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Linking Data for Integrated Reporting

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Things I am not going to discuss

- Integrated Reporting idea, IIRC
- Overview of reporting frameworks (IFRS, ESG, GRI…)

Reporting frameworks researched

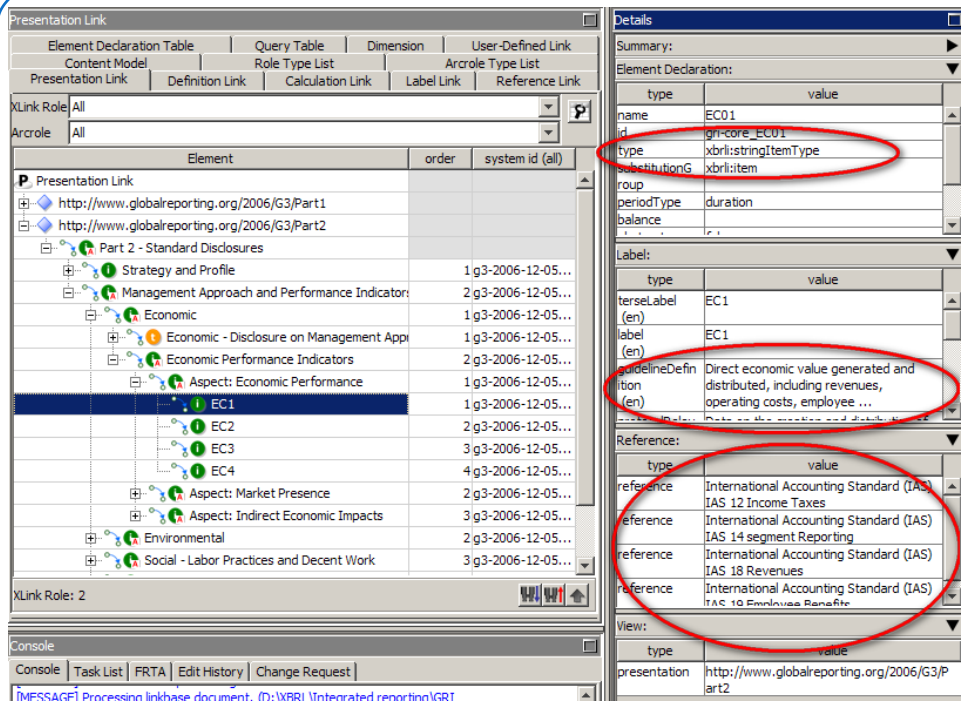
- International Financial Reporting Standards (IFRS)
- Corporate Social Responsibility framework (CSR) – treated as separate
  - GRI Consortium (G3)
  - Prince's Accounting For Sustainability Project (Connected Reporting Framework)
  - Social Accountability International (SA 8000)
  - International Standardization Organization (ISO 26000 & ISO 14000)
  - GoodCorporation
  - United Nations Intergovernmental Working Group of Experts on ISAR etc.
- Sustainability Reporting framework from Global Reporting Initiative (GRI)
- Environmental, Social and Corporate Governance KPI framework (ESG)
- Corporate Governance framework (CG)
  - United Nations' Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR)
  - King Committee on Corporate Governance formed by Institute of Directors in Southern Africa (IoD)
  - European Association of Securities Dealers (EASD)
  - International Corporate Governance Network (ICGN)
  - Open Compliance and Ethics Group (OCEG)

IFRS vs. present GRI taxonomy – Example (1)

Elements:

ifrs_Revenue
ifrs_CostOfSales
ifrs_WagesAndSalaries
…

gri-core_EC01



IFRS vs. present GRI taxonomy – Example (2)

IFRS	GRI
ifrs_RawMaterialsAndConsumablesUsed	gri-core_EN01
Raw materials and consumables used	Materials used by weight or volume.

Relations between concepts in the example are not straightforward. Materials Used are evaluated with formula = unit price x volume and can be qualified as a cost and included into Raw Materials and Consumables Used.

IFRS vs. prospective GRI taxonomy – Example (3)

- example of semantic vicinity between IFRS and GRI concepts

ifrs_Revenue → gri_Revenue

ifrs_CostOfSales → gri_OperatingCosts

ifrs_WagesAndSalaries → gri_EmployeeWagesAndBenefits

But also:

ifrs_DisclosureOfEmployeeBenefitsExplanatory
ifrs_EmployeeBenefitsExpense
…

No arcrole exists that will be used to determine relation between semantically-close concepts but coming from different framework

CSR vs. GRI – Example (1)

Annual Report 2010
ABENGOA

GRI Index

Code	Definition	Indicator type	Chapter		Page	Included in the Report
Emissions, Effluents, and Waste						
EN16	Total direct and indirect greenhouse gas emissions by weight.	P	9	Sustainability, Environment and Climate Change	155	✓
EN17	Other relevant indirect greenhouse gas emissions by weight.	P	9	Sustainability, Environment and Climate Change	155	✓
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	A	9	Sustainability, Environment and Climate Change	156	✓
EN19	Emissions of ozone-depleting substances by weight.	P	9			
EN20	NOx, SOx, and other significant air emissions by type and weight.	P	9			
EN21	Total water discharge by quality and destination.	P	9			
EN22	Total weight of waste by type and disposal method.	P	9			
EN23	Total number and volume of significant spills.	P	9			
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	A	9	Sustainability, Environment and Climate Change	152	✓

precise location of information about of GRI metrics within CSR report

CSR vs. GRI – Example (2)

Emissions

Computation of greenhouse gas (GHG) emissions took into account the **direct emissions** of all sources that are owned by Abengoa (combustion, process, transportation and emission leaks), **indirect emissions** from acquired electrical power, thermal energy and steam and the indirect emissions resulting from work-related travel, work commutes, losses in the distribution and transmission of electrical power and emissions in the value chain of fuels consumed for generating acquired electrical power. Likewise, the emissions involved in biomass combustion or processing are reported separately.

Emissions calculation was made based on the IPCC and GHG Protocol methodologies, using, whenever possible, specific fuel emission factors; and in other cases, national GHG inventory values of the countries in which our activities are carried out, and, as a last resort, generic figures published by the IPCC

part of CSR narrative disclosure

Greenhouse Gas Emissions (t CO_2 equivalents)	2010	2009	2008
Direct Emissions	2,432,644	1,352,951	1,659,422
Direct Emissions from Biomass (1)	1,795,727	1,843,259	1,280,132
Indirect Emissions (2)	593,086	392,363	422,921
Other Indirect Emissions (3)	175, 615	113,244	197,461

GRI facts included in CSR report

Corporate Governance vs. IFRS - Example

EASD CG, Recommendation VIII, 1f

VIII. **Relevant, timely, accurate and understandable disclosure should be made of material information necessary for the proper evaluation of the company's status and situation. Internal controls should provide for the integrity of corporate data. Independent verification and certification of the existence of appropriate controls and the reliability of data, disclosed information in particular, should be obtained to the fullest extent feasible.[9]**

1. Without prejudice to disclosures advocated elsewhere in these recommendations, information on the company should at least cover:

f. related party transactions;

EASD CG, Recommendation IX, 4

4. Transactions with related parties should take place "at arm's length".[14] In any event

a. the parties that have a conflict of interest should abstain from voting;

b. the transaction should, where sufficiently material, be subject to the approval of the board or, as the case may be, by shareholders.

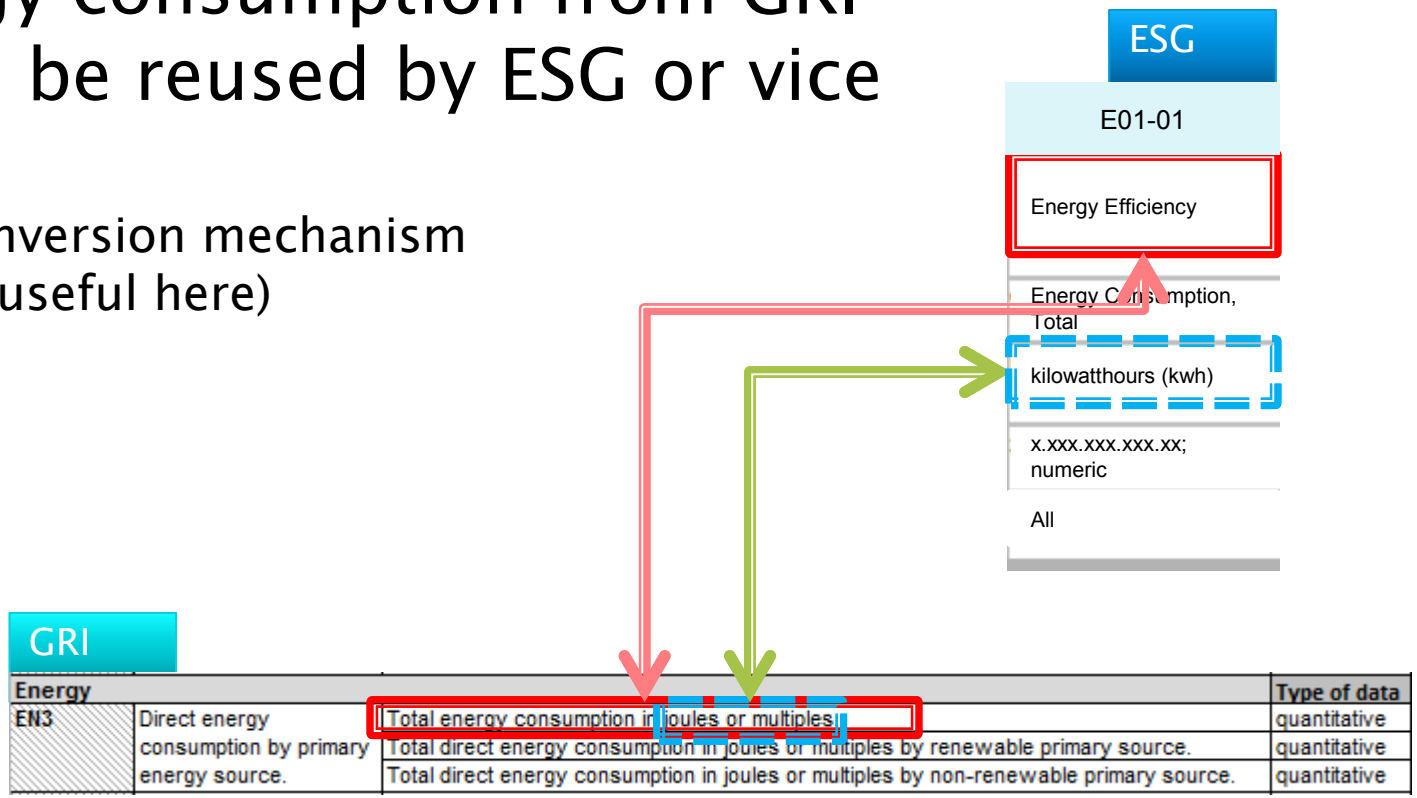
IFRS

[818000] Notes – Related party

Note:
Corporate Governance report may not always have direct references to information disclosed in Note on Related party in IFRS

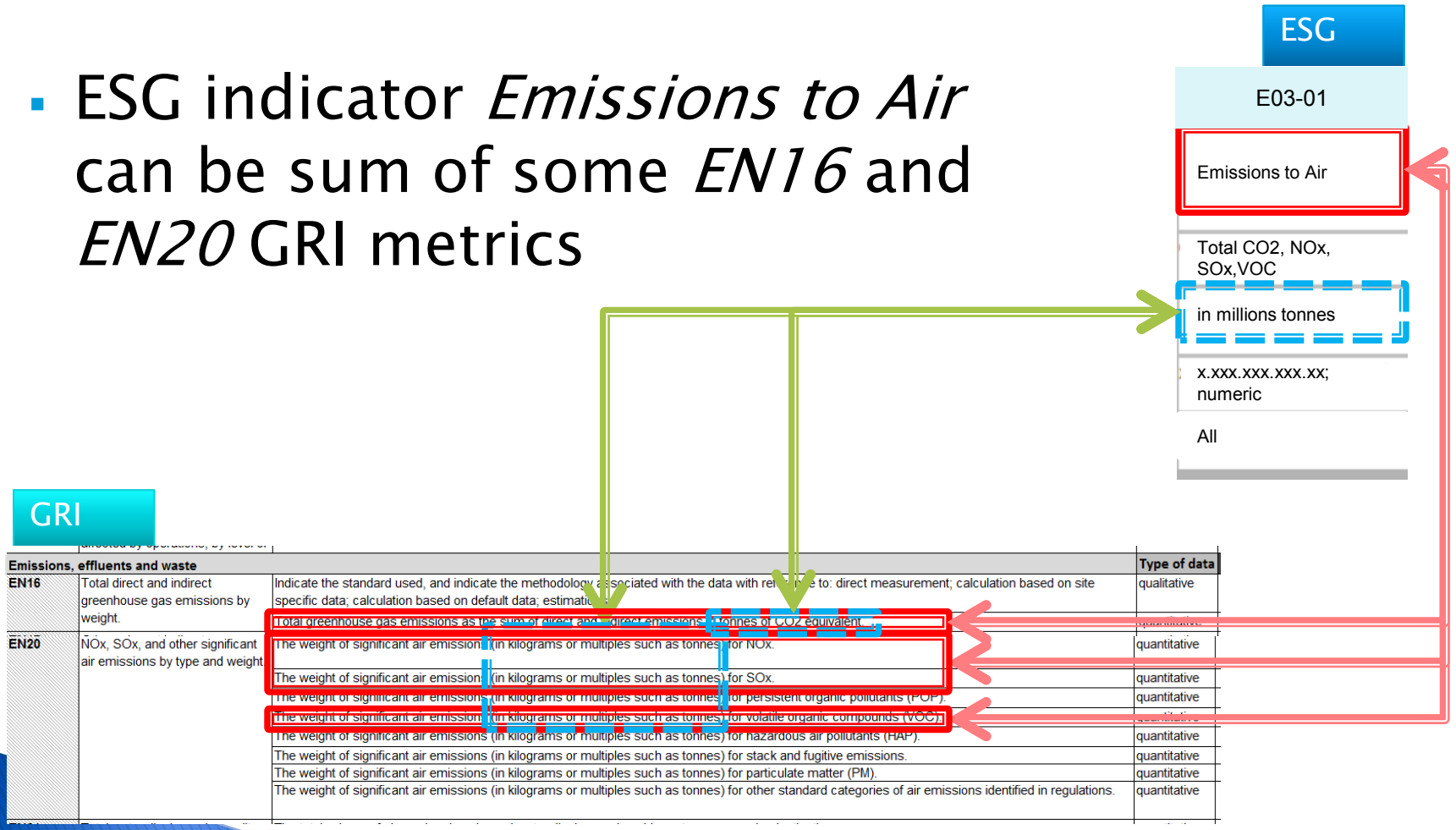
ESG vs. GRI - Example (1)

- energy consumption from GRI could be reused by ESG or vice versa
  (unit conversion mechanism can be useful here)



ESG vs. GRI - Example (2)

- ESG indicator *Emissions to Air* can be sum of some *EN16* and *EN20* GRI metrics



Nature of reporting framework

Reporting Framework Nature	IFRS	GRI	ESG	CG	CSR
	1...		...5...		...10
	Low				High
Principle to Atomic Data	9	9	9	4	3
Hierarchical Structurization Level	9	9	6	4	3
Reporting Concept Rigour	8	8	4	3	2
Definitions Unambiguity	8	8	7	4	2

High scores gives basis to use traditional XBRL taxonomy approach

Low scores suggests that traditional XBRL taxonomy may not be sufficient to represent these ontologies

Notice: These points are granted arbitrally with an attempt to present the gist of frameworks.

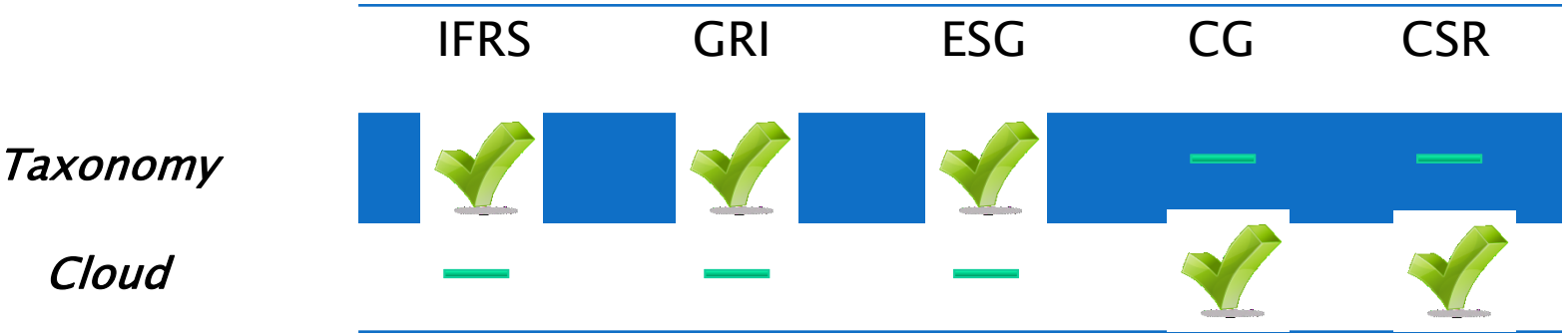
Nature of reported data

	IFRS	GRI	ESG	CG	CSR
Taxonomy					
Reporting Data Nature					
Measures/Metrics	+++	++	+	---	---
Indicators	+	-	+++	---	---
Narrative Disclosures	++	++	+	++	+++

Legend:

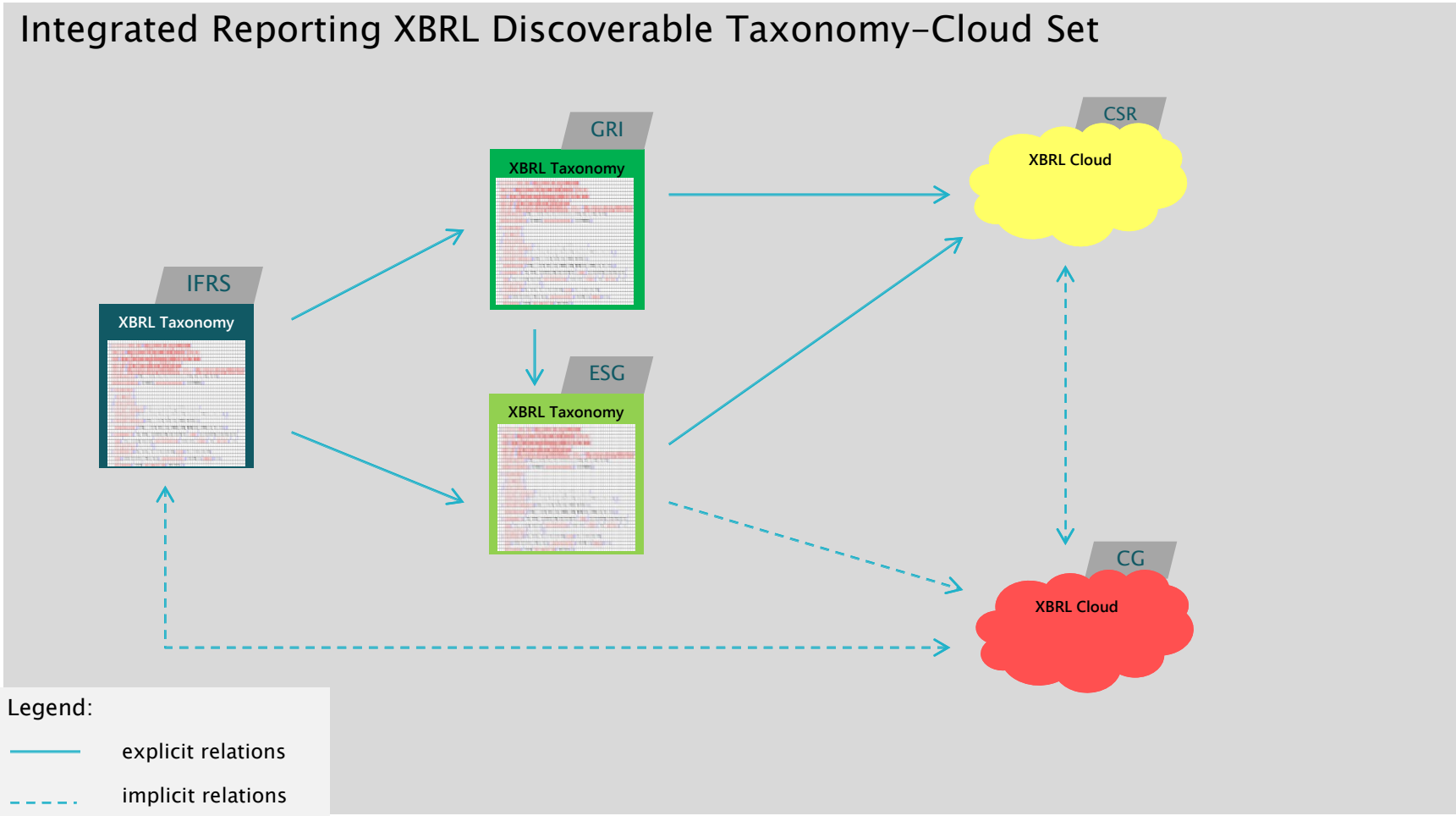
+++	high number	-	possibly occur
++	moderate number	--	can occur (in future)
+	low number	---	does not occur

Taxonomy vs. Cloud



- certain level of structurization for CG and CSR frameworks could be obtained by cloud-based classifications

Map of dependencies of reporting frameworks



The concept of XBRL Cloud

- XBRL Cloud is an ontological model just as XBRL taxonomy
- XBRL Cloud is a less formal classification as compared to XBRL taxonomy
- XBRL Cloud is characterized by:
  - greater pervasiveness of concepts (one concept often belongs to more than one cloud)
  - more implicit relationships between concepts
- XBRL Cloud is suitable for tagging the actual reported information along with ideas behind that information (focus on soft standards)
- XBRL Cloud assumes different kinds of relationships than those provided within current standard linkbases

Technical linking ideas

Types of General Relations

- synonym/exact
- synonym/broad-narrow
- synonym/related
- hyponym/is-instance

This part is inspired by Gene Ontology.

They can be used to structure soft standards but also to provide first level of linkings between XBRL elements coming from:

- XBRL taxonomy and XBRL cloud
- XBRL cloud and XBRL cloud

Types of Special Relations

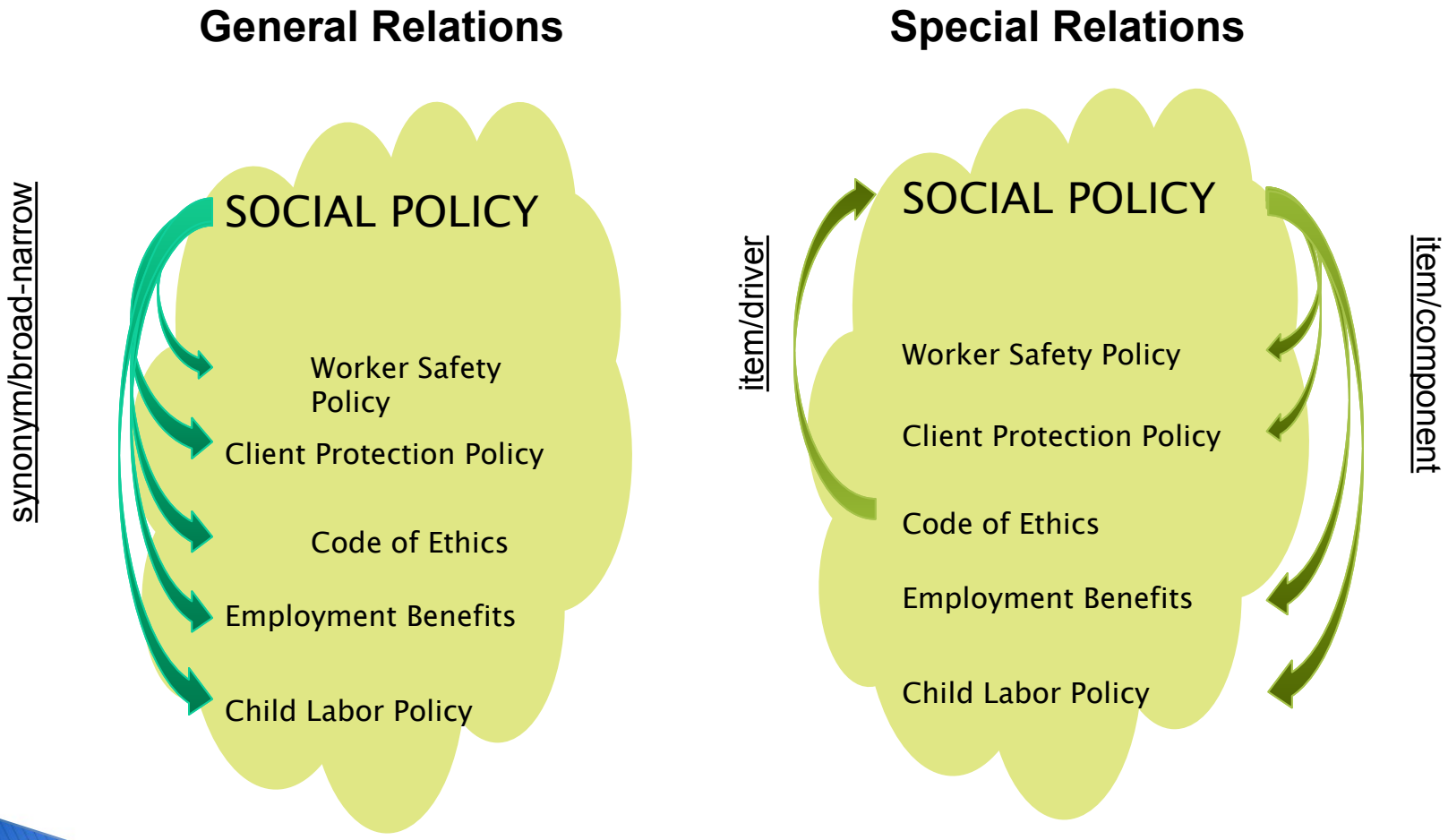
- disclosure/instruction
- disclosure/guideline
- disclosure/explanation
- disclosure/interpretation
- disclosure/narration
- disclosure/supplement
- item/component
- item/driver
- item/cause-effect

They can be used to provide first or second level of linkings (if possible) between XBRL elements coming from:

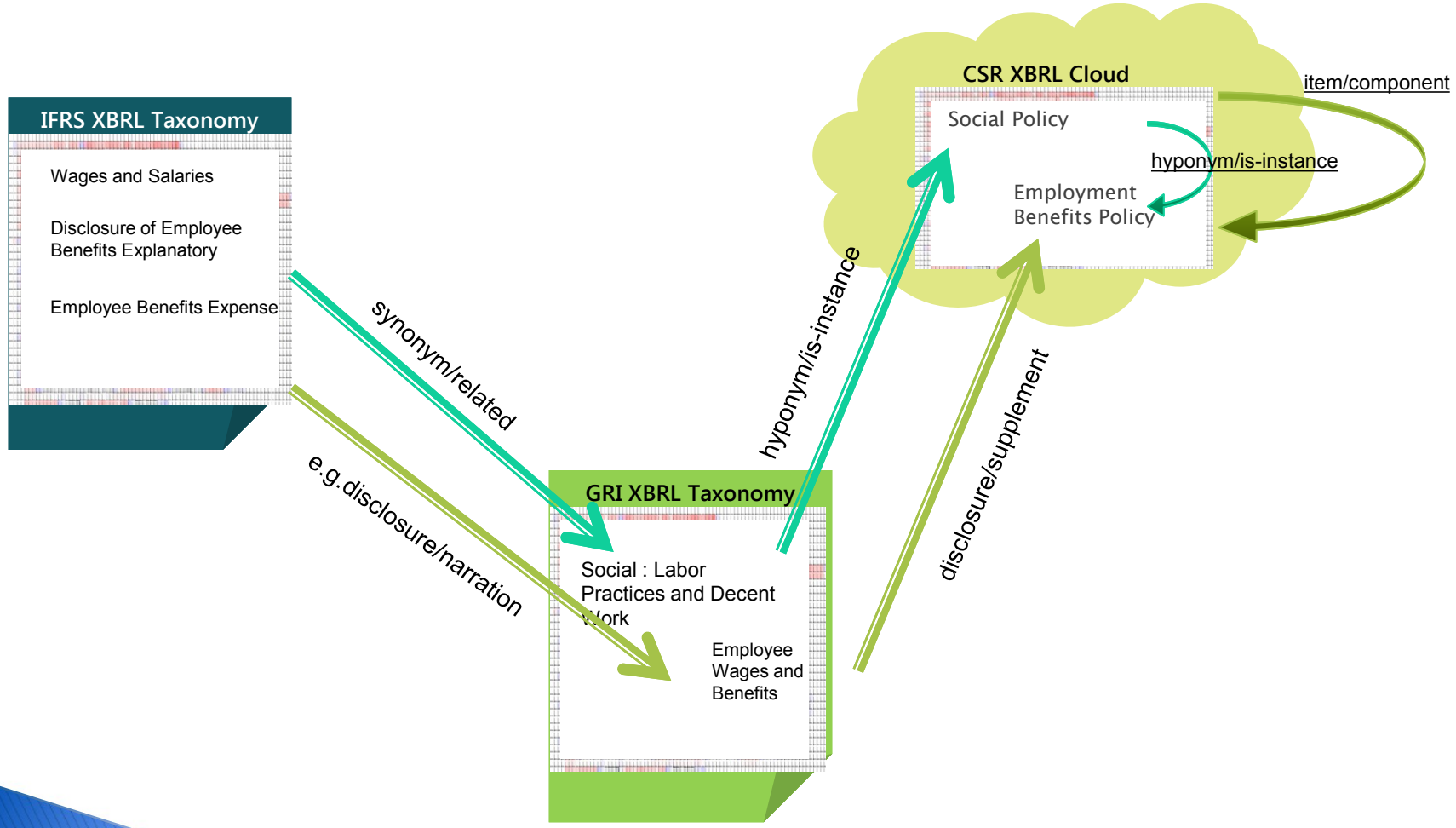
- two different XBRL taxonomies
- XBRL taxonomy and XBRL cloud
- XBRL cloud and XBRL cloud

Names of arcroles presented above should be treated only as examples.

CSR cloud intra-framework linkings



Inter- and intra-framework links



Levels of linking

- XBRL IR Framework should allow for linking between various types of XBRL elements and Extended Link Roles* in intra- and inter-framework perspective (no matter it is an XBRL taxonomy or XBRL cloud)
- XBRL IR Framework should be supported by a mechanism that enables linking transitions (inheritance)

List of possible levels of linkings:

- reportable element – ELR
- ELR – reportable element
- abstract element – ELR
- ELR – abstract element
- abstract element – reportable element
- reportable element – abstract element
- reportable element – reportable element
- abstract element – abstract element
- ELR – ELR

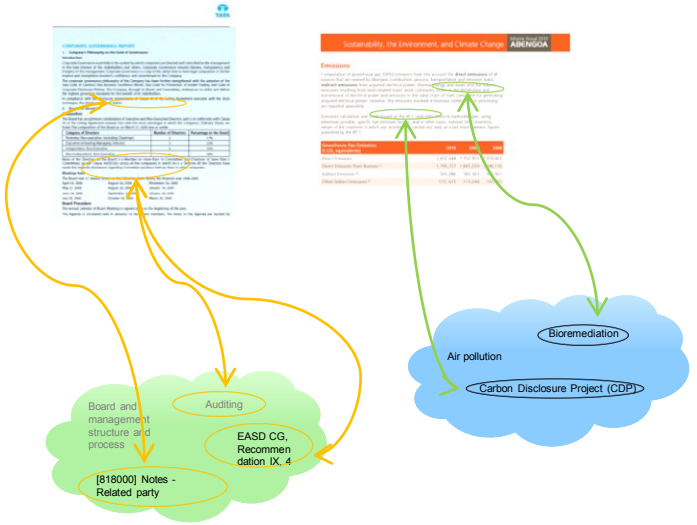
***Extended Link Role -** set of **relations** representing particular piece of a report (e.g. statement or disclosure note) „named" by a **role**

Approaches for further research

1° Metadata-to-Metadata

- suitable for well-structured and clearly defined frameworks

2° Data-to-Metadata



- suitable for frameworks that are not well-structured and are represented by XBRL cloud
- reported data/information can be tagged using concepts from clouds

Questions?

Business Reporting – Advisory Group
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