

2014 Climate Change Taxonomy Insight

CDP speaks XBRL in Climate Change

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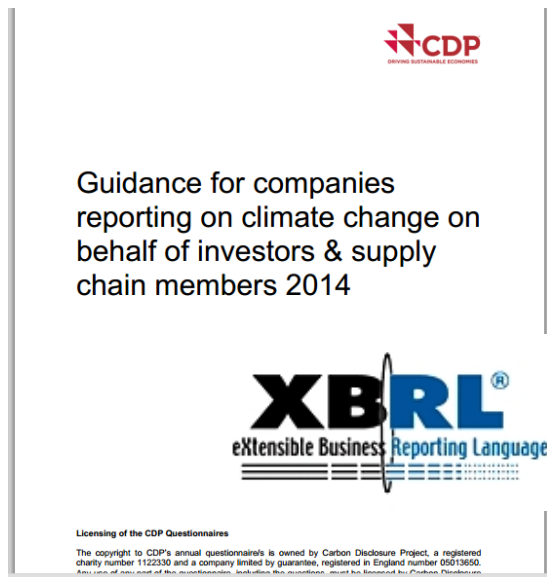
2014 Climate Change Taxonomy Public Consultation

November 24th – December 5th



We need your comments!!!

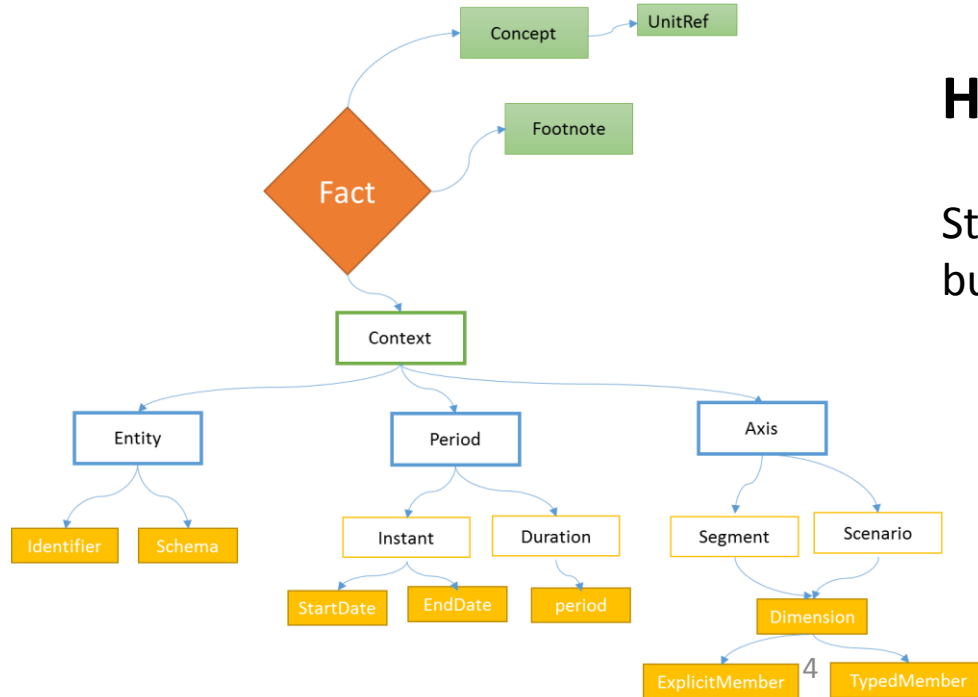
CDP speaks XBRL in Climate Change programme



- ▼ CDP business objectives with XBRL
- ▼ Taxonomy technical aspects

Business objectives (1/3)

▼ Improving data quality and data accessibility



How?

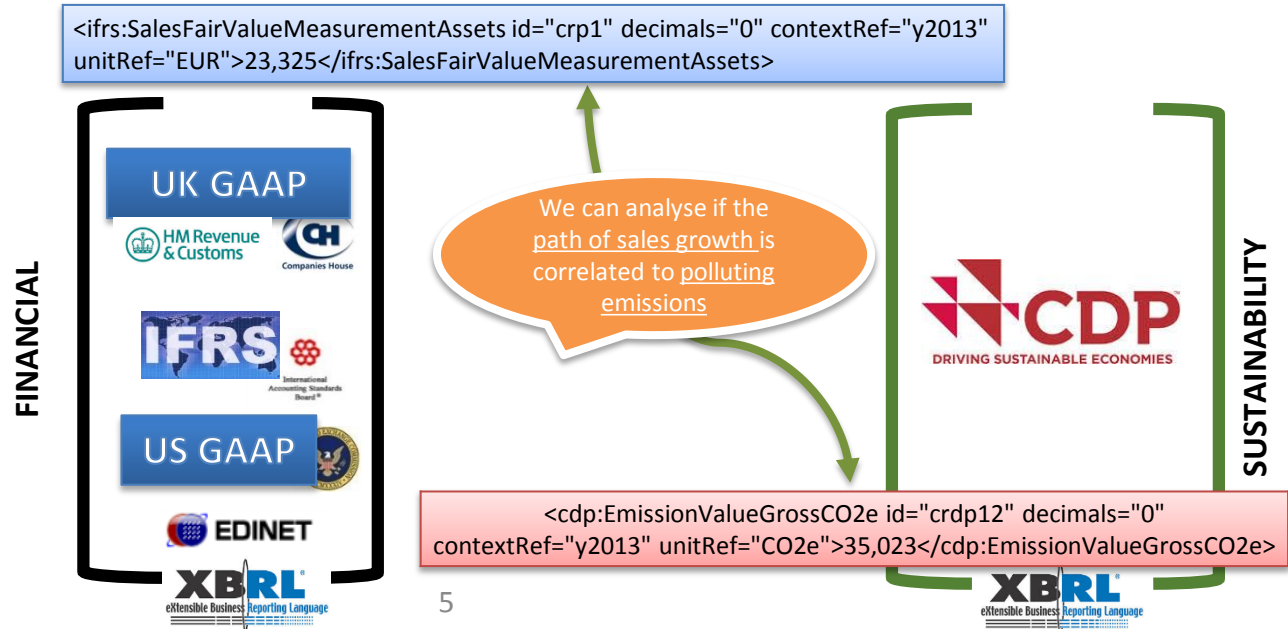
Standardising Climate Change data and business rules in a digital open format.

Business objectives (2/3)

Increasing the significance between Environmental and Financial information models:

How?

XBRL supposes a **first level of harmonisation** of both financial and environmental information models.



Business objectives (3/3)

Improving the consistency of environmental data across other sustainability disclosures frameworks:

How?

Aligning data contexts across other sustainability frameworks which use XBRL



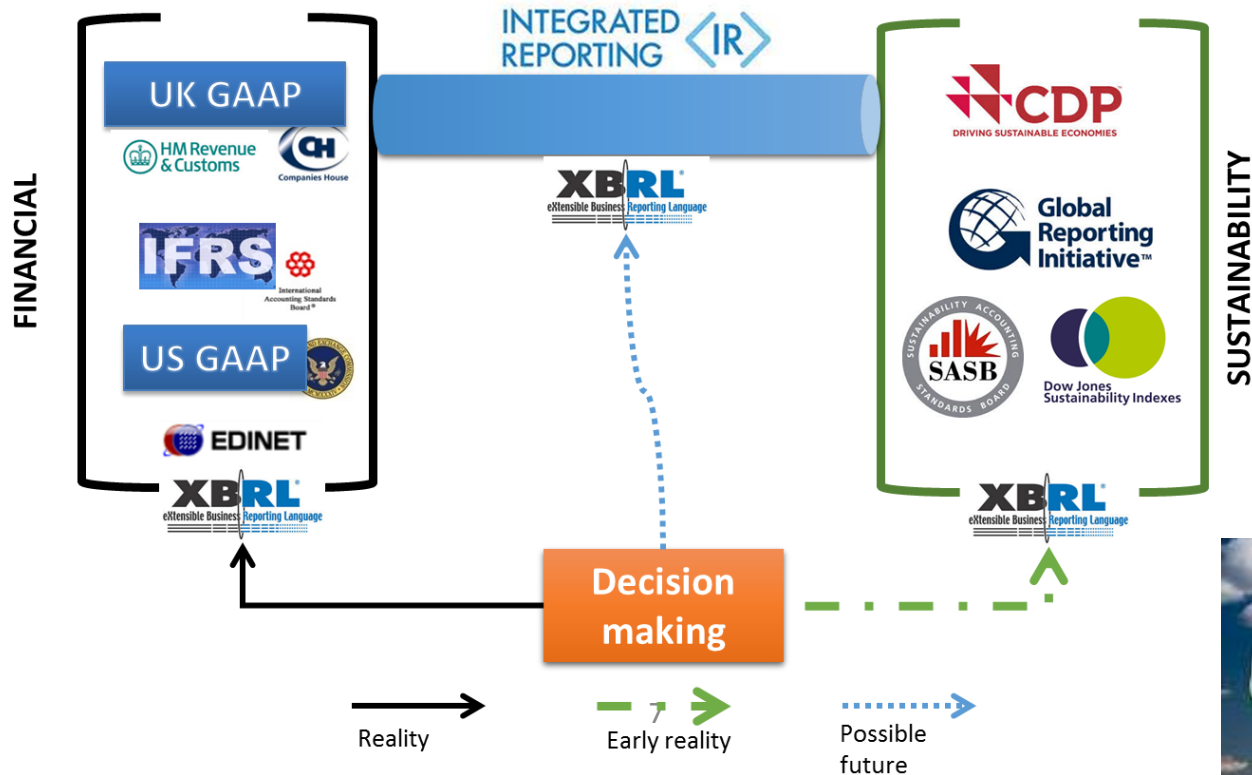
XBRL connectivity capability

GRI	CDP
GENERAL STANDARD DISCLOSURES	
G4-1	CC2.2, CC2.2a, CC3.1, CC3.1d, CC3.1e
G4-2	CC2.1, CC2.1a, CC2.1b, CC2.1c, CC2.2, CC2.2a, CC3.1a, CC3.1b, CC3.1c, CC3.1d, CC3.1e, CC5.1, CC5.1a, CC5.1b, CC5.1c, CC6.1, CC6.1a, CC6.1b, CC6.1c
G4-15, G4-16	CC2.3b, CC2.3c, CC2.3d, CC2.3e
G4-20	CC8.4, CC8.4a
G4-32-b, G4-32-c, G4-33-a, G4-33-b	CC8.6, CC8.6a, CC8.6b, CC8.7, CC8.7a, CC8.8, CC14.2, CC14.2a
G4-34	CC1.1, CC1.1a
G4-36	CC1.1a
G4-45, G4-46, G4-47	CC2.1, CC2.1a, CC2.1b, CC2.1c
G4-51-b	CC1.2, CC1.2a
SPECIFIC STANDARD DISCLOSURES	
CATEGORY: ECONOMIC	
ASPECT: ECONOMIC PERFORMANCE	
INDICATORS	
G4-EC2	CC5.1, CC5.1a, CC5.1b, CC5.1c, CC6.1, CC6.1a, CC6.1b, CC6.1c

Linking up GRI and CDP document (CDP, 2014)

Future: Information ecosystem in XBRL

▼ Environmental reporting as part of others information systems



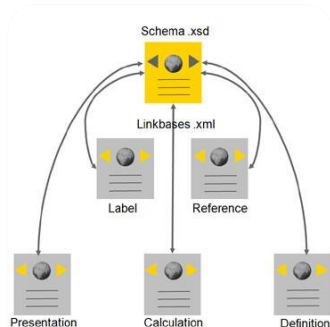
CDP speaks XBRL in Climate Change programme



Let's talk about technical bits....

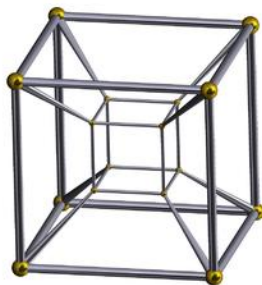
Technical specifications

2003



XBRL 2.1

2005



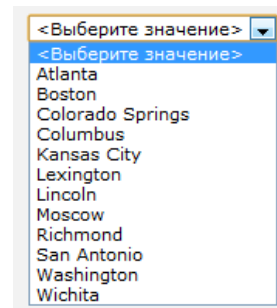
Dimensions 1.0
Specification

2009



Formula 1.0
Specification

2014



Extensible
Enumerations 1.0

Physical architecture

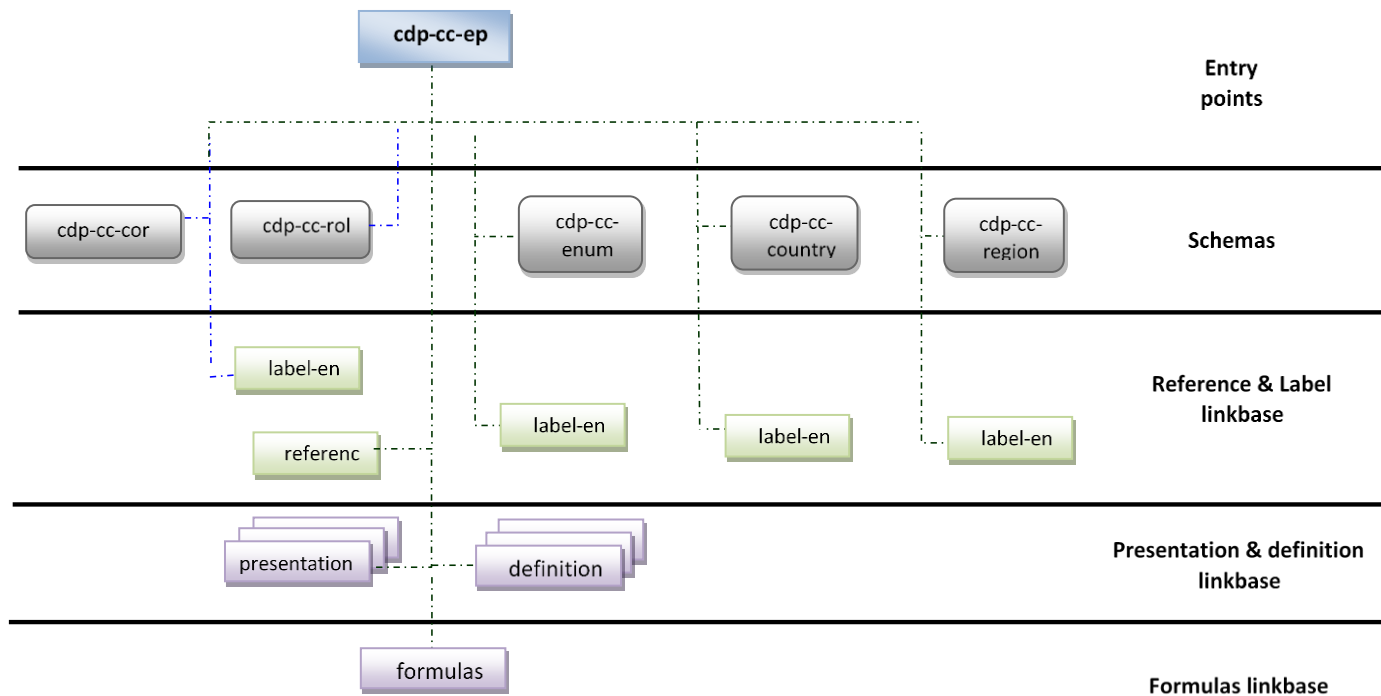


Figure 1 - Climate Change Taxonomy physical architecture

Modelling: different approach for multidimensional structures

3.3b Disclosure of emission reduction initiatives in reporting period

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes Co2e)	Annual monetary savings	Investment required	Payback period	Estimated lifetime of the initiative years
Energy efficiency: Processes	The project resulted in electricity saving of 670.000 KWh per year and natural gas saving.	651	70,000	270,000	More than 3 years	25-30 years
Energy efficiency: Building services	A project to upgrade warehouse lighting. This programme of activity involved replacing@ 1255 T-8 strip light with no control.	365	80,000	236,000	1 to 3 years	8-10 years

14 data points

Explicit dimension in 2012

Previous taxonomy: 2012 Climate Change Taxonomy modelling

Primary
Items

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Energy efficiency: Processes	The project resulted in electricity saving of 670.000 KWh per year and natural gas saving.	651	70,000	270,000	More than 3 years	25-30 years	

Explicit
dimension

Types of emissions reduction activity

Behavioural change
Energy efficiency, building services
Energy efficiency, processes
Fugitive emissions reductions
Low carbon energy installation
Low carbon energy purchase
.....

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Explicit
dimension

Payback periods

Less than one year
1 to 3 years
More than 3 years

Typed dimension + Enumerations in 2014

2014 Climate Change Taxonomy modelling

Primary
Items

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes Co2e)	Annual monetary savings	Investment required	Payback periods	Estimated lifetime of the initiative years	
Energy efficiency: processes	The project resulted in electricity saving of 670.000 KWh per year and natural gas saving.	651	70,000	270,000	More than 3 years	25-30 years	

Typed
dimension

EnumerationItemType

Types of emissions reduction activity

Behavioural change

Energy efficiency, building services

Energy efficiency, processes

Fugitive emissions reductions

Low carbon energy installation

Low carbon energy purchase

.....

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EnumerationItemType

Payback periods

Less than one year

1 to 3 years

More than 3 years

Typed dimension + Enumerations in 2014

```
<?xml version="1.0" encoding="UTF-8"?>
<xbrli:xbrl xmlns:ep="http://www.cdp.net/xbrl/cdp/2014-03-31/ep" xmlns:xbrldi="http://xbrl.org/2006/xbrldi" xmlns:ssf="http://xbrl.org/2003/ssf"
  <link:schemaRef xlink:type="simple" xlink:href="cdp-ep-2014-03-31.xsd"/>
  <xbrli:context id="ctx01_Duration_ID01">
  <xbrli:context id="ctx01_Duration_ID02">
    <xbrli:entity>
    <xbrli:period>
  </xbrli:context>
  <xbrli:unit id="EUR">
    <xbrli:measure>iso4217:EUR</xbrli:measure>
  </xbrli:unit>
  <cdp:TypeEmissionReductionActivityEnumeration contextRef="ctx01_Duration_ID01">cdp-enum:EnergyEfficiencyProcesses</cdp:TypeEmissionReductionActivityEnumeration>
  <cdp:TypeEmissionReductionActivityEnumeration contextRef="ctx01_Duration_ID02">cdp-enum:EnergyEfficiencyBuildingServices</cdp:TypeEmissionReductionActivityEnumeration>
  <cdp:DescriptionEmissionReductionActivity contextRef="ctx01_Duration_ID01">The project resulted in electricity saving of 670.000 kWh</cdp:DescriptionEmissionReductionActivity>
  <cdp:DescriptionEmissionReductionActivity contextRef="ctx01_Duration_ID02">A project to upgrade warehouse lighting. This programme</cdp:DescriptionEmissionReductionActivity>
  <cdp:AnnualEmissionSavingTotalEstimated decimals="0" contextRef="ctx01_Duration_ID01" unitRef="EUR">651</cdp:AnnualEmissionSavingTotalEstimated>
  <cdp:AnnualEmissionSavingTotalEstimated decimals="0" contextRef="ctx01_Duration_ID02" unitRef="EUR">365</cdp:AnnualEmissionSavingTotalEstimated>
  <cdp:AnnualMonetarySavings decimals="0" contextRef="ctx01_Duration_ID01" unitRef="EUR">70000</cdp:AnnualMonetarySavings>
  <cdp:AnnualMonetarySavings decimals="0" contextRef="ctx01_Duration_ID02" unitRef="EUR">80000</cdp:AnnualMonetarySavings>
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  <cdp:InvestmentRequired decimals="0" contextRef="ctx01_Duration_ID02" unitRef="EUR">236000</cdp:InvestmentRequired>
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  <cdp:PaybackPeriodsEnumertion contextRef="ctx01_Duration_ID02">cdp-enum:btw1to3Years</cdp:PaybackPeriodsEnumertion>
  <cdp:EstimatedLifeEmissionReductionActivity contextRef="ctx01_Duration_ID01">25-30 years</cdp:EstimatedLifeEmissionReductionActivity>
  <cdp:EstimatedLifeEmissionReductionActivity contextRef="ctx01_Duration_ID02">8-10 years</cdp:EstimatedLifeEmissionReductionActivity>
</xbrli:xbrl>
```

Reducing the instance's size

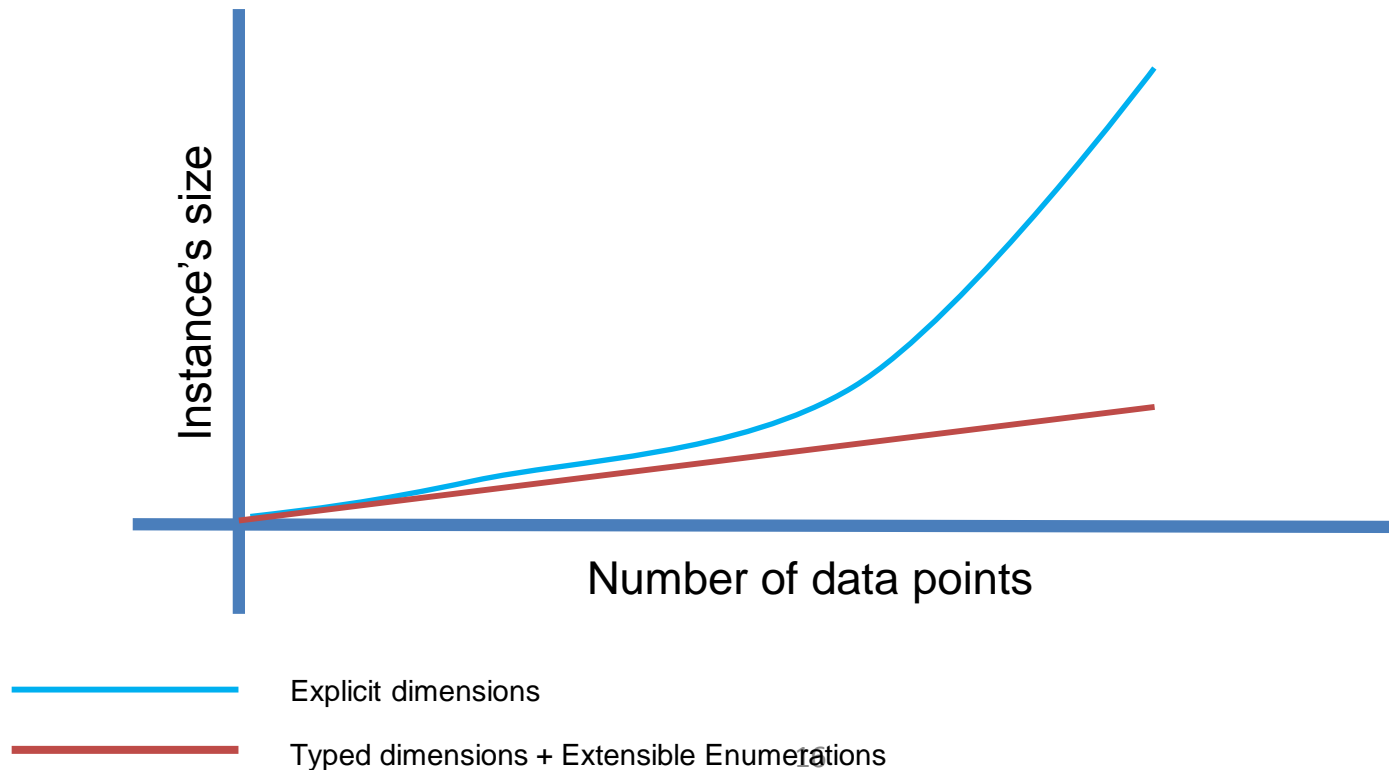
Instances (14 data points)	2012 Taxonomy Explicit dimensions	2014 Taxonomy Typed dimension + Enumerations
Number of contexts	18	2
Primary concepts	10	14
Code lines	271	62
Instance's size	103,2 kb	14,2 Kb

626,76%

With explicit dimensions, the number of contexts grows along with number of data point if we took fully dimensional approach. But extensible enumeration is not.



Reducing the instance's size



Strengths and Weaknesses

Instances	Strengths	Weaknesses
2012 CDP Taxonomy Explicit dimension	Validation rules are implemented.	Instance's sizes (103.2 Kb)
		Data processing performance
2014 CDP Taxonomy Typed dimension + Extensible enumerations	Instance's size (14.2Kb)	Extra validation are required for instance validity
	Good fit with ETL processing	
	Data processing performance	

Things to think about....

- ▼ The use of Extensible enumeration with typed dimensions is compatible with other modelling practices....like DPM.
- ▼ The idea is convert explicit dimension into a list of values with Extensible Enumerations.

Formulas: validation rules

Two types of formulas are defined: **Existence** and **Value Assertion**

Scope 1 emissions = $\sum(\text{Scope 1 emission per region/country})$

if Scope 1 emissions > sum(Scope 1 emission per region/country) . **It is accepted, however a warning message has to be showed. [WARNING] “The breakdown is incomplete”**

If Scope 1 emissions < sum(Scope 1 emission per region/country). **This data can not be accepted. “[MUST] Scope 1 emissions must be equal or greater than the sum of Scope 1 emission breakdown per region/country”**

Disclosure of risk management procedure related to climate change risks and opportunities. – “[MUST] This data must be reported”

Attach external documents

CC7.4 Please give the emissions factors you have applied and their origin

Fuel/Material/Energy	Emission Factor	Unit	Reference



Base64ItemType

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