for an effective and immediate response.

By 2016, the Group has designed an enterprise-wide Business Continuity Policy, approved by the PLDT Risk Committee, to facilitate the implementation of a Business Continuity Management System (BCMS).

Notably, the BCRO was able to achieve an ISO 22301:2012 certification of PLDT's three Cable Landing Stations (CLS) situated in different parts of the country. Cable landing stations are crucial terminals for international networks that are linked by submarine cables. Getting the ISO certification is one of the key steps in demonstrating the organization's commitment to having a robust BCMS in place.

Awarded by TUV Rheinland Philippines, one of the world's leading consultancy and certification bodies, the ISO 22301:2012 certification covers cable station operation and maintenance supporting voice, data, and converged multimedia services connectivity. It encompasses the identification of key risks and their impact, business continuity planning, performance evaluation, and commitment to continual improvement to ensure that the CLS operation would quickly recover and continue after business disruptions.

Each CLS has protocols outlined in the Business Continuity Plan to mitigate the impact of any kind of threat, and to maintain operations should a disaster happen. The plans are tested and drills are carried out to guarantee effectiveness in emergency cases. The BCRO spearheaded the certification process, in coordination with the CLS Business Continuity Coordinators.

Meanwhile, the Enterprise Business Continuity and Resilience team created and launched an innovative mobile app specifically designed for employees in the PLDT Group. HANDA, which stands for Hazard Alert Notification for Disasters App, is a disaster preparedness mobile application that allows users to ask for help during emergency situations via an SOS button, as well as inform the organization of their status after a calamity or disaster via the I-Am-Safe button.

The app also allows management to communicate and send official bulletins and advisories to registered users via SMS and the newsfeed function. It gives employees easy access to emergency numbers and utilities such as a whistle, siren, and torch. The app also provides an easy way to report incidents to the organization. The HANDA Command Center is monitored 24/7.

### Response to Natural Disasters/Calamities

The organization has also put in place a Crisis Management Plan (CMP) which establishes processes and measures that enable management to immediately respond to and resolve various crises. The CMP mandates the creation of a Crisis Management Team, a multi-disciplinary body composed of select senior officers, which is structured to have the agility and flexibility to deal with all types of crises to ensure the continued provision of quality services, safety of employees, and protection of operations and properties.

Cognizant of the fact that effective disaster resilience requires collaboration and partnership with government agencies, local government units, civil society groups, and the business sector, PLDT is actively involved with several organizations, including the following:

Organization	Participation
Philippine Disaster Resilience	Composed of 63 member-companies, divided into
Foundation (PDRF)	seven clusters: Logistics, Telecom, Water/Sanitation,
	Emergency Supplies, Power, and Early Recovery. The
	BCRO is head of the Telecom Cluster.
Corporate Network for Disaster	PLDT-Smart is a member company of the
Response (CNDR)	Quadrant-Based Approach on disaster response,
	in coordination with Metro Manila Development
	Authority Oplan Yakal.
Groupe Speciale Mobile	Smart actively participates in GSMA's telco audit on
Association (GSMA)	disaster preparedness. The BCRO represents Smart
	in the GSMA Disaster Response's Humanitarian
	Connectivity Charter.
United Nations Office for Disaster	PLDT-Smart is a member of the Private Sector
Risk Reduction (UNISDR)	Alliance for Disaster Resilient Societies (ARISE) in
	the Philippines
Asia Pacific Alliance for Disaster	In partnership with the Citizens' Disaster Response
Management (APAD)	Center:

Meanwhile, the Logistics and Fleet Management team conducted trainings on Emergency Preparedness and Rescue Operations, in support of the business continuity plan of the PLDT Group.

The team initiated four runs of Defensive Driving Training in 2016 that aimed to equip Smart field engineers with the right attitude and driving skills when on the road using company service vehicles. Trainings were conducted in Manila, Cebu, and Davao for a total of 70 engineers.

At the same time, 60 engineers were trained on the use of 4x4 service vehicles to be able to respond to emergencies during heavy rains and flooding. Actual driving training sessions were done in the Pampanga River to simulate driving in flooded areas.

## PLDT and Smart face super typhoon Lawin

Super Typhoon Lawin (international name: Haima) made landfall on northern Philippines on October 19. Winds of up to 225 kph ripped through 118 barangays in llocos, Cagayan, Central Luzon, Bicol, and Cordillera. As part of their network resiliency, rapid response, and disaster preparedness protocol, PLDT and Smart had secured facilities and pre-positioned teams of engineers and technicians in areas about to be hit. This strategy enabled the companies to immediately roll out restoration work as well as relief operations of the PLDT-Smart Foundation, PLDT Community Relations team. and MVP Tulong Kapatid. A total of 32 sites in Tuguegarao, 21 sites in Ballesteros, 48 sites in Vigan, and 58 sites in Laoag were kept running because of the efforts of the restoration team. Smart's mobile phone services were up in 80% of the cities and municipalities of North and Central Luzon despite the impact of the super typhoon. Alongside the restoration efforts, PLDT and Smart provided free charging and free call stations to several communities hit by the typhoon. Public service is the priority during these times and employees work together and go the extra mile to help those in need.

Moreover, two 6x6 trucks were purchased and configured for rescue and relief operations. The vehicles, which can traverse flood water as high as 1.5 meters, were deployed strategically in the Sta. Rosa Warehouse and the Dau Regional Office to be able to respond quickly in these flood-prone areas when needed. Meanwhile, four 4x4 units were re-fitted for rescue and relief operations. These vehicles can now cross flooded areas and perform rescue operations.



## CORPORATE SOCIAL RESPONSIBILITY



CSR activities and programs bring the organization close to the people it serves. With its technologies and stature, the PLDT Group is well-positioned to provide much needed assistance and relief to those in need.

Within the organization are several groups doing CSR work all over the country. These include the PLDT-Smart Foundation (PSF), PLDT's Community Relations group, and Smart's Community Partnerships department. PSF efforts are detailed in its annual foundation report.

Empowering people to build a better future for themselves through communications technology is the overarching theme of the many programs and initiatives. Disaster preparedness and resilience as well as tech-enhanced education and digital literacy were among the goals in 2016.

### **Disaster Preparedness and Resilience**

A major initiative of PSF is the Tulong Kapatid Housing Project, in cooperation with the MVP Group's Tulong Kapatid, that was able to turn over 266 new housing units to Typhoon Pablo (2012) survivors of Barangay Lambajon in Bangaga, Davao Oriental.

The beneficiaries were presented with a model resettlement site with disasterresilient housing units designed to withstand 280 kph windstorms. (See special feature on this project on pages 80-81.)

Another example is the "Village of Joy" project of PLDT employees, their voluntary response to the call for aid of Typhoon Yolanda victims in Tacloban. With a minimum PhP150 donation each, around 1,800 employees supported the USAID (US Agency for International Development) and PDRF's Building Resilient and Economically Adept Communities and Household (BREACH) program, and funded 30 transitional butterfly houses. The BREACH program supports survivors through their transition to post-Yolanda living with provisions for individual shelter units and access to basic services and transport system.

The PLDT Group is quick to respond to calls for immediate disaster relief. When Typhoon Nina (international name: Nock-ten) made landfall on Bicol on Christmas day, the PSF, along with MVP Tulong Kapatid, immediately deployed food packs, hygiene kits, bottled water, and free call and charging stations. Their efforts served around 1,400 families.

It was with the same urgency that the Group responded to the needs of communities affected by Typhoon Lawin (international name: Haima) which hit the Cordillera region in October. Relief goods and family packs, blankets, and community water filtration devices were dispatched immediately. Such relief operations are always a team effort of PSF, MVP Tulong Kapatid, Alagang Kapatid Foundation, One Meralco Foundation, Maynilad, and employee volunteers from the PLDT Group and MVP Group of Companies.

Meanwhile, Smart again partnered with the Office of Civil Defense (OCD) to strengthen disaster communications in Regions 4A, 7, and 8; Cordillera Autonomous Region; and CARAGA Region. Dubbed ICT Bayanihan, the regional meetings for private and public national and regional agencies aimed to establish disaster communication protocols and institutionalize rapid emergency telecommunication teams (RETT) for immediate response and support to affected communities.



Smart also supports the OCD through technology solutions that can help facilitate immediate response. For instance, the Project Agos SMS service launched by Smart along with Voyager Innovations and Rappler allows users to ask for rescue, search, or relief assistance via text message.

Smart has also been consistent in providing immediate free call or libreng tawag services in disaster-affected areas. It also offers a web-based disaster communications solution called Smart Infocast to government agencies, local government units, and disaster-prone communities so the latter could efficiently send weather forecasts and evacuation advisories.

Moreover, Smart helped develop the Batingaw mobile app for OCD-NDRRMC (National Disaster Risk Reduction and Management Council). Named after a Tagalog word for "bell," the Batingaw app provides government agencies, organizations, and individuals immediate access to disaster warnings, advisories, location data, and disaster mappings. It features step-by-step instructions that can guide users to safety during disasters. The app also enables users to contribute information to emergency agencies more easily and quickly.

The Intergovernmental Authority on Development (IGAD) and the United Nations Development Programme (UNDP) identified Batingaw as an innovative tool that can help strengthen early warning systems in Africa. Batingaw's developer, Tudlo Innovations Solutions, travelled to Nairobi, Kenya to work with the IGAD team in developing a similar app for the Horn of Africa.

Smart, through its value brand TNT, also rolled out a disaster preparedness caravan to schools nationwide to promote the culture of preparedness among the youth. Dubbed "Tropang Ready," the learning series was kicked off at Batangas State University and was attended by over 2,000 students and members of the academe. The caravan will be

rolled out to other state universities and colleges all over the country.

On top of this, Smart kicked off a disaster-readiness educational caravan especially designed for children. It features the video series "Maging Laging Handa (Be Always Prepared)," which covers precautionary measures and safety tips for various calamities. Approved by the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA), Philippine Institute of Volcanology and Seismology (PHIVOLCS), and the Mines and Geosciences Bureau, Maging Laging Handa materials are also being used by the Department of Education as additional resources for the disaster risk reduction education of elementary students.

Efforts, services, and innovations to help improve communications during emergencies are part of Smart's commitment to the GSMA Humanitarian Connectivity Charter.

In September, Smart invested PhP400 million in an emergency cell broadcast system (eCBS) that would strengthen the nationwide alert system of the NDRRMC.

Through CBS technology, one message can be sent to a large number of devices quickly and broadcast to all enabled handsets within a designated target area. It enables location-specific emergency alerts without the need to register or track devices. It also has the capability to deliver messages and alerts from NDRRMC or PHIVOLCS to visitors coming from abroad who are in the perimeter of the selected broadcast area.

The first area to benefit from this is densely populated Metro Manila, followed by major identified areas in Luzon, Visayas, and Mindanao.

Republic Act 10639 or the Free Mobile Disaster Alerts Act mandates all telecommunication services providers to send free mobile alerts in the event of natural and manmade disasters. Working with the government and other partners, Smart has helped build the capacities of high-risk communities to prepare for, manage the impact of, and bounce back from disasters, using technologies appropriate to them. It has actively promoted disaster preparedness under its international award-winning #SafePH campaign.

### **Education and Digital Literacy**

PLDT's Gabay Guro Program is on its 9th year and grows bigger and stronger every year. The flagship program of PSF together with the PLDT Manager's Club, Inc. has six components: scholarships, training, computerization and broadbanding, teachers' tribute, livelihood, and housing and educational facilities.

To date, Gabay Guro has provided over 16,000 teachers with free training, given scholarships to 1,100 education majors (438 of whom have already passed the Licensure Exam for Teachers), and equipped more than 47 partner schools nationwide with computers and broadband connection.

The Gabay Guro 2016 tribute event for teachers was the program's biggest gathering so far, welcoming around 20,000 teachers at the Mall of Asia Arena in Pasay City. During the event, big prizes were given away, such as a van and a house and lot.



Meanwhile, PLDT's Infoteach Outreach Program provided ICT training to 6,068 high school students and grade and high school teachers in 2016. These program graduates came from 122 schools in 46 cities and municipalities all over the country.

To date, Infoteach has had 25,888 program graduates. It has also provided scholarship grants to outstanding teachers, enabling them to enroll in the Diploma in Computer Science program offered online by the University of the Philippines Open University (UPOU).

Since it began in 2004, the program has continuously evolved and grown in reach, collaborating with various major institutions such as Intel Philippines, UPOU Foundation, Philippine Community eCenter Network, Technical Education Skills and Development Authority (TESDA), Department of Education, and LGUs. The program has also expanded its comprehensive curriculum, incorporating various levels of computer skills and digital literacy.

The Infoteach Outreach Program also organizes the PLDT Home DSL Broadband Quiz — a one-of-a-kind online Olympics featuring the top graduates of the program. Computer wizards from all over the country compete to test their digital literacy, proficiency, and knowledge in other areas such as communication, techno entrepreneurship, child rights protection, and more. The winners of this yearly competition receive various rewards such as substantial cash prizes and computer equipment, plaques, and medals. It is the biggest online competition in the country, and was established in partnership with DepEd and UPOU.

PLDT also gave support to communities in Arakan Valley, North Cotobato, in partnership with the Philippine Eagle Conservation Program Foundation, Inc., by providing incentives to volunteer teachers. Four teachers from Ganatan Elementary School Annex each received a monthly living allowance of PhP2,000. This donation came with the opening of a Grade 3 classroom in the school.

Getting notice from the international community was the Smart TechnoCart, a mobile digital laboratory donated to public schools to help develop literacy among students. The program won the Social Contribution Award both at the Asia Communication Awards in Singapore and the World Communication Awards in London.

Each Smart TechnoCart contains 20 tablets for the use of students; a tablet, laptop, and projector for the use of the teacher; Smart Bro pocket Wi-Fi with load for connectivity; and the Smart One Campus, a learning management system to help administrators and teachers track and measure their students' academic performance. Its compact and portable design makes it easy for the teacher to transfer the laboratory from one classroom to another.

To help schools optimize the use of the Smart TechnoCart, teachers are also given training on tablet basics as well as on child and curriculum development provided by the Community of Learners Foundation (COLF).

Smart TechnoCart tablets come pre-loaded with the Batibot app, the first educational app in Filipino aligned with the official kindergarten curriculum. Created with COLF and developer partner OrangeFix, the app can be downloaded for free on Android devices.

Through the Batibot app, kids learn how to write letters correctly by tracing. The app also features children's stories that highlight values; songs that kids can sing along to; and games teaching students how to spot the different object among a group of items, as well as how to match and sort objects consecutively.

Since it launched the program in June 2015, Smart has distributed TechnoCarts to 30 public schools from as far as Pangasinan in the North and Tawi-Tawi in the South. Seventeen of these units were donated by Smart, while the rest were sponsored by its employees, other individuals, and organizations wanting to help spread the benefits of digital learning to more public schools.

In mid-2016, Smart launched a similar initiative for schools in remote areas, especially those without electricity. The Schoolin-a-Bag is a backpack containing a solar panel, laptop, tablet, mobile phone, pocket Wi-Fi with starter load, LEDTV, and digital learning modules. By the end of the year, Smart had donated 11 School-in-a-Bag units to remote schools in Luzon, Visayas, and Mindanao.

Another initiative that received international recognition was the Smart Wireless Engineering Education Program (SWEEP). Because of this program, top international business magazine Fortune included Smart in its list of 50 companies around the world that are creating "important social impact."

Through SWEEP, Smart partners with colleges and universities to improve engineering and IT education in the country. The program, which was launched in 2003, also aims to help schools produce industry-ready graduates and future technology entrepreneurs.

Under SWEER, Smart provides schools with up-to-date telecommunications equipment, as well as hands-on trainings, seminars, and internships. Smart also sits in annual curriculum reviews to provide inputs on industry trends, helping schools ensure that their course offerings are relevant.

To date, more than 30,000 teachers and students from all over the Philippines have directly benefitted from trainings organized by Smart. About 1,000 students from partner-schools have been hired into Smart's technology group.



In 2004, Smart launched the SWEEP Innovation and Excellence Awards, a competition encouraging students to create mobile and digital innovations that will help solve common problems. Student teams whose entries are deemed to have market potential are offered seed funding, mentoring, and the runway to convert their school projects into actual commercial products. Schools of teams that make it to the finals, in turn, receive grants that they use to set up Innovations Centers.

So far, Smart has received more than 1,000 entries from schools in Luzon, Visayas, and Mindanao. Some of these student projects have been turned into actual commercial products. An example is TimeFree, a finalist in the 2010 SWEEP Awards, which is now a startup offering a virtual queuing solution to businesses and government agencies.

## Gabay Guro and Brigada Eskwela help enhance learning spaces



Continuing its efforts to enhance the learning spaces of students, PSF flagship program Gabay Guro donated construction and building materials for Brigada Eskwela's classroom maintenance program in Itaas Elementary School NBP-Annex. Five buildings, including a guardhouse, will be repaired, rebuilt, and maintained through this donation.

Previous activities under Brigada Eskwela had PLDT employee-volunteers help clean, repaint, and repair classrooms at Putatan Elementary School, Muntinlupa City. Donations of painting materials were also made to various schools in Davao City.

#### Initiatives for the Environment and Health

Other CSR initiatives were also implemented in support of other advocacies, such as caring for the environment. PLDT TELEpuno continued its tree planting program in 2016 by supporting the Cavitex Beautification Project. Together with Cavitex volunteers, PLDT employee volunteers planted 6,000 seedlings at the Northbound Cavitex Carriageway between Imus Bridge and Viaduct 3.

PLDT is still the biggest donor of the Motolite-PBSP Balik Baterya Program, which aims to encourage the proper disposal and legitimate recycling of used batteries to help rid the environment of toxic chemicals. Funds from donated used batteries are utilized to support CSR projects identified by the company and PBSP.

PLDT has donated a total of 2 million kilos of ULABs, with proceeds amounting to PhP48 million as of December 31, 2016.

For 2016, donated batteries weighed 163,000 kilos, worth almost PhP4 million.

To date, 41 projects nationwide have been completed, using funds from the Balik Baterya Program:

PLDT school buildings turned over in 2016 were:

- Banquerohan Elementary School, Legazpi City
- Colegio de Sta. Rita, del Gallego, Camarines Sur
- Roxas City School of Philippine Craftsmen, Roxas City

No. of Individuals Oriented on Tuberculosis	2,015
No. of Classrooms Constructed	23
No. of Classrooms Repaired	6
No. of Learning Resource Corners Turned Over	54
No. of Families Benefiting from Urban Renewal Intervention (Roads and Drainage Construction)	943
No. of Multi-Purpose Centers Constructed	2
No. of Hectares Adopted in the Marikina Watershed	13
No. of Computer Laboratories Upgraded	2

Meanwhile, Smart continued its longstanding support for Sarangani's environmental campaign, which pushes for the responsible use and protection of the 230-kilometer stretch of shoreline that is home to diverse marine life, especially during the annual Sarangani Bay Festival. In 2016, Smart sponsored the Swim-Bike-Run for the Environment event to help raise funds for the turtle conservation and mangrove reforestation projects of the Sarangani Provincial Environment and Natural Resources Office. Part of the proceeds from the triathlon event were used to purchase fingerlings to repopulate the fishes in Sarangani Bay. Sarangani is known for its bangus and tuna.

Smart has been an active partner of the Philippine Disaster Resilience Foundation in the implementation of the Marikina Watershed Initiative (MWI) Program in the Upper Marikina River Basin Protected Landscape (UMRBPL). In 2016, through the support of Smart and its employees, Dumagat communities in the UMRBPL greatly benefited from livelihood and education assistance. These included the donation of a honey production house and a learning center packaged with a School-in-a-Bag. Employee volunteers also helped in building the Casili Bridge, which gives students living at the UMRBPL safer passage in their school trek.

PSF and Smart have funded Forest Families, another MWI project. Forest Families aims to address the twin issues of poverty and environmental degradation in UMRBPL and Kaliwa Forest Water Reserve by establishing a family-based approach that is sustainable and effective.



PLDT also continued supporting the campaign of the Department of Health and Philippine Red Cross (PRC) to provide safe blood to those in need. Throughout the year, PLDT conducted several "Dugong PLDT" blood-letting drives in different offices, in partnership with PRC and the Philippine Children's Medical Center. The activity gathered 517 blood donors in 2016.

With the award-winning SHINE (Secured Health Information Network and Exchange), which is its flagship mHealth project, Smart aims to raise the efficiency and effectiveness of healthcare facilities through the innovative use of mobile and ICT technologies. SHINE (www.shine. ph) is a hosted electronic health information and referral system with offline capabilities. This means patient records encoded in SHINE can be accessed using a smartphone or a computer even without internet connectivity.

Smart also partnered with Operation Smile Philippines (OSP) to deploy a web and mobile app that health workers and community volunteers could use to take photos and details of patients with cleft lip and cleft palate conditions. This app enables OSP to screen more new cases even in remote areas. Patient details gathered through the app are uploaded to the central server of Operation Smile. It helps OSP better monitor patients' condition and locate areas with high population of cleft patients.

# PLDT gifts the Ati tribe of Iloilo with a full-year scholarship



PLDT believes in the dictum that education is the best equalizer. Therefore, in partnership with the Philippine Business for Social Progress (PBSP) and Oriental and Motolite Marketing Corporation, PLDT sponsored a scholarship program for the Ati tribe who were relocated in Brgy. Lanit, Iloilo City and whose children were enrolled at the Tiu Cho Teg-Ana Ros Foundation Integrated School (TC-TARFIS). The scholarship program provided monthly allowances for the students' school projects, meals, and transportation expenses. For college students, a year's tuition was covered. The program was co-implemented by the Ati Tribe Mission, Inc.

# TYPHOON-RAVAGED COMMUNITY BUILDS BACK BETTER THAN BEFORE



In March 2016, MVPTulong Kapatid — the CSR consortium of the companies led by Manuel V. Pangilinan — in partnership with the provincial government of Davao Oriental turned over 266 housing units to the families rendered homeless when Typhoon Pablo devastated the province in December 2012.

The five-hectare resettlement site in Barangay Lambajon that was donated by the provincial government was developed with the assistance of the PLDT-Smart Foundation, TV5's Alagang Kapatid Foundation, One Meralco Foundation, First Pacific Leadership Academy, MPIC Foundation, First Pacific, North Luzon Expressway, Makati Medical Center Foundation, Philex Group Foundation, Inc., and Maynilad.

Other partners included D.M. Consunji, Inc. (DMCI), the National Housing Authority (NHA), and Philippine Constructors Association (PCA).

Immediately after the typhoon, Tulong Kapatid deployed relief teams to the hardest hit areas and then raised over

PhP100 million in donations through a telethon program in cooperation with the Alagang Kapatid Foundation, and through a text donation campaign done by Smart.

At the suggestion of then Cabinet Secretary Rene Almendras, who chaired the government task force coordinating relief and rehabilitation efforts for survivors of Typhoon Pablo, Tulong Kapatid decided to use the funds raised for the construction of a model resettlement site.

Then provincial governor Corazon Malanyaon launched the "Building Back Better Movement" to provide strategic direction for the rehabilitation and reconstruction activities in the province.

"Working hand in hand with the provincial government of Davao Oriental, we have turned this tragedy into an opportunity to 'build back better' by helping set up a disaster-resilient community," Pangilinan said.



"This has truly been a blessing to all of us. We cannot thank Tulong Kapatid enough and of course, Mr. Manny V. Pangilinan, for extending their help to our community."

Rep. Corazaon Malanyaon Former Governor of Davao Oriental and now Representative, 1st District of Davao Oriental In line with the Movement's objectives, Tulong Kapatid adopted innovative approaches in designing and building the resettlement project and came up with a design for the housing units which exceeded the usual specifications for social housing.

Each MVP Home housing unit stands within a 60 square-meter lot with a 26.8 square-meter floor plan area. The houses are built duplex-style — rather than as bunk houses — with each unit equipped with two bedrooms, a bathroom, and a kitchen. They are designed to withstand up to 280 kph winds.

Collaborating with other Tulong Kapatid members, PSF ensured that the resettlement site is equipped with all necessary utilities. Electric power was provided by the Davao Oriental Electric Cooperative with the assistance of the One Meralco Foundation. Water filtration devices from Maynilad were also distributed during the first phase of house construction.

Land development was implemented by the NHA, while the provincial government handled the provision of the water and waste system. The construction of all 266 houses and the community clinic was funded by Tulong Kapatid. Makati Medical Center, through its partner organization Makati Shangri-La, provided medical equipment and furniture for the community health clinic.

PLDT and Smart engineers and architects dedicated their services for the design and technical monitoring of the MVP Homes project.

PSF President Esther Santos said all the partners worked doubly hard to realize this endeavor.

"From the companies under the MVP Tulong Kapatid to our partners – DMCI, NHA, PCA, and the provincial government of Davao Oriental – everyone really took part in turning this project into a reality. We hope that this will be a stepping stone for the beneficiaries to start anew and make great beginnings."

Some of the beneficiaries participated in the house building after undergoing training through the Galing Mason program initiated by DMCI President and Chief Operating Officer Jorge Consunji and Allado Construction Company, Inc. President and General Manager Ramon Allado, in partnership with cement company Holcim.

Under this program, 35 men were trained in various skills including excavating, layouting, and finishing that enabled them to help build homes in the resettlement area. Some of the trained workers are now being hired for other housing projects in Typhoon Yolanda areas.

For beneficiaries like Arnie Chavez, the experience was like breaking free from the seemingly insurmountable life struggles that were intensified by Typhoon Pablo. Today, they can find jobs and earn a living because they have the necessary skills.

The people of Davao Oriental are standing up from the ruins of Typhoon Pablo, and they are determined to "Build Back Better." With effective and empathetic governance as well as support from the community and companies who care about them, there is reason to be optimistic.

"The Typhoon Pablo aftermath was really difficult for us. But with your continuous support, we are recovering and getting on with our lives once again," Malanyaon said.



"Ngayon ko lang po naranasan tumira sa bahay na gawa sa semento. Di ko po alam kung maiintindihan ng iba yung feeling na safe ka sa loob ng sarili n'yong bahay..."

("Only now have I experienced living in a house made of cement. I don't know if other people would understand the feeling that you're safe inside your own house.")

- Michelle, daughter of Juliet de Jesus who is a fruit vendor at Baganga Public Market and beneficiary of MVP Home



SyCip Gorres Velayo & Co. 6760 Ayala Avenue 1226 Makati City Philippines Tel: (632) 891 0307 Fax: (632) 819 0872 ey.com/ph BOA/PRC Reg. No. 0001, December 14, 2015, valid until December 31, 2018 SEC Accreditation No. 0012-FR-4 (Group A), November 10, 2015, valid until November 9, 2018

# Independent Limited Assurance Statement to the Management of PLDT, Inc. and Subsidiaries (PLDT Group)

We have performed limited assurance procedures in relation to **PLDT Group's** Sustainability Report 2016 ("The Report") as detailed in the "Subject Matter" below.

### The management's responsibility

PLDT Group's Sustainability Report 2016 has been prepared by the Management of PLDT Group, which is responsible for the collection and presentation of the information it contains and for maintaining adequate records and internal controls that are designed to support the sustainability reporting process. There are currently no legally prescribed requirements relating to the preparation, publication and verification of sustainability reports.

### The auditor's responsibility

Our responsibility in performing our limited assurance activities is to the Management of PLDT Group only and in accordance with the terms of reference agreed with them. We do not accept or assume any responsibility for any other purpose or to any other person or organization. Any reliance any such third party may place on the Report is entirely at their own risk.

Our review was limited to the information on the select indicators set out within the Report from 01 January 2016 to 31 December 2016 and our responsibility does not include:

- Any work in respect of sustainability information published elsewhere on PLDT Group's Annual Report, website and other publications,
- Sustainability information prior to 01 January 2016 and subsequent to 31 December 2016, and
- Management's forward looking statements such as targets, plans and intentions.

Our multi-disciplinary team has the required competencies and experience to conduct this assurance engagement. Our professionals have experience in both assurance skills and in the applicable subject matter including environmental, social and financial aspects.

### Reporting criteria

As a basis for the assurance engagement, we have used relevant criteria in the sustainability reporting guidelines of the Global Reporting Initiative (GRI G4). We consider these reporting criteria to be relevant and appropriate to review the Report.



### Assurance standard used and level of assurance

Our limited assurance engagement has been planned and performed in accordance with the PSAE 3000, *Assurance Engagement Other Than Audits or Reviews of Historical Financial Information*. We have also considered the GRI G4 reporting guidelines in conducting our limited assurance procedures.

A limited assurance engagement consists of making enquiries and applying analytical and other limited assurance procedures. Our procedures were designed to provide a limited level of assurance and as such do not provide all the evidence that would be required to provide a reasonable level of assurance.

The procedures performed depend on the assurance practitioner's judgment including the risk of material misstatement of the specific activity data, whether due to fraud or error. While we considered the effectiveness of Management's internal controls when determining the nature and extent of our procedures, our review was not designed to provide assurance on internal controls. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### Scope of work

We have been engaged by the Management of PLDT Group to perform limited assurance on selected indicators of the Report as set out in the Subject Matter below.

### Subject matter

The Subject Matter and GRI indicators for our limited assurance engagement are as follows:

- 1. Economic
  - a. Aspect: Economic Performance
    - EC1 Direct economic value generated and distributed
- 2. Environmental
  - a. Aspect: Energy
    - i. **EN3** Energy consumption within the organization
  - b. Aspect: Water
    - i. **EN8** Total water withdrawal by source
  - c. Aspect: Emissions
    - i. **EN16** Energy indirect greenhouse gas (GHG) emissions (Scope 2)
- 3. Labor practices and decent work
  - a. Aspect: Employment
    - i. **LA1** Total number and rates of new employee hires and employee turnover by age group, gender, and region
    - ii. LA3 Return to work and retention rates after parental leave, by gender



- b. Aspect: Training and Education
  - LA9 Average hours of training per year per employee by gender, and by employee category
- c. Aspect: Diversity and Equal Opportunity
  - LA12 Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity

### What we did to form our conclusions

The procedures performed aim to verify the plausibility of information. We designed our procedures in order to state whether anything has come to our attention to suggest that the Subject Matter detailed above has not been reported in accordance with the reporting criteria cited earlier. In order to form our conclusions, we undertook the steps below:

- 1. Interviewed PLDT Group's Sustainability team to:
  - a. Understand principal business operations
  - b. Appreciate key sustainability issues and developments
  - c. Map out information flow for sustainability reporting and the controls on information collation
  - d. Identify data providers with their responsibilities, and
  - e. Recognize the likelihood of possible manipulation of sustainability data
- Conducted process walkthrough of systems and processes for data aggregation and reporting, with relevant personnel to understand the quality of checks and control mechanisms, to assess these controls in relation to the concerned subject matters in the Report.
- 3. Interviewed employees and management (Sustainability, Human Resources, Engineering) to understand key sustainability issues related to the select indicators and processes for the collection and accurate reporting of performance information
- Obtained documentation through sampling methods to verify assumptions, estimations and computations made by Management in relation to the concerned subject matters in the Report
- 5. Verified that data and statements had been correctly transcribed from corporate systems and/or supporting evidence, into the Report
- 6. Obtained various certifications, audit reports and financial statement report in relation to the concerned subject matters in the Report



### Our independence

SGV has provided independent assurance services in relation to PLDT Group's Sustainability Report 2016. In conducting our assurance engagement we have met the independence requirements of the Philippine Institute of Certified Public Accountants, Code of Professional Conduct and Ethics. Our SGV independence policies prohibit any financial interests in our clients that would or might be seen to impair independence. Each year, partners and staff are required to confirm their compliance with the firm's policies.

### Observations and areas for improvement

Our observations and areas for improvement will be raised in an internal report to PLDT Group's Management. These observations do not affect our conclusion on the Report set out below.

### Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information in the Report was not presented fairly and calculated in all material respects in accordance with the reporting criteria detailed above.

SYCIP, GORRES, VELAYO & CO.

Ramon D. Dizon

Partner

CPA Certificate No. 46047

SEC Accreditation No. 0077-AR-4 (Group A),

May 1, 2016, valid until May 1, 2019

Tax Identification No. 102-085-577

BIR Accreditation No. 08-001998-17-2015,

February 27, 2015, valid until February 26, 2018

PTR No. 5908692, January 3, 2017, Makati City

2 June 2017

## **GRI CONTENT INDEX**

	General Standard Disclosure	Page No.	External Assurance
G4-1	Statement from the senior-most decision maker of the organization	4	
G4-2	Description of key impacts, risks, and opportunities	33	
G4-3	Name of organization	About the Report	
G4-4	Primary brands, products, and/or services	9	
G4-5	Location of organization's headquarters	Philippines	
G4-6	Number of countries of operation	One	
G4-7	Nature of ownership and legal form	5	
G4-8	Markets served (geographic breakdowns)	6	
G4-9	Scale of reporting organization	I, 64	
G4-10	Number of employees by employment contract	64	
G4-11	Percentage of employees under collective bargaining	Not included in report	
G4-12	Describe organization's supply chain	39	
G4-13	Report any significant changes in the reporting period	N/A	
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	N/A	
G4-15	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	72	
G4-16	Memberships in associations (such as industry associations) and national or international advocacy organizations (memberships maintained at organizational level)	24	
G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents	Refer to 2016 Annual Report	
G4-18	Explain the process for defining the report content and the aspect boundaries	19, 27	
G4-19	List all the material aspects identified in the process for defining report content	20	
G4-20	For each material aspect, report the aspect boundary within the organization	86	
G4-21	For each material aspect, report the aspect boundary outside the organization	86	

### G4-20. G4-21

G4-20. G4-	Aspects	Relevant section	Material concerns	Within organization	Outside organization	Relevance outside the organization
	Energy		Energy Conservation	V		
	Water		Water Conservation	√		
Environment	GHG Emissions	Resource Efficiency	GHG Offset	√		
	Solid Waste	in Operations	Waste Management	√		
	Compliance with Environmental Standards		Meets Regulatory Standards	√		Concern of Regulators
Society	Community	Corporate Social Responsibility	Community Engagement Programs	V	√	This applies to all CSR programs and partners.
Product Responsibility	Product and Service Labeling	Products and Services	Transparency of Products and Services	√		
	Customer Privacy	Customer Data Privacy and Information Security	Client Information Security/Privacy	V		Concern of Customers
	Compliance	Compliance with Regulations	Compliance with Regulatory Requirements	√		Concern of Regulators
	Employment		Labor Practices and Employee Relations	√		
Labor Practices	Occupational Health and Safety	Attracting and Retaining Talent	Safe Working Environment for Employees	√		
	Training and Education	rarerre	Employee Development	√		
	Anti-Corruption	Ethical Business Practices	Transparency in System	√		
Economic	Risk and Opportunities	Managing Business Risk	Balancing Revenue with Cost and Risk	√		

### **GRI CONTENT INDEX**

	General Standard Disclosure	Page No.	External Assurance
G4-22	Any statements from previous report has been restated and reason for restatement	N/A	
G4-23	Significant changes in scope and aspect boundaries from previous reporting period	About the Report	
G4-24	List of all stakeholder groups engaged by organization	22-24	
G4-25	Report basis for identification and selection of stakeholders	22-24	
G4-26	Organization's approach to stakeholder engagement	22-24	
G4-27	Key topics and concerns raised through stakeholder engagement	22-24	
G4-28	Reporting period for information provided	Jan to Dec 2016	
G4-29	Date of most previous report	June 2016	
G4-30	Reporting cycle	Annual	
G4-31	Contact point for questions	About the Report	
G4-32	GRI Content Index Sheet	86	
G4-33	Policy/practice of seeking external assurance	82	
G4-34	Governance structure of the organization – committees	28-29	
G4-35	Process for delegating authority for EES topics from highest governance body to senior executives and employees	29	
G4-36	Has organization appointed an executive level position with EES responsibility	Yes	
G4-37	Report process for consultation between stakeholders and highest governance body	28-29	
G4-38	Composition of highest governance body and its committee	29-30	
G4-39	Report whether chair of highest governance body is also an executive officer	Chair of the Corporate Governance Committee is an Executive Director:	
G4-40	Nomination and selection process for highest governance body and its committees	Refer to 2016 Annual Report	
G4-41	Process in place to avoid conflict of interest at workplace	35	
G4-42	Role of highest governance body in developing and approving values, mission, strategies, policies, and goals	29	
G4-43	Measures taken to enhance collective knowledge of governance body on EES topics	30	
G4-44	Process for evaluation of highest governance body performance, and actions taken in response to evaluation	Refer to 2016 Annual Report	
G4-45	Role of highest governance body in identifying EES risks, impact, and opportunities	29	
G4-46	Role of highest governance body in reviewing effectiveness of risk management process for EES	29	
G4-47	Frequency of review of EES risks, impact, and opportunities	29	
G4-48	Highest committee or position that formally reviews and approves SR	The President formally approves the Annual Financial and Sustainability Reports.	
G4-49	Process for communicating critical concerns	29	
G4-50	Nature and quantity of critical concerns communicated	No major concerns were raised.	
G4-51	Remuneration policy of highest governance body	Refer to 2016 Annual Report	
G4-52	Process for determining remuneration	Refer to 2016 Annual Report	
G4-56	Organization's values, principles, standards, and norms	8	
G4-57	Internal/external mechanism for seeking advice on ethical and lawful behavior related to integrity — such as helplines	36	
G4-58	Internal/external mechanism for reporting concerns about unethical or unlawful behavior related to integrity – such as helplines	36	

### **GRI CONTENT INDEX - G4-32**

Category		Specific Disclosure	Page No.	External Assurance
Economic	Aspect: Economic	Performance		
	G4-DMA	Disclosure on Management Approach	Refer to 2016 Annual Report	
	G4-ECI	Direct economic values generated and distributed, including revenues and other costs	I	√
Environment	Aspect: Energy			
	G4-DMA	Disclosure on Management Approach	54	
	G4-EN3	Energy consumption within the organization	55	Yes - PLDT electricity only
	G4-EN6	Reduction in energy consumption	54	
	Aspect: Water			
	G4-DMA	Disclosure on Management Approach	54	
	G4-EN8	Total water withdrawal by source	55	Yes - water consumption of PLDT only
	Aspect: Emissions			
	G4-DMA	Disclosure on Management Approach	54	
	G4-EN15	Direct GHG emissions (Scope 1)	55	
	G4-EN16	Indirect GHG emissions (Scope 2)	55	Yes - PLDT emissions only
	Aspect: Effluents a	nd Waste		
	G4-DMA	Disclosure on Management Approach	58	
	G4-EN23	Total weight of waste by type and disposal method	58	
	Aspect: Compliance	te		
	G4-DMA	Disclosure on Management Approach	37	
	G4-EN29	Monetary value of significance fines due to non-compliance with environmental laws and regulations	None	
Social	Aspect: Employme	ent		
	G4-DMA	Disclosure on Management Approach	66	
	G4-LAI	Total number and rate of employee turnover by age group, gender, and region	64	V
	G4-LA2	Benefits provided to full time employees that are not provided to temporary or part-time employees	66	
	G4-LA3	Return to work and retention rates after parental leave by gender	67	√
	Aspect: Diversity a	and Equal Opportunity		
	G4-LA12	Composition of governance bodies and employees according to gender, age group, minority, group, and other diversity indicators	29, 64	V

Category	Specific Disclosure		Page No.	External Assurance
Social	Aspect: Occupational	Health & Safety		
	G4-DMA	Disclosure on Management Approach	69	
	G4-LA 6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and gender	69	
	Aspect: Training & Edu	cation		
	G4 DMA	Disclosure on Management Approach	66-67	
	G4-LA9	Average hours of training per year per employee by employee category	67-68	Yes - PLDT and Smart training hours only
	Aspect: Non - Discrim	nination		
	G4 DMA	Disclosure on Management Approach	35	
	G4-HR3	Total number of incidents of discrimination and actions taken	None	
	Aspect: Child Labor			
	G4 DMA	Disclosure on Management Approach	35	
	G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor and measure taken to abolish it	None	
	Aspect: Forced or Co			
	G4 DMA	Disclosure on Management Approach	35	
	G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced labor and measure taken to abolish it	None	
	Aspect: Security Pract			
	G4 DMA	Disclosure on Management Approach	35	
	G4-HR7	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	All our security personnel are outsourced and are regularly trained by agency on human rights topics.	
	Aspect: Local Commu	nities		
	G4 DMA	Disclosure on Management Approach	74	
	G4-SOI	Percentage of operations with implemented local community engagement, impact, assessments, and developing programs	74	
	G4-SO2	Operations with significant actual and negative impact on local community	74	
	Aspect: Anti-Corruption	on		
	G4 DMA	Disclosure on Management Approach	35	
	G4-SO4	Communication and training on anti-corruption policies and procedures	35	
	G4-SO5	Confirmed incidents of corruption and actions taken	There were no such incidents.	

Category	Specific Disclosure		Page No.	External Assurance
	Aspect: Compliance			
	G4 DMA	Disclosure on Management Approach	37	
	G4-SO8	Monetary value of significant fines for non-compliance with laws and regulations	None	
	Aspect: Product and Service Labeling			
	G4 DMA	Disclosure on Management Approach	37	
	G4-PR3	Product and service information labeling	9	
	G4-PR4	No. of non-compliance issues with voluntary codes governing product/service information	None	
	Aspect: Marketing Communications			
	G4 DMA	Disclosure on Management Approach	37	
	G4-PR7	Incidents of non-compliance to marketing laws and codes	None	
	G4-PR9	Significant fines for non-compliance with laws and regulations concerning the use of products and services	None	
	Aspect: Customer Privacy			
	G4 DMA	Disclosure on Management Approach	37	
	G4-PR8	Total number of complaints regarding breaches of customer privacy and losses of customer data	There were no such complaints.	



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