

Real examples of use of climate change information and impact of XBRL

Peeking at the Climate Change Data from the Carbon Disclosure Project

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The views expressed in this presentation are those of the presenter

CARBON DISCLOSURE PROJECT

CDSB
Climate Disclosure Standards Board

FUJITSU

XBRL
eXtensible Business Reporting Language

BRAG

Carbon What?

Carbon what?

- CDP's mission:
"to accelerate solutions to climate change and water management by putting relevant information at the heart of business, policy and investment decisions"
- CDP is the **global system** for measurement and reporting of climate change information
- Annual climate change information request
 - Investors
 - Purchasing organizations
 - Governments
 - CDP Cities
- Climate, Water, Forests



"The work of the Carbon Disclosure Project is crucial to the success of global business in the 21st century. No other organization is gathering this type of corporate climate change data and providing it to the marketplace."

Ban Ki Moon
Secretary General of United Nations

Carbon what?

655

Institutional Signatory
Investors in 2012

\$78T

AUM represented by
CDP's signatory
investors in 2012

50

CDP Supply Chain
Members in 2011

~ 4000

Number of Companies
reporting via CDP in 2012

90%

Proportion of Euro 300 companies
reporting via CDP in 2011.

81%

Proportion of Global 500 companies
reporting via CDP in 2011

68%

Proportion of S&P 500 companies
reporting via CDP in 2011

CARBON DISCLOSURE PROJECT

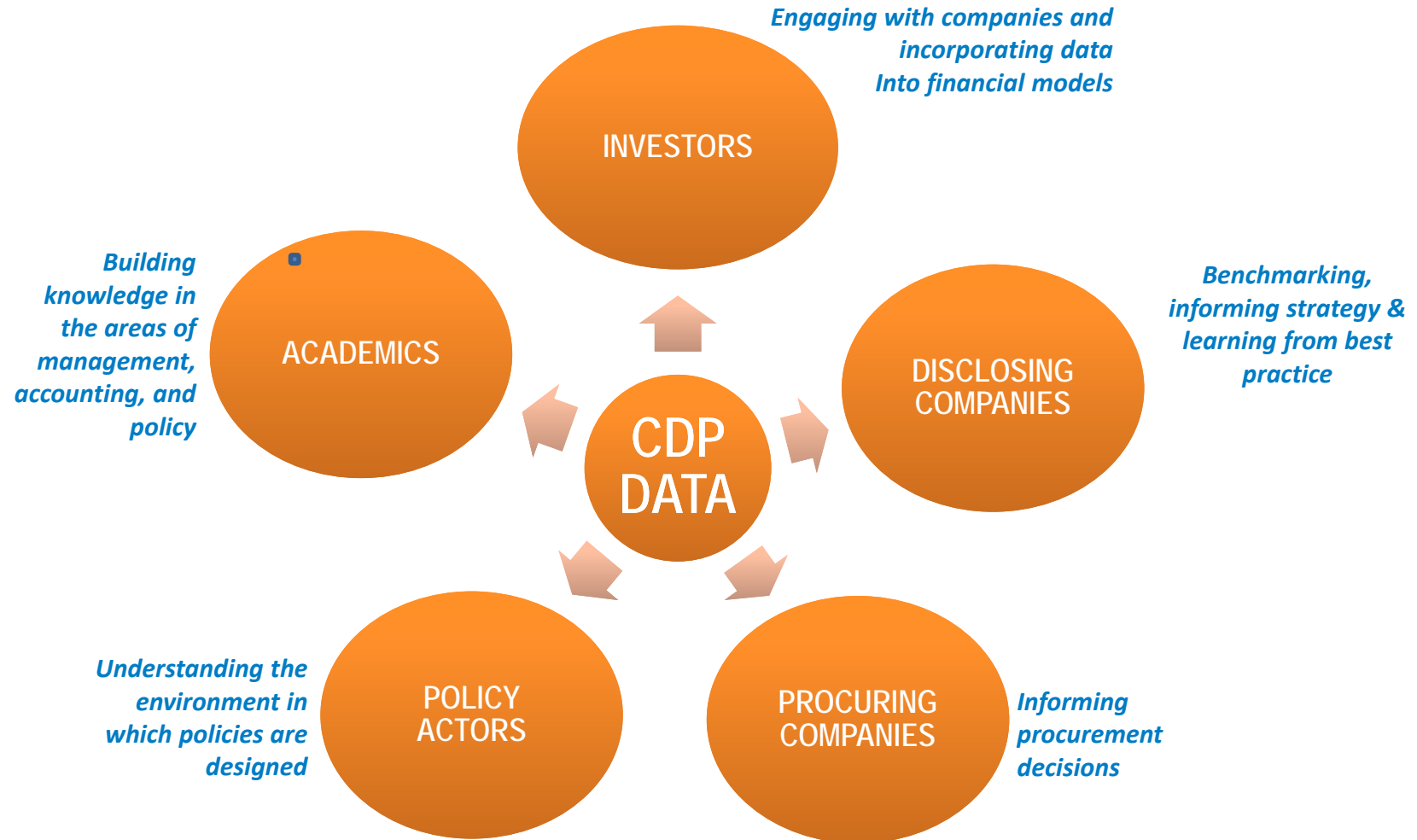
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Carbon what?



Agenda

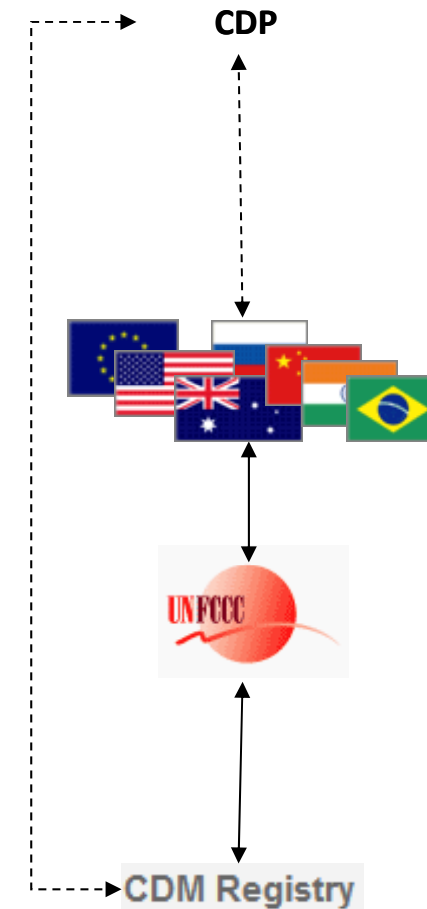
1. Carbon what?
2. Public available data sets
3. What we can do with it now
4. XBRL role

What data sets are there available?

OVERVIEW

Data sets - overview

Data	Mainstream use
Corporate/product emissions	(B2B) GHG accounting, marketing
Corp. reductions, governance, R&ops	Investor
Country/region emissions by site/facility	Mitigation policy, Climate modelling
Ownership of allowances	Carbon markets
World emission by country/region	Mitigation and adaptation policies
Country policies/strategies	Climate modelling
Emission reduction by project/country	Mitigation policies
Ownership of CER/ERU	Carbon Markets



Data sets - overview

CDP Data is used by many Data Providers, Rating Agencies, Channels and Index Providers

Global Data Partners:

Bloomberg

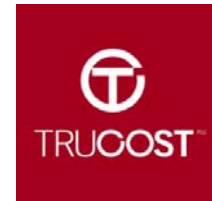
Technical Data Partners:



Gold Partners:



THOMSON REUTERS



Silver Partners:



CSRHUB™

ENVIRON

VERDANTIX



oekom research



POSCO RESEARCH INSTITUTE

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What can we do, now?

EXAMPLES OF REAL APPLICATIONS

Risks and opportunities - direct

Bloomberg Our Company | Professional | Anywhere

Sandy's Blackouts Pressure Utilities to Bury Power Lines

By Julie Johnsson, Benjamin Haas and Mark Chediak - Nov 6, 2012 2:05 PM GMT

Super storm Sandy's record blackouts and prolonged recovery laid bare the U.S. electrical grid's vulnerability to wind and flood, renewing calls for utilities to invest billions to toughen their defenses against extreme weather that may become more common.

<http://www.bloomberg.com/news/2012-11-06/sandy-s-blackouts-pressure-utilities-to-bury-power-lines.html>

Risks and opportunities - direct

Con Edison CDP 2012 disclosure

5.1c

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
8	Other physical climate drivers	Changes in frequency of extreme weather events; Likelihood of Category 1 or greater hurricanes making landfall in Con Edison's utility service territories are very likely to increase in the long term.	Other: Damage to critical infrastructure	>10 years	Direct	Likely	High

Investment in infrastructure for 2011 was just over \$2 billion; these investments represent building new and resilient infrastructure through the next 20-30 years.

Nov. 5 (Bloomberg) -- John Miksad, senior vice president for electric operations at Consolidated Edison Inc., talks about the costs of putting New York City and Westchester's power lines underground. Miksad, speaking with Bloomberg's Benjamin Haas, also discusses the increasing damage from storms and the possibility of climate change. (Source: Bloomberg)

"If the climate is changing and if we're going to experience these kinds of events more frequently, that's something that makes you step back and say, 'Maybe we do need to change the design of the system,'" Miksad said. "My thinking and my colleagues around the country are all saying storms seem more intense and more frequent."

Risks and opportunities - indirect

Sharp Says Thai Floods to Hurt Sales as Toyota, Ford Cut Output

October 27, 2011, 6:30 AM EDT



By Terje Langeland

Output losses from the floods that have inundated about 10,000 factories are spreading beyond Thailand as supplies of components for cars and computers are disrupted. Operating profit at Toyota may be reduced by 125 billion yen (\$1.6 billion) as plant closures cut production by 250,000 vehicles through Nov. 20, analysts at Credit Suisse Group AG led by Kunihiko Shiohara said in a report dated yesterday.

"Difficulties securing electronic components are likely to have increasingly significant impacts," Credit Suisse said in the report.

Investors use

Buy side

- **Engagement** with investee companies (Robeco, Hermes)
- **Voting on shareholder resolutions** (CalSTRS, Aviva)
- **Exclusion criteria** (Pax World Investments)
- **Rank, score and screen companies** (SWIP, Calvert)
- **Analysis of carbon sensitivity of portfolios** (Calvert, NEI Investments, Caisse de dépôt, Generation IM, Nordea)
- **Carbon trading risk analysis** (SWIP)

Sell side

- **Broker recommendations** (Société Générale)
- **Investment research** (Cheuvreux)
- **Peer and sector analysis** (Goldman Sachs)

Data providers

- **Integrate CDP data with financial data** (Bloomberg, Thomson Reuters)
- **Rank, score and screen companies** (Bloomberg)



Investment advisors

- **Investment research**
- **Risk models, sector analysis, country risk profiles**

Index providers

- **Markit Carbon Disclosure Leadership index**
- **FTSE CDP Carbon Strategy Index**
- **BNEF Global Corporate Renewable Energy Index 2011**

Research providers

- (e.g. EIRIS, Trucost, MSCI ESG, Sustainalytics)
- **Investment research**
- **Engagement with companies on behalf of investors**

Investors use

1.1 Engagement with Investor Companies - Hermes

“We use responses to the CDP questionnaire as one source of information for our engagements with companies on their environmental performance. We also engage with companies that do not participate in the CDP project. Both responses and non-responses thus inform our engagements with companies around the world.”

Hans-Christoph Hirt
Director, Hermes Equity Ownership
Services Limited



Investors use

2.1 Broker Recommendations – Société Générale

Société Générale

“We are using extensively the Carbon Disclosure Project to fine tune our CO2 Analysis on the companies we cover. The CDLI is a very important metric: the more transparent the company, the less risk to discover additional CO2 emissions (and costs) moving forward”

Investors use

2.2 Investment Research - Cheuvreux

Utilities vs. Carbon: Act III

CO₂ risks beyond the 2013 quota cliff

Analysis of the overall risks and opportunities related to climate change regulation and to CO₂ mitigation efforts in the sector in the light of new challenges for European utilities



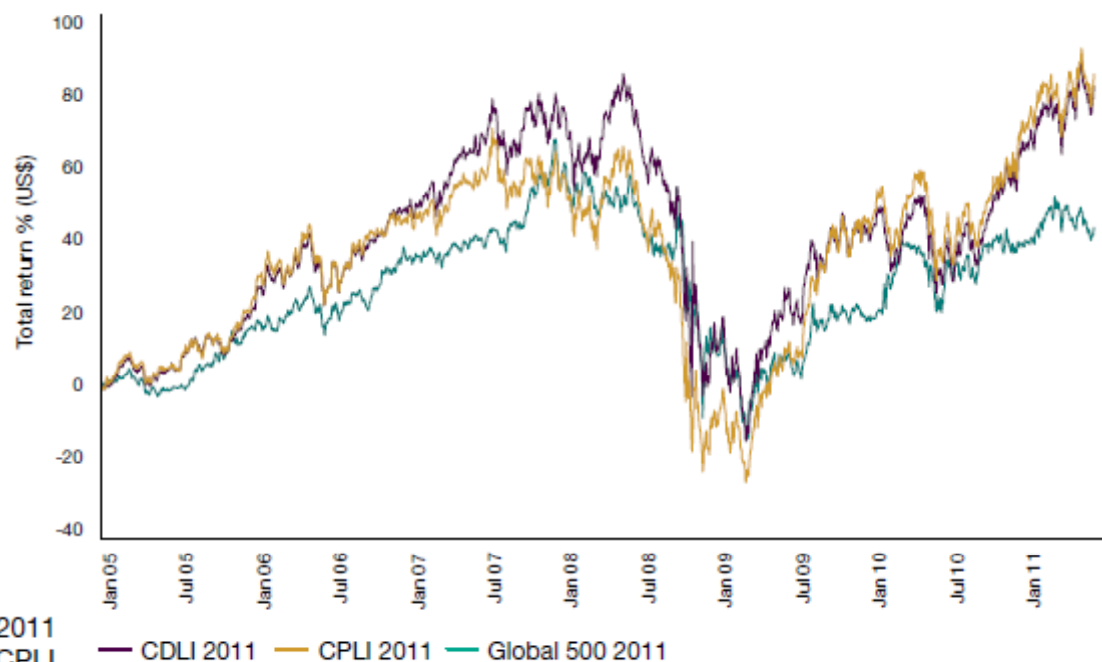
EMISSION REDUCTION TARGETS OF EUROPEAN POWER GENERATORS

kgCO ₂ / MWh	2009	2012 (forecast)	Mid-term target (before 2015)	Long-term target (after 2015)	Implied avg. reduction target p.a.
RWE	813 (730 in 2010)	771	670 in 2013 (incl. use of CDM/JI credits)	450 by 2020 Generation mix set to be 75% "zero or low carbon" by 2025	-2.8% to 2013; -4.7% to 2020
CEZ	630	-	530 by 2015 Absolute CO ₂ emissions will increase by 2015	350 in 2020	-2.8% to 2015 and -5.2% to 2020
Edison	558	-	-	-	N/A
SSE	491	-	-	300 by 2020	-4.4%
E.ON	476	-	360 in 2013 (Europe only; vs. 391 in 2010)	310 by 2020 (Europe only)	-2%
ENEL	427	-	-	-	N/A
EDP	362	254	270 by 2012	120 by 2020	> 9%
GDF Suez	366	-	Target for Electrabel Belgium only (-1.7mtCO ₂ cumulated reduction until 2015 based on 2007)		N/A
A2A	295	-	-	20% reduction in absolute emissions in 2020 (vs. 1995)	N/A
Centrica	293	217	270 by 2012	260 by 2020	-2.7%
Iberdrola	287	247	-	220 by 2020	-2.4%
Fortum	155 (189 in 2010)	198	<80 as a 5-year average in the EU		Target currently met (69)
EDF	126	-	-	EDF France: 31.5 in 2020 EDF Energy: -60% in 2020 vs 2006	France: -2.3% to 2020
Verbund	74	126	-50% by 2015 (CO ₂ intensity of thermal capacities)	-	N/A

Source: CDP 2010, CA Cheuvreux

Investors use

Figure 8: Total return % (US\$)



Statistical correlation, based on daily returns, between 2011 CDLI and the Global 500 is 0.5, and between the 2011 CPLI and Global 500 is 0.6 (from 1 January 2005 to 31 May 2011). It is likely that other factors will influence the relationship between financial performance and high carbon disclosure and performance scores. These could include the capability of the management team or the company's broader approach to identifying and capitalizing on opportunities or managing risks.

Source: Bloomberg

Emissions reductions

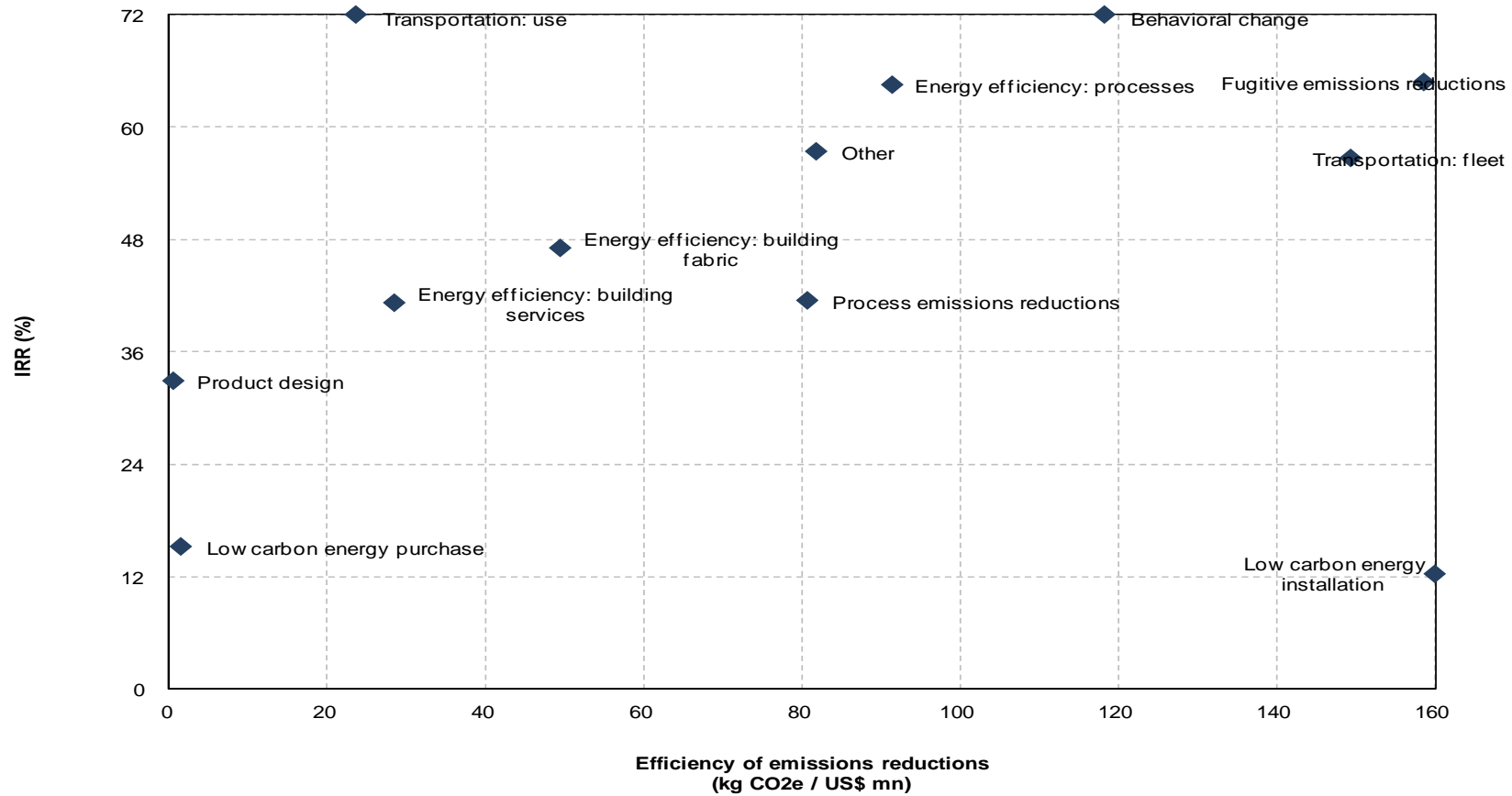
3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, estimated CO2e savings

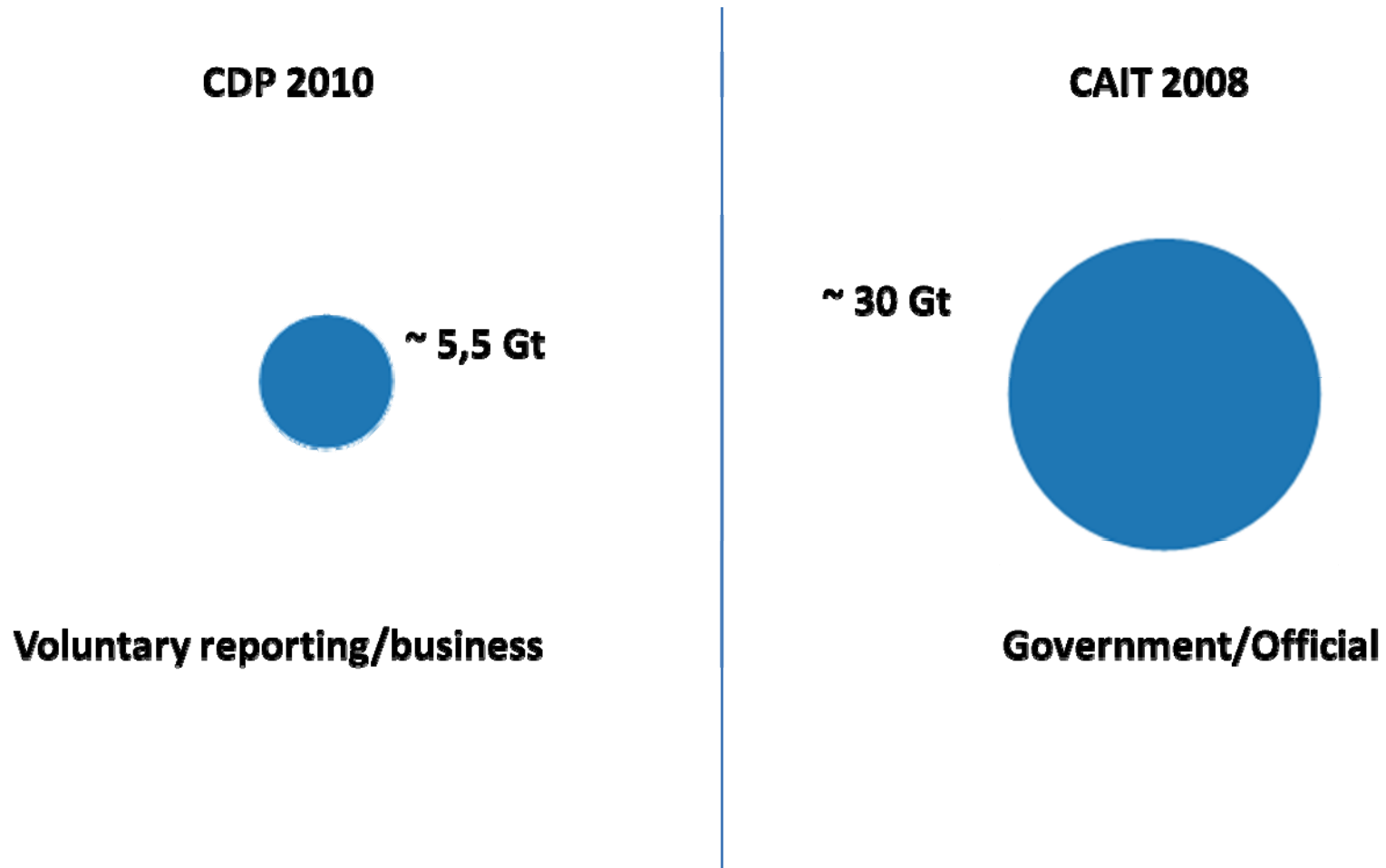
Stage of development	Number of projects	Total estimated annual CO2e savings (only for rows marked *)
Under investigation	0	0
To be implemented*	1	215000
Implementation commenced*	7	2000000
Implemented*	2	10000
Not to be implemented	0	0

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Low carbon energy installation	Transition Con Edison Development into a renewable power generation company: • Scope 1 • Voluntary • 2005-2020 • planning and implementation stage • Additional Details: Con Edison Development sold all fossil generation assets in 2008, and will develop 100 MW of renewable resources by 2015 (primarily solar) throughout the northeast; anticipated to generate more than 117,000 MWHs of electricity annually. Tax incentives and renewable energy credits are expected to make the projects profitable within an acceptable period of time.	75000			>3 years

Emissions reductions



What are the worlds emissions



Country emissions – traditional view



Country emissions – CDP view

Geographical spread of emissions of UK based companies (2010)



90% of reported emissions (by country breakdown) of UK business are abroad
Only 10% of UK business are in UK ~ 4% of UK national emissions

The role of XBRL

VISIONS FOR THE FUTURE

Role of XBRL

Your views on the subject!

- Data quality
- Connectivity
- Business Intelligence

The taxonomy – special requirements

THANK YOU!

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