Major multinationals at forefront of drive to price carbon and meet climate targets but many companies still unprepared

September 19, 2016: Internal carbon pricing is moving from theory to practice with take up at more than 1,200 companies, a 23% increase year on year, with close to 150 embedding a carbon price deep into their corporate strategy, according to the latest research by CDP, the global climate change disclosure non-profit.

In Europe the number of companies applying an internal price on carbon or planning to do so represent 32% of companies worldwide, with companies in the UK (120), France (54) and Germany (45) leading the way in disclosing their use of this carbon-risk accounting tool.

Nearly 40 major multi-national companies with a combined market cap of €1.3 trillion have disclosed a tangible impact to their business as a result of internalizing a cost on carbon. They describe a variety of ways in which this tool has directly shifted investments toward energy efficiency measures, low-carbon initiatives, energy purchases, and the development of new low-carbon product offerings.

Examples include:

- **Novartis** and **SUEZ** are selecting major GHG reduction projects and measures based on the cost savings they generate, as determined by their internal carbon price.
- **Societe Generale** has saved EUR 13 million on overheads with a EUR10/tCO_2e over three years.
- **DSM** and **Saint-Gobain** are now pricing carbon internally to underscore strategic shifts towards low-carbon operations and products
- **Nissan** and **Anglo American** use an internal carbon price to stimulate research and development into low carbon technologies such as fuel cells.

These companies have seen the value of an internal price on carbon in helping make the business case for low-carbon investments, and are now shifting their use of the tool towards delivering company-wide strategic advantage and meeting their climate targets. CDP's report includes a series of new case studies detailing how internal carbon pricing is being embedded into corporate strategy.

"Companies not yet incorporating a price on carbon are at risk from having a too-short business planning horizon given how fast climate change issues are moving", **says Paul Simpson, CEO of CDP**. *"Incorporating climate change as a line item delivers improvements in managing the environmental risks associated with climate change, which is why investors are looking for companies to carbon price their business. Companies are responding – our research shows that carbon pricing is gaining popularity across multiple markets. In particular, we're seeing a significant rise over last year in the use of companies pricing their own carbon pollution in the US, Brazil, Mexico, India and Japan."*

Number of companies using / planning to use an internal price on carbon

Country	2015 Total	2016 Total	Increase from 2015 - 2016
Brazil	27	47	74%
Greater China	84	125	49%
India	27	44	63%
Japan	69	104	51%
Mexico	13	26	100%
Republic of Korea	48	64	33%
USA	147	210	43%

This year's CDP disclosures come against a backdrop of growing momentum to address global warming pollution by national and local governments, new drivers like China's impending carbon market, and the recent ratification of the Paris Agreement by the US, Brazil and China. Last year the number of companies pricing their carbon emissions tripled, continuing a rise from just a handful in 2013.

Over 175 nations have signed the Paris Agreement, in the process of ratification, agreeing to limit the global average temperature rise to well below 2°C above pre-industrial levels, with over half of these planning to use carbon pricing and other market mechanisms to achieve their emissions reduction goals. Companies are recognizing the strong signals: data released by CDP today, shows that over 600 major international

corporations with a combined market cap of over €10 trillion are already starting to factor the Paris Agreement in their business plans weeks before the major environmental legislation becomes law.

Despite the momentum post Paris however, at least 500 companies who potentially face direct regulatory risks (due to their sector or geography) disclosed to CDP that they do not have, or even plan to implement, an internal carbon price within their business, which may concern some investors.

"As a long-term investor, CalSTRS takes climate change very seriously and is focused on mitigating potential permanent capital losses and adversely affected investment returns across our portfolio. This newly-released data from CDP is vitally important for the entire shareholder community as we hold portfolio companies accountable in managing and disclosing climate change risks, and ultimately demonstrating they are prepared for a low-carbon economy," **says Jack Ehnes, CEO, California State Teachers' Retirement System (CalSTRS)**.

ENDS

Notes to editors:

Internal carbon pricing refers to the practice of companies applying a monetary value to their emissions outside of a regulatory regime. This year's disclosures to CDP show that many link their internal price to current or expected market prices, with prices allocated by companies ranging from less than 1USD per tonne to over 800USD. Adhering to this practice helps companies prepare for and hedge against future regulatory changes, and ensures long term capital investments don't become too costly, or even obsolete, in an environment where greenhouse gas emissions carry a price.

CDP's 2016 global carbon pricing report is available here.

CDP's policy brief, *How business is preparing for the Paris Agreement*, is available here.

About CDP
CDP, formerly Carbon Disclosure Project, is an international, not-for-profit organization providing the global system for companies, cities, states and regions to measure, disclose, manage and share vital information on their environmental performance. CDP, voted number one climate research provider by investors, works with 827 institutional investors with assets of €89 trillion and 89 purchasing organizations with a combined annual spend of over €2.4 trillion, to motivate companies to disclose their impacts on the environment and natural resources and take action to reduce them. CDP now holds the most comprehensive collection globally of primary corporate environmental data and puts these insights at the heart of strategic business, investment and policy decisions. Please visit www.cdp.net/ or follow us @CDP to find out more.

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Disclosure excerpts from some of the companies reporting impacts from their internal carbon pricing:

ACCIONA S.A., Utilities, Spain
"ACCIONA stays ahead of the creation of new carbon pricing mechanisms and the price increase in existing markets by establishing an internal price for its medium to long term projects. This shadow price drives investments in technology and low carbon production processes so as to mitigate the risk created by the possible inclusion of certain activities of ACCIONA in systems that tax emissions with high prices, such as those estimated by the European Investment Bank or the European Bank for Reconstruction and Development of €35/tCO2 in 2015, €45/tCO2 in 2030 and €72/tCO2 in 2050. The Company uses shadow prices to always select the most energy efficient options and cleanest fuels".

Anglo American Platinum, Materials, South Africa
"*Amplats employs an internal price of carbon for:*
- *Planning and justifying climate related investments;*
- *Stimulating research and development of PGM related low carbon technologies such as fuel cells;*
- *Identifying and prioritising climate change related risks and opportunities;*
- *Incentivising efficiencies across the business;*
- *Buffering the impact of South Africa's proposed carbon tax;*
- *Gaining a long term competitive advantage; and*
- *Engaging with suppliers on climate change strategies and greenhouse gas reduction measures".*

Grupo Nutresa S.A., Consumer Staples, Colombia
"*During 2015, Grupo Nutresa developed a proposal of a model to assign a value to carbon emissions within the economic feasibility studies of projects. This allows direct technological upgrading toward a low–carbon industrial*

development. The inclusion of a carbon price for the internal assessment of CapEx projects began to be included since January 2016, an example was the feasibility study for the installation of photovoltaic solar energy system on the roofs of the Rionegro Factory of Chocolate business. This project will enable the implementation of photovoltaic pilot, dropping by 839,8 ton of CO2 eq /year in GHG emissions. The investment required included the price of carbon"

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Microsoft Corporation, Information Technology, USA

"The carbon fee affects investment decisions by providing both an incentive and the financial justification for internal efficiency initiatives. It also helps to drive culture change by raising internal awareness of the environmental implications of our business and to establish a discipline at scale across the organization, guiding the energy and travel choices made both at corporate headquarters and through local subsidiaries. In FY15, the carbon fee fund was used to support investments in:

a. 14 internal efficiency initiatives that otherwise likely would not have taken place, for a project lifetime reduction of $596,395 and 8.896 mtCO2e.

b. 2,699,210 MWh in green power in the United States, earning Microsoft the US Environmental Protection Agency (EPA)'s Green Power Partnership as the number two purchaser in the United States.

c. 18 carbon offset projects in 16 countries to reduce nearly 550,000 mtCO2e and support the development of a low-carbon economy in emerging nations".

Sky plc, Consumer Discretionary, United Kingdom

"We use an internal price of carbon for to help us make decisions on the investments we make in energy efficiency and on site renewable energy in addition to standard simple pay back and Investment Rates of Returns (IRR)...We use an internal price of carbon to help build a more robust business case in investments made, particularly for the case of on-site renewable energy when simple pay backs are typically longer than other business investments made. All business cases developed in this way are reviewed by the finance teams for sign-off. Examples of where this has been used is in the investment of on-site renewables at our site in Osterley, West London, where we have invested in excess of £7m in a Combined Cooling and Heating Power Plant (CCHP), 100KW wind turbine and PVs".

Novartis, Health Care, Switzerland

"Together with the new Environmental Sustainability vision 2030 and targets 2020, Novartis leadership has endorsed a carbon price of USD 100 per ton (t) of carbon dioxide equivalents, in line with the cost of climate change to society as calculated by the World Bank. Building a carbon price into investment decisions is important as it helps identify projects that will most cost-effectively reduce GHG emissions.Starting in 2016, we will select major GHG reduction projects and measures based on the cost savings they generate, as determined by our internal carbon price of USD 100/tCO2e. A cross-divisional team consisting of energy experts from divisions of Novartis Business Services – Real Estate and Facility Services will prioritize major projects and actions necessary to achieve our 2020 GHG reduction target. Projects will be submitted to top management for approval".

Societe Generale, Financials, France

"...the Group is one of the first banks to have implemented in 2011 an "Internal Carbon Tax", currently amounting to EUR 10 per ton emitted. The proceeds raised in the business lines are used to fund internal environmental efficiency initiatives.The goal of this scheme is to show that environmental measures are also opportunities to create value and innovation for the bank. A committee makes the selection, ensuring that each initiative implemented has demonstrated its environmental additionality and represents an economic interest for the Group.In 2015, 56 initiatives won awards totalling EUR 3.4 million. Over the three years of this scheme's existence, all 119 winning initiatives, involving building, IT, paper, transport or waste (since 2015), enabled annual recurring savings of an average of EUR 13 million on overheads, an average of 4,700 tonnes per year of CO2 and an average of 30 GWh of energy savings".

TD Bank Group, Financials, Canada

"Having an internal price on carbon aligns with our approach of embedding climate risks in our business strategy. Applying an internal price on carbon is an effective business incentive to drive investment in GHG reduction activities. The learnings from our carbon neutrality and internal price on carbon have also driven an increased commitment to developing a range of low-carbon financial products including the financing for residential renewables and energy efficiency projects, insurance for hybrid and electric vehicles, and the issuance of a $500 million green bond...Every tonne of emissions signifies a real cost to our business groups; therefore our internal price on carbon acts as a significant driver for investment in GHG reduction initiatives. The most significant investment decisions have been made through our Enterprise Real Estate and Green IT groups. The potential for avoided costs and increased environmental benefits has led to the development of net zero energy branches; design standards for new stores that are 45% more energy efficient; solar installations across over 122 facilities; a LEED platinum energy efficiency data centre; retrofitting of existing buildings; and investment in several energy-efficient IT solutions. Our total GHG emissions from energy have decreased 20% from 2008, despite having a 26% growth in the space we occupy and doubling our revenue".

Companies disclosing impacts from internal carbon pricing

Company name	Country	Sector
ACCIONA S.A.	Spain	Utilities
Adobe Systems, Inc.	USA	Information Technology
Anglo American Platinum	South Africa	Materials
ARÇELIK A.S.	Turkey	Consumer Discretionary
Astellas Pharma Inc.	Japan	Health Care
Banco Popular Espanol S.A.	Spain	Financials
Bic	France	Industrials
Bouygues	France	Industrials
Colcafe	Colombia	Industrials
CTT - Correios de Portugal SA	Portugal	Industrials
ENAGAS	Spain	Utilities
Essar Oil	India	Energy
General Motors Company	USA	Consumer Discretionary
Goldman Sachs Group Inc.	USA	Financials
Grupo Nutresa S.A.	Colombia	Consumer Staples
Harmony Gold Mining Co Ltd	South Africa	Materials
Iberdrola SA	Spain	Utilities
Kering	France	Consumer Discretionary
La Poste	France	Industrials
LG Electronics	South Korea	Consumer Discretionary
Mahindra & Mahindra	India	Consumer Discretionary
Microsoft Corporation	USA	Information Technology
National Grid PLC	United Kingdom	Utilities
Nissan Motor Co., Ltd.	Japan	Consumer Discretionary
Nomura Holdings, Inc.	Japan	Financials
Novartis	Switzerland	Health Care
NRG Energy Inc	USA	Utilities
Rio Tinto	United Kingdom	Materials
Sky plc	United Kingdom	Consumer Discretionary
Societe Generale	France	Financials
SSE	United Kingdom	Utilities
TD Bank Group	Canada	Financials
TETRA PAK	Sweden	Materials
Vina Concha y Toro S A	Chile	Consumer Staples
Walt Disney Company	USA	Consumer Discretionary
Wisconsin Energy Conservation Corporation (WECC)	USA	Industrials

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