2013

# The IFRS Taxonomy 2013 Guide

**IFRS**™

**International Financial Reporting Standards (IFRSs®)**

# The IFRS® Taxonomy 2013 Guide

This International Financial Reporting Standards (IFRS) Taxonomy 2013 Guide has been prepared by the IFRS Foundation, 30 Cannon Street, London EC4M 6XH, United Kingdom.

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## Preface

*The IFRS Taxonomy Guide* has been prepared as a technical, supporting guide for users of the IFRS Taxonomy, and this 2013 version supersedes *The IFRS Taxonomy Guide* released in 2012. The guide addresses both the financial reporting content and the XBRL framework of the IFRS Taxonomy. It is intended for use by those who are already familiar with – and who are able to apply – XBRL with IFRSs using the IFRS Taxonomy. Readers who are not familiar with the fundamentals of XBRL should refer to the appendices provided at the end of this guide, which include an XBRL Fundamentals section and also a glossary of commonly used XBRL terminology.

The IFRS Foundation, together with other members of the ITA (Interoperable Taxonomy Architecture) project, has published The GFM (Global Filing Manual) which contains a set of rules which provide guidance on the preparation, filing and validation of XBRL (eXtensible Business Reporting Language) filings. Preparers should follow the guidelines in The GFM unless the receiving institution that they are filing to prescribes additional or amended filing rules.[*]

This guide is software neutral and does not require the use of any specific tools.

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[*] *The Global Filing Manual* and information about the Interoperable Taxonomy Architecture project is available on the IFRS website at *http://www.ifrs.org/XBRL/Resources/Global+filing+manual.htm*

# 1 Introduction

## 1.1 The IFRS Taxonomy 2013

The IFRS (International Financial Reporting Standards) Taxonomy 2013 was published by the IFRS Foundation on 28 March 2013[*]. The IFRS Taxonomy is the XBRL representation of the IFRSs, including International Accounting Standards (IASs), Interpretations and the IFRS for SMEs (Small and Medium-sized Entities), as issued by the IASB (International Accounting Standards Board). Like the IFRS Bound Volume[†], the IFRS Taxonomy is released once a year to incorporate new IFRSs, improvements to existing IFRSs, additional common-practice concepts and changes in XBRL technology.

The IFRS Taxonomy 2013 is consistent with IFRSs as issued by the IASB at 1 January 2013 and the IFRS for SMEs issued on 9 July 2009. The IFRS Taxonomy 2013 also consolidates all IFRS Taxonomy interim releases that were published in 2012[‡] for use by early-adopters wishing to report new IFRSs and improvements to IFRSs issued by the IASB (after the release of the IFRS Taxonomy 2012 on 29 March 2012)[§] in XBRL format. New IFRSs issued by the IASB in 2013 will be published as interim releases for the IFRS Taxonomy 2013. For more information on IFRS Taxonomy interim releases, please refer to section 2.1.3.

## 1.2 Overview of amendments in the IFRS Taxonomy 2013

A number of amendments were implemented in the IFRS Taxonomy 2013, in response to feedback received on the IFRS Taxonomy 2012. The most significant amendments (except for amendments resulting from new or revised IFRSs issued by the IASB during 2012) are detailed below:

### 1.2.1 Further development of common-practice concepts

Following an empirical analysis of approximately 250 IFRS financial statements from the Insurance, Banking, and Extractive Activities sectors, a number of additional concepts reflecting IFRS common reporting practice (approximately 70) were introduced to the IFRS Taxonomy 2013. These included concepts relating to both: primary financial statements and the notes.

### 1.2.2 Improvements to IAS 38 disclosures

Following a detailed analysis of IAS 38 Intangible Assets, tabular structures were introduced to the IFRS Taxonomy 2013 for disclosures required by paragraphs 122a) and 122b) of IAS 38. The tables will enable disclosure of information for each intangible asset "assessed as having an indefinite useful life" and for each individual intangible asset "material to the entity's financial statements", as required by the Standard.

### 1.2.3 Changes to Operating Segments disclosures

Due to a number of practical issues with tagging of disclosures related to IFRS 8 Operating Segments (in particular, paragraphs 23 and 28), the following changes have been made to the IFRS Taxonomy 2013:
-   "Operating segments [axis]" has been deprecated and replaced by "Segment consolidation items [axis]",
-   "Segments [axis]" has been introduced.
The changes will enable tagging of segment amounts before eliminations as well as eliminations in a segment-by-segment breakdown.

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[*] The IFRS Taxonomy 2013 is available from the IFRS website at *www.ifrs.org/XBRL/IFRS-Taxonomy*.

[†] The IFRS Bound Volume is the printed consolidated text of the IASB's authoritative pronouncements and the accompanying documents – illustrative examples, implementation guidance, bases for conclusions and dissenting opinions – as issued by the IASB at the beginning of a calendar year. The IFRS Bound Volume is available from the IFRS e-shop at *http://shop.ifrs.org*.

[‡] Interim releases for the IFRS Taxonomy are available on the IFRS website at *http://www.ifrs.org/XBRL/IFRS-Taxonomy/Pages/Interim-releases.aspx*.

[§] The IFRS Taxonomy 2012 is available on the IFRS website at *http://www.ifrs.org/XBRL/IFRS-Taxonomy/IFRS-Taxonomy-2012*.

## 2    IFRS Taxonomy Architecture

### 2.1    Financial reporting content

From the perspective of financial reporting content, the IFRS Taxonomy contains concepts for all IFRS disclosure requirements, application and implementation guidance, illustrative examples as well as concepts relating to IFRS common reporting practice. This requires the implementation of other IFRS-related information into the Taxonomy, such as IFRS wording (terminology) and XBRL references to corresponding IFRSs.

For more information on the development process followed by the IFRS Foundation when developing the IFRS Taxonomy, please refer to the *Due Process Handbook for XBRL Activities*[*].

#### 2.1.1    Standard-based Approach

The IFRS Taxonomy is developed following a 'Standard-based Approach', which effectively means that the Taxonomy is developed on a standard-by-standard basis (eg IAS 1, IAS 2... IFRS 1, IFRS 2, etc).   IFRS disclosure requirements, guidance and examples in each standard are analysed, modelled into an appropriate hierarchy, and are eventually constructed into XBRL files.   The benefit of following the Standard-based Approach is that it aligns the development of the Taxonomy with the development of IFRSs, according to the IASB's agenda.   Following the Standard-based Approach also results in the Taxonomy being organised and structured in a way that is familiar to preparers, thereby facilitating readability and usability.

The Standard-based Approach is visible in the folder structure of the Taxonomy and in the organisation of the extended link roles (ELRs) contained in the taxonomy.   For example, the linkbases relating to IFRS 1 are found in the folder */ifrs/ifrs_1*.   Each IFRS that is modelled in the Taxonomy is contained in a folder, and the content of each folder is organised according to financial statement components (including the notes).

#### 2.1.2    Release, issue and effective dates

The IFRS Taxonomy release time line is aligned with the IASB's time line for publishing the IFRS Bound Volume, therefore a single version of the Taxonomy is released each year.   Each taxonomy release is identified by a taxonomy release date which appears in the file names of the root folder, the core schema, and the IFRS files.   The release date for the IFRS Taxonomy 2013 is 2013-03-28.

IFRS issue dates are also used in the reference linkbase *issueDate* part. In the IFRS Taxonomy 2013, the issue date for most IFRSs is 2013-01-01.   However there are different issue dates for IFRSs that are not included in the most recent IFRS Bound Volume, for example, references to the IFRS for SMEs have the issue date 2009-07-09.

The IFRS Bound Volume – and therefore the IFRS Taxonomy - permits the 'early application' of some paragraphs within IFRS that have an effective date later than the IFRS Bound Volume release date. Concepts representing disclosure requirements for early adoption are denoted by *Effective YYYY-MM-DD* in the reference linkbase.

#### 2.1.3    Interim releases

Historically, IFRSs published after the publication of the annual Taxonomy were not included in the Taxonomy until the next core taxonomy release in the following year. However beginning in 2010, the IFRS Foundation has started to publish IFRS Taxonomy extensions following the publication of new IFRSs by the IASB, known as IFRS Taxonomy interim releases.

IFRS Taxonomy interim releases contain additional concepts that are not included in – and are therefore supplementary to – the core IFRS Taxonomy.   Interim releases have an architecture that is consistent with the architecture of the core IFRS Taxonomy.

#### 2.1.4    Deprecated elements

Concepts that are no longer required by IFRSs, and which are therefore redundant, are deprecated by the means of deprecated labels, and in the final taxonomy set, a dedicated entry point for all deprecated concepts is provided.

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[*] The IFRS Foundation's *Due Process Handbook for XBRL Activities* is available from the IFRS website at *www.ifrs.org/The-organisation/About-XBRL*.

## 2.2 IFRS modelling in the IFRS Taxonomy

All IFRSs that contain disclosure requirements are modelled in the IFRS Taxonomy. IFRSs are modelled in the IFRS Taxonomy in two ways – via hierarchies and/or via axes (dimensions).

### 2.2.1 Hierarchical modelling

The most common modelling technique used in the IFRS Taxonomy is the hierarchical/list modelling seen in the presentation linkbase, and where axes are used or a calculation is required then also in the definition and calculation linkbases, respectively.

An example of hierarchical modelling is shown in
Illustration 1 (below) in the ELR *[520000] Statement of cash flows, indirect method* and in Illustration 2 (page 12) in the ELR *[825900] Notes - Non-current asset or disposal group held for sale*. Hierarchical modelling is used for most statements and notes in the IFRS Taxonomy.

| Extended link [520000] Statement of cash flows, indirect method |
| --- |
| Statement of cash flows [abstract] |
| Cash flows from (used in) operating activities [abstract] |
| Profit (loss) |
| Adjustments to reconcile profit (loss) [abstract] |
| Adjustments for non-cash income tax expense |
| Adjustments for non-cash finance costs |
| Adjustments for income tax expense |
| Adjustments for finance costs |
| Adjustments for decrease (increase) in inventories |
| Adjustments for decrease (increase) in trade accounts receivable |
| Adjustments for decrease (increase) in other operating receivables |
| Adjustments for increase (decrease) in trade accounts payable |
| Adjustments for increase (decrease) in other operating payables |
| Adjustments for depreciation and amortisation expense |
| Adjustments for impairment loss (reversal of impairment loss) recognised in profit or loss |
| Adjustments for provisions |
| Adjustments for unrealised foreign exchange losses (gains) |
| Adjustments for share-based payments |
| Adjustments for fair value losses (gains) |
| Adjustments for undistributed profits of associates |
| ... |
| Cash flows from (used in) investing activities [abstract] |
| Cash flows from losing control of subsidiaries or other businesses |
| Cash flows used in obtaining control of subsidiaries or other businesses |

Illustration 1. A hierarchical model of a statement

| Extended link [825900] Notes - Non-current asset held for sale and discontinued operations |
| --- |
| Disclosure of non-current assets held for sale and discontinued operations [text block] |
|     Revenue, discontinued operations |
|     Expenses, discontinued operations |
|     Profit (loss) before tax, discontinued operations |
|     Tax expense relating to profit (loss) from ordinary activities of discontinued operations |
|     Gain (loss) recognised on measurement to fair value less costs to sell or on disposal of assets or disposal groups constituting discontinued operation |
|     Tax expense relating to gain (loss) on discontinuance |
|     Cash flows from continuing and discontinued operations [abstract] |
|         Cash flows from (used in) operating activities [abstract] |
|             Net cash flows from (used in) operating activities, continuing operations |
|             Net cash flows from (used in) operating activities, discontinued operations |
|             Net cash flows from (used in) operating activities |
|         Cash flows from (used in) investing activities [abstract] |
|             Net cash flows from (used in) investing activities, continuing operations |
|             Net cash flows from (used in) investing activities, discontinued operations |
|             Net cash flows from (used in) investing activities |
|         Cash flows from (used in) financing activities [abstract] |
|             Net cash flows from (used in) financing activities, continuing operations |
|             Net cash flows from (used in) financing activities, discontinued operations |
|             Net cash flows from (used in) financing activities |
|         Increase (decrease) in cash and cash equivalents, discontinued operations |
|     Income from continuing operations attributable to owners of parent |
|     Income from discontinued operations attributable to owners of parent |
|     Profit (loss) from continuing operations attributable to non-controlling interests |
|     Profit (loss) from discontinued operations attributable to non-controlling interests |
|     Explanation of nature and adjustments to amounts previously presented in discontinued operations |
|     Description of non-current asset or disposal group held for sale which were sold or reclassified |
|     Explanation of facts and circumstances of sale or reclassification and expected disposal, manner and timing |

Illustration 2.    A hierarchical model of a note

### 2.2.2    Axes modelling

The second modelling technique used in the IFRS Taxonomy is modelling via tables (hypercubes) and axes (explicit dimensions). Each such axis can be connected to any set of line items (reportable concepts) via a table, thereby creating a dimensional structure. The IFRS Taxonomy contains two types of axes − *applied* axes, and *for application* axes.   Most axes in the IFRS Taxonomy are *applied* axes because they have relationships to line items (reportable concepts).   Six axes in the IFRS Taxonomy are general *for application* axes because they do not have explicit relationships.

Illustration 3 (on page 13) provides an example model of the *Statement of changes in equity [abstract]* by the means of axes.   Line items (reportable concepts) are denoted with an *X*.   Line items can be reported for various members (domain members) of the axis *Components of equity [axis]*, which are linked by the table *Statement of changes in equity [table]*.   For example, preparers can report the line item *Issue of equity*, for the member *Share premium [member]*, on the axis *Components of equity [axis]*.

| Extended link [610000] Statement of changes in equity | | |
|---|---|---|
| Statement of changes in equity [abstract] | | |
| Statement of changes in equity [table] | table | IAS 1.106 |
| Components of equity [axis] | axis | IAS 1.106 |
| Equity [member] | member [default] | IAS 1.106 |
| Equity attributable to owners of parent [member] | member | IAS 1.106 |
| Issued capital [member] | member | IAS 1.106 |
| Share premium [member] | member | IAS 1.106 |
| Treasury shares [member] | member | IAS 1.106 |
| Other equity interest [member] | member | IAS 1.106 |
| Other reserves [member] | member | IAS 1.106 |
| Revaluation surplus [member] | member | IAS 1.106 |
| Reserve of exchange differences on translation [member] | member | IAS 1.106 |
| Reserve of cash flow hedges [member] | member | IAS 1.106 |
| Reserve of gains and losses on remeasuring available-for-sale financial assets [member] | member | IAS 1.106 |
| Reserve of share-based payments [member] | member | IAS 1.106 |
| … | | |
| Retained earnings [member] | member | IAS 1.106 |
| Non-controlling interests [member] | member | IAS 1.106 |
| … | | |
| Statement of changes in equity [line items] | line items | |
| Equity at beginning of period | X | IAS 1.55, IAS 1.78 e, IFRS 1.24 a |
| Changes in equity [abstract] | | |
| Comprehensive income [abstract] | | |
| Profit (loss) | X | IAS 1.106 d (i), IAS 1.82 f, IFRS 1.24 b, IFRS 8.23, IFRS 8.28 b |
| Other comprehensive income | X | IAS 1.106 d (ii), IAS 1.91 a |
| Total comprehensive income | X | IAS 1.106 a, IAS 1.82 i, IFRS 1.24 b |
| Issue of equity | X | IAS 1.106 d (iii) |
| Dividends recognised as distributions to owners | (X) | IAS 1.107 |
| Increase through other contributions by owners, equity | X | IAS 1.106 d (iii) |
| Decrease through other distributions to owners, equity | (X) | IAS 1.106 d (iii) |
| Increase (decrease) through other changes, equity | X | IAS 1.109 |
| … | | |

Illustration 3.   A dimensional model of a Statement of changes in equity (presentation linkbase view)

Illustration 4 (on page 14) provides an example of the same Statement of changes in equity as shown in Illustration 3 (above), but this time the example is presented in the form of a Cartesian product whereby all possible reportable combinations are presented (the example presents a prepared-extended view of the Statement of changes in equity).

| | Components of equity | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Equity | | | | | | | | |
| | Equity attributable to owners of parent | | | | | | | Non-controlling interests | |
| | Issued capital | Share premium | Treasury shares | Other equity interest | Other reserves | Retained earnings | | Non-controlling interests | |
| Statement of changes in equity | | | | | | | | | |
|   Equity | | | | | | | | | |
|   Changes in equity | | | | | | | | | |
|     Comprehensive income [abstract] | | | | | | | | | |
|       Profit (loss) | | | | | | | | | |
|       Other comprehensive income | | | | | | | | | |
|       Comprehensive income | | | | | | | | | |
|     Issue of equity | | | | | | | | | |
|     Dividends recognised as distributions to owners | | | | | | | | | |
|     Increase through other contributions by owners, equity | | | | | | | | | |
|     Decrease through other distributions to owners, equity | | | | | | | | | |
|     Increase (decrease) through other changes, equity | | | | | | | | | |
|     … | | | | | | | | | |

Illustration 4.   A dimensional model of a Statement of changes in equity (Cartesian product view)

## 2.3 The structure of the IFRS Taxonomy

### 2.3.1 Folder and file structure

Taxonomy structure refers to the general composition of the files and folders within a taxonomy.   In the IFRS Taxonomy, files are placed in a folder structure as shown in Illustration 5 (below).   *dim* denotes a dimension, *gla* denotes a generic label linkbase, and *gre* denotes a generic reference linkbase.
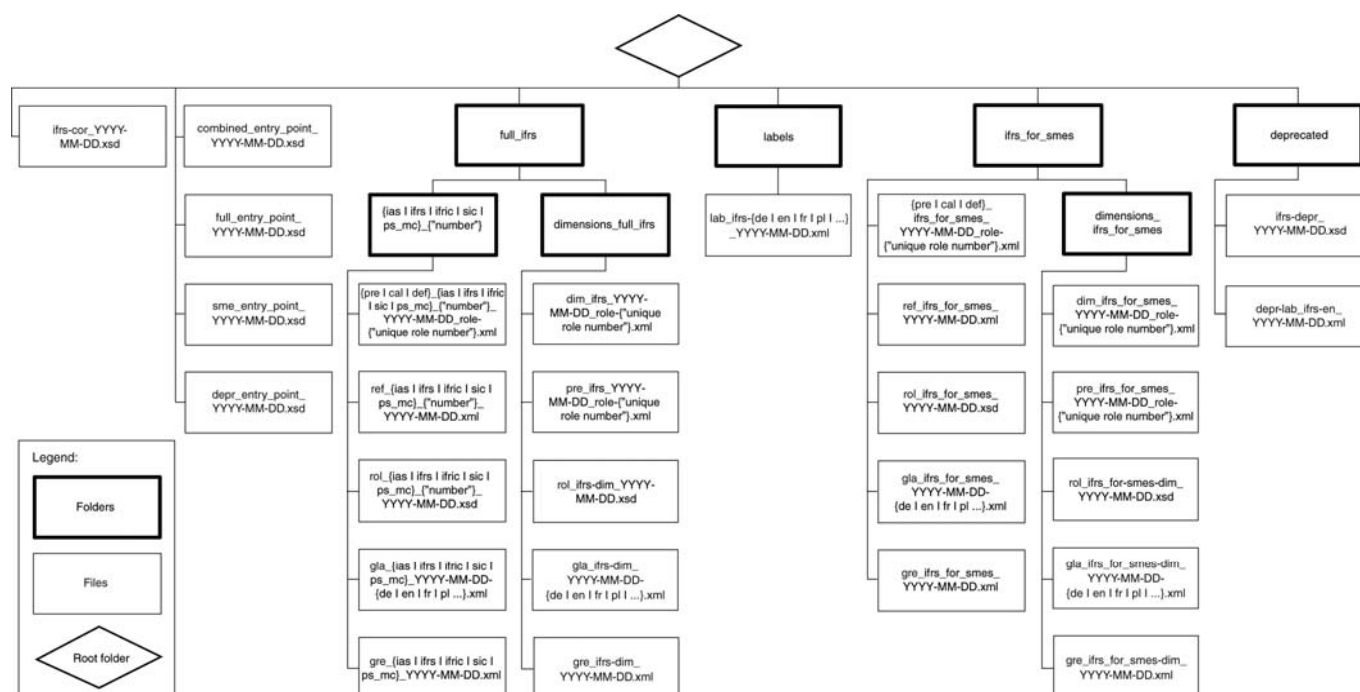


Illustration 5.   The folder structure of a yearly IFRS Taxonomy release

For each taxonomy release, the IFRS Taxonomy release date appears in all taxonomy files.

The folders and their contents, and the guidelines for folder and file names, are as follows (folder names are in bold):

- **YYYY-MM-DD (where YYYY-MM-DD represents the taxonomy release date, and is set to 2013-03-28 for the IFRS Taxonomy 2013 to align the Taxonomy with the IFRS Bound Volume publication time line);** [*]

  o *ifrs-cor_YYYY-MM-DD.xsd* is the core schema which contains reportable concepts for the taxonomy release;

  o *combined_entry_point_YYYY-MM-DD.xsd* is the entry point schema that combines all of the files for IFRSs and the IFRS for SMEs.

  o *full_entry_point_YYYY-MM-DD.xsd* is the entry point schema that provides the files for IFRSs (excluding the IFRS for SMEs).

  o *smes_entry_point_YYYY-MM-DD.xsd* is the entry point schema that provides the files for the IFRS for SMEs only.

  o *depr_entry_point_YYYY-MM-DD.xsd* is the deprecated entry point schema that contains deprecated concepts.

  o **full_ifrs** contains folders for standards, references and dimensions;

    ▪ **{ias | ifrs | ifric | sic | ps_mc}[†] _{"number"}** are folders that contain modular presentation, calculation, definition and reference linkbase files for each standard or interpretation;

      • *{pre | cal | def | dim}_{ias | ifrs | ifric | sic | ps_mc}_{"number"}_YYYY-MM-DD_role-{"unique role number"}.xml* are modular presentation, calculation, definition and reference linkbase files for each standard or interpretation;

      • *ref_{ias | ifrs | ifric | sic | ps_mc}_{"number"}_YYYY-MM-DD.xml* are modular reference linkbase files for each standard or interpretation;

      • *rol_{ias | ifrs | ifric | sic | ps_mc}_{"number"}_YYYY-MM-DD.xsd* are modular schemas that contain ELRs for the presentation, calculation and definition linkbases for each standard or interpretation;

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[*] The ZIP file which contains all IFRS Taxonomy files represents the packed root folder and follows the file name guideline *ifrs_YYYYMMDD.zip*.

[†] *ps_mc* denotes the IFRS Practice statement *Management Commentary*.

- *gla_{ias | ifrs | ifric | sic | ps_mc}_YYYY-MM-DD-{de | fr | pl | ...}.xml* are generic linkbase files that provide labels for ELRs.

- *gre_{ias | ifrs | ifric | sic | ps_mc}_YYYY-MM-DD.xml* are generic linkbase files that provide references for ELRs.

- ▪ ***dimensions_full_ifrs* is the folder which contains definition linkbases that have dimensional relationships that are applicable to any sets of line items;'\***
  - *dim_ifrs_YYYY-MM-DD_role-{"unique role number"}.xml* are definition linkbase files that have dimensional relationships;

  - *pre_ifrs_YYYY-MM-DD_role-{"unique role number"}.xml* are presentation linkbase files that have presentation relationships that reflect the dimensional relationships;

  - *rol_ifrs-dim_YYYY-MM-DD.xsd* is a schema which contains ELRs for dimensional definition linkbases;

  - *gla_ifrs-dim_YYYY-MM-DD-{de | fr | pl | ...}.xml* are generic linkbase files that provide labels for ELRs.

  - *gre_ifrs-dim_YYYY-MM-DD.xml* are generic linkbase files that provide references for ELRs.

- o *labels* is the folder which contains label linkbases;[†]

  - ▪ *lab_ifrs-en_YYYY-MM-DD.xml* is the main English language label linkbase file;

  - ▪ *lab_ifrs-{de | fr | pl | ...}_YYYY-MM-DD.xml* are the label linkbase files for languages other than English;

- o ***ifrs_for_smes* is the folder which contains the modular presentation, calculation, definition and reference linkbase files for the IFRS for SMEs;**

  - ▪ *{pre | cal | def | dim}_ifrs_for_smes_YYYY-MM-DD_role-{"unique role number"}.xml* are the modular presentation, calculation, definition and reference linkbase files for the IFRS for SMEs;

  - ▪ *ref_ifrs_for_smes_YYYY-MM-DD.xml* are the modular reference linkbase files the IFRS for SMEs;

  - ▪ *rol_ifrs_for_smes_YYYY-MM-DD.xsd* is the schema which contains the ELRs for the presentation, calculation and definition linkbases of the IFRS for SMEs;

  - ▪ *gla_ifrs_for_smes_YYYY-MM-DD-{de | fr | pl | ...}.xml* are generic linkbase files that provide labels for ELRs.

  - ▪ *gre_ifrs_for_smes_YYYY-MM-DD.xml* is the generic linkbase file that provides references for ELRs.

  - ▪ ***dimensions_ifrs_for_smes* is the folder which contains the IFRS for SMEs definition linkbases that have dimensional relationships and that are applicable to any set of line items;**
    - *dim_ifrs_for_smes_YYYY-MM-DD_role-{"unique role number"}.xml* are the definition linkbase files that have dimensional relationships;

    - *pre_ifrs_for_smes_YYYY-MM-DD_role-{"unique role number"}.xml* are the presentation linkbase files that have presentation relationships that reflect the dimensional relationships;

    - *rol_ifrs_for_smes-dim_YYYY-MM-DD.xsd* is a schema which contains ELRs for dimensional definition linkbases;

    - *gla_ifrs_for_smes-dim_YYYY-MM-DD-{de | fr | pl | ...}.xml* are generic linkbase files that provid labels for ELRs.

    - *gre_ifrs_for_smes-dim_YYYY-MM-DD.xml* is a generic linkbase file that provides references for ELRs.

- o *deprecated* is the folder which contains the deprecated schema and deprecated labels.

  - ▪ *ifrs-depr_YYYY-MM-DD.xsd* is the schema which contains deprecated concepts.

  - ▪ *depr-lab_ifrs-en_YYYY-MM-DD.xml* is the file that contains deprecated label linkbases.

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[*] Axes (dimensions) that are applicable to specific sets of line items and the definition linkbases that are specific to these line items are placed in the standard folders.

[†] The contents of the label folder may change after a taxonomy release, because of the subsequent release of label linkbases in languages other than English.

### 2.3.2 Absolute and relative paths

The unique root resource location (URL) of the IFRS Taxonomy 2013 is *http://xbrl.ifrs.org/taxonomy/2013-03-28/*, followed by the file path which is formed according to the file and folder structure set out in section 2.3.1. Table 1 (below) provides examples of absolute paths to IFRS Taxonomy 2013 files.

Table 1. Examples of IFRS Taxonomy file absolute paths

| File | Absolute path |
|------|---------------|
| Core schema | http://xbrl.ifrs.org/taxonomy/2013-03-28/ifrs-cor_2013-03-28.xsd |
| English label linkbase | http://xbrl.ifrs.org/taxonomy/2013-03-28/labels/lab_ifrs-en_2013-03-28.xml |
| IAS 1 presentation linkbase | http://xbrl.ifrs.org/taxonomy/2013-03-28/ifrs/ias_1/pre_ias_1_2013-03-28_role-210 000.xml |
| IFRS for SMEs Taxonomy calculation linkbase | http://xbrl.ifrs.org/taxonomy/2013-03-28/ifrs_for_smes/cal_ifrs_for_smes_role-610 000.xml |
| IAS 36 reference linkbase | http://xbrl.ifrs.org/taxonomy/2013-03-28/ifrs/ias_36/ref_ias_36_2013-03-28.xml |
| Role schema for IFRS 8 | http://xbrl.ifrs.org/taxonomy/2013-03-28/ifrs/ifrs_8/rol_ifrs_8_2013-03-28.xsd |

IFRS Taxonomy files can be referenced using both absolute and relative paths. Software vendors should note that IFRS Taxonomy files should not be amended and should therefore be referenced via absolute paths in order to avoid file changes being made by preparers and extenders. This is particularly important when working directly on the entry point schemas without importing them to another extension schema. In such cases, all linkbase amendments should be treated as an extension and saved in new, separate linkbase files.

### 2.3.3 DTS discovery

The IFRS Taxonomy is modularised as described in section 2.3.1. The DTS discovery process requires an entry point (either a schema or an instance document). According to the XBRL 2.1 Specification discovery rules (section 3.2 of the XBRL 2.1 Specification) the discovery process should be conducted by the means of a *linkbaseRef* (the relevant core and role schemas will be discovered via locators or a *roleRef*). An example entry point schema is presented in Illustration 6 (below) and an example entry point instance document is presented in Illustration 7 (on page 18).

In the first example, the core and roles schemas are discovered via locators in *ref_ias_1_2013-03-28.xml*, *pre_ias_1_2013-03-28_role-210000.xml* and *dim_ifrs_2013-03-28_role-903000.xml*. All three linkbases contain *roleRefs* to discover appropriate role schemas.

```
<annotation>

        <appinfo>

                <link:linkbaseRef xlink:href="ifrs/ias_1/ref_ias_1_2013-03-28.xml" xlink:title="Reference Link, References
                for IAS 1" xlink:type="simple" xlink:role="http://www.xbrl.org/2003/role/referenceLinkbaseRef"
                xlink:arcrole="http://www.w3.org/1999/xlink/properties/linkbase"/>

                <link:linkbaseRef xlink:href="ifrs/ias_1/pre_ias_1_2013-03-28_role-210000.xml" xlink:title="Presentation
                Link, Statement of financial position, current/non-current classification" xlink:type="simple"
                xlink:role="http://www.xbrl.org/2003/role/presentationLinkbaseRef"
                xlink:arcrole="http://www.w3.org/1999/xlink/properties/linkbase"/>

                <link:linkbaseRef xlink:href="ifrs/dimensions/dim_ifrs_2013-03-28_role-903000.xml" xlink:title="Definition
                Link, Dimension - Continuing and discontinued operations " xlink:type="simple"
                xlink:role="http://www.xbrl.org/2003/role/definitionLinkbaseRef"
                xlink:arcrole="http://www.w3.org/1999/xlink/properties/linkbase"/>

        </appinfo>

</annotation>
```

Illustration 6. An excerpt from an entry point schema

In the second example, the instance document contains a *linkbaseRef* for *pre_ias_1_2013-03-28_role-210000.xml* and *dim_ifrs_2013-03-28_role-903000.xml* which leads to the discovery of the respective schemas. Software products should clearly differentiate between IFRS Taxonomy concepts, relationships and ELRs, and entity-specific concepts, relationships and ELRs. This is particularly important when visualising taxonomies.

```
<?xml version="1.0" encoding="UTF-8"?>

    <xbrl xsi:schemaLocation="http://xbrl.ifrs.org/taxonomy/2013-03-28/ifrs-cor_2013-03-28.xsd"
    xmlns:link="http://www.xbrl.org/2003/linkbase" xmlns:xlink="http://www.w3.org/1999/xlink"
    xmlns="http://www.xbrl.org/2003/instance" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:iso4217="http://www.xbrl.org/2003/iso4217" >

        <link:schemaRef xlink:type="simple" xlink:href="http://www.xbrl.org/2006/ref-2006-02-27.xsd"/>

        <link:linkbaseRef xlink:href="ifrs/ias_1/pre_ias_1_2013-03-28_role-210000.xml"
        xlink:title="Presentation Link, Consolidated statement of financial position, current/non-current
        classification" xlink:type="simple" xlink:role="http://www.xbrl.org/2003/role/presentationLinkbaseRef"
        xlink:arcrole="http://www.w3.org/1999/xlink/properties/linkbase"/>

        <link:linkbaseRef xlink:href="ifrs/dimensions/dim_ifrs_2013-03-28_role-903000.xml"
        xlink:title="Definition Link, Dimension - Continuing and discontinued operations " xlink:type="simple"
        xlink:role="http://www.xbrl.org/2003/role/definitionLinkbaseRef"
        xlink:arcrole="http://www.w3.org/1999/xlink/properties/linkbase"/>

    </xbrl>
```

Illustration 7.   An example entry point instance document

Entry point schemas provided in the root IFRS Taxonomy folder do not constitute official taxonomy files.

### 2.3.4    Namespaces

In order to differentiate between concepts (and to modularise the schemas) in subsequent IFRS Taxonomy releases and also to support taxonomy versioning, namespace unique resource identifiers (URIs) are used for each taxonomy release date.   The IFRS Taxonomy uses namespaces constructed according to the guidelines presented in Table 2 (below).

Table 2.   Namespace prefixes and namespace URIs

| Namespace prefix | Namespace URI | Use |
|---|---|---|
| ifrs | http://xbrl.ifrs.org/taxonomy/YYYY-MM-DD/ifrs | Main namespace for all IFRS Taxonomy concepts (where YYYY-MM-DD is the taxonomy release date). |
| rol_{ias \| ifrs \| ifric \| sic \| ps_mc}_{"number"}_YYYY-MM-DD | http://xbrl.ifrs.org/role/ifrs/rol_{ias \| ifrs \| ifric \| sic \| ps_mc}_{"number"}_YYYY-MM-DD | Namespace for the standards' roles schemas (where YYYY-MM-DD is the standard or interpretation issue date related to the latest taxonomy release date). This namespace is not used for concepts.   Example of such role is rol_ias_1_2013-03-28 with URI http://xbrl.ifrs.org/role/ifrs/IAS_1_2013-03-28_role-210 000 |
| rol_dim | http://xbrl.ifrs.org/role/ifrs/dimensions | Namespace for the dimensional roles schema.   This namespace is not used for concepts. |
| rol_smes | http://xbrl.ifrs.org/role/ifrs/ifrs_for_smes | Namespace for roles for IFRS for SMEs.   This namespace is not used for concepts. |
| rol_dim_smes | http://xbrl.ifrs.org/role/ifrs/ifrs-for-smes/dimensions | Namespace for the dimensional roles schema for IFRS for SMEs.   This namespace is not used for concepts. |
| ifrs | http://xbrl.ifrs.org/taxonomy/YYYY-MM-DD/ifrs | Namespace for deprecated IFRS Taxonomy concepts (where YYYY-MM-DD is the release date of the taxonomy that has been deprecated). |

### 2.3.5    Core, role and entry-point schemas

The IFRS Taxonomy uses a single schema to define of all reporting concepts (*ifrs-cor_YYYY-MM-DD.xsd*).   The IFRS Taxonomy does not use tuples or typed axes.[*]   Items and explicit axes are used instead.[†]   There are a total of 3,805 concepts in the IFRS Taxonomy 2013.   The IFRS Taxonomy uses three substitution groups defined by XBRL Specifications - item, hypercubeItem and dimensionItem.

Table 3.   Statistics for substitution groups in the IFRS Taxonomy

| Item type | Occurrences |
|---|---|
| item | 3626 |
| hypercubeItem (table) | 91 |
| dimensionItem (axis) | 88 |

In the IFRS Taxonomy, only the core schema (*ifrs-cor_YYYY-MM-DD.xsd*) contains reportable concepts.   As well as the core schema, an additional role schema is placed in each standard (and axes) folder.   These role schemas contain definitions of the presentation, calculation and definition ELRs.   Role schemas do not contain concepts, tables, axes or members.   Entry point schemas are not part of the official IFRS Taxonomy.   Table 4 provides guidelines for constructing role URIs for ELRs in the IFRS Taxonomy.

---

[*] Tuples are not used because of extensibility issues.

[†] This corresponds with domain modelling using hierarchies and explicit axes only.

Table 4. Guidelines for role URIs for ELRs[*]

| Role URI |
|---|
| http://xbrl.ifrs.org/role/ifrs/{ias \| ifrs \| ifric \| sic \| ps_mc}_{"number"}_YYYY-MM-DD_role-{"unique role number[†]"} (where YYYY-MM-DD is the standard or interpretation issue date related to the latest taxonomy release date) for example http://xbrl.ifrs.org/role/ifrs/IFRS_5_2013-03-28_role-851300 |
| http://xbrl.ifrs.org/role/ifrs/ifrs-dim_role-{"unique role number"} for example http://xbrl.ifrs.org/role/ifrs/ifrs-dim_role-901000 |
| http://xbrl.ifrs.org/role/ifrs/ifrs_for_smes_YYYY-MM-DD_role-{"unique role number"} (where YYYY-MM-DD is the standard or interpretation issue date related to the latest taxonomy release date) for example http://xbrl.ifrs.org/role/ifrs/ifrs_for_smes_2013-03-28_role-210000 |
| http://xbrl.ifrs.org/role/ifrs/ifrs_for_smes-dim_role-{"unique role number"} for example http://xbrl.ifrs.org/role/ifrs/ifrs_for_smes-dim_role-913000 |

Table 5 presents the item types used in the IFRS Taxonomy. For most entity-specific extensions, preparers should select either a monetary item type or a string item type.

Table 5. Item types that are used in the IFRS Taxonomy

| Item type | Occurrences |
|---|---|
| text block[‡] | 379 |
| per share | 14 |
| percent | 67 |
| date | 10 |
| decimal | 25 |
| monetary | 1,660 |
| pure | 5 |
| shares | 13 |
| string | 1,220 |
| domain (for domains and domain members) | 412 |

In the IFRS Taxonomy, concept names and identifiers (IDs) follow 'Camel Case' best practice. For example, a concept that has the label *Weighted average share price* has the name *WeightedAverageSharePrice* and the ID *ifrs_WeightedAverageSharePrice.* In the IFRS Taxonomy, concept names and IDs are not updated if there are changes in IFRS terminology or labels. They remain stable for mapping purposes (although this may cause variations to the general 'Camel Case' rule). However because of this, concept names and IDs should not be used to infer the meaning or semantics of a concept. Labels and information from other linkbases should be used instead. <u>Concept names and IDs should be treated as technical identifiers only</u>.

### 2.3.6 Deprecated schema

In addition to the core schema, the IFRS Taxonomy provides a deprecated schema. The deprecated schema contains concepts from the previous taxonomy releases. Deprecated concepts use deprecated labels and date label roles to provide information about the deprecation. A deprecated schema uses the namespace URI from the taxonomy that it is deprecating (ie the previous core schema namespace). The deprecated schema does not constitute an official IFRS Taxonomy file.

### 2.3.7 Linkbases

The Standard Approach used to develop the IFRS Taxonomy (please refer to section 2.1.1 on page 10) enables linkbases to be organised and viewed by IFRSs (when ELRs are sorted by their URIs), or according to financial statements (when ELRs are sorted by their definitions). To give practical effect to this, the IFRS Taxonomy includes artificial six-digit numbers in square brackets at the beginning of each ELR definition which provide viewing and sorting functionality (this number is not related to the underlying IFRSs). ELRs between [100000] and [899999] refer to IFRS hierarchies and dimensional structures, while ELRs between [900000] and [999999] represent *for application* dimensional components.

---

[*] Please refer to Appendix A: Style Guide for guidelines on role definitions.

[†] The six digit number can be followed by letter a, b, c etc. when a separate ELR is necessary to provide modelling in definition linkbase (for isolation of hypercubes) or calculation linkbase (for conflicts in double calculations). Such additional letters are not provided in presentation linkbase ELRs.

[‡] Text blocks can be reported with escaped (ie XHTML) content. The IFRS Taxonomy uses text blocks as top level concepts for each note disclosure, at the top of each table (with the exception of the Statement of changes in equity) and for a few discrete disclosure requirements where a sting concept would not adequately reflect a complex disclosure requirement.

Illustration 8 (below) provides an example of IFRS Taxonomy presentation linkbases sorted by ELR definitions.

| |
|---|
| Extended link [105000] Management commentary |
| Extended link [110000] General information about financial statements |
| Extended link [210000] Statement of financial position, current/non-current |
| Extended link [220000] Statement of financial position, order of liquidity |
| Extended link [310000] Statement of comprehensive income, profit or loss, by function of expense |
| Extended link [320000] Statement of comprehensive income, profit or loss, by nature of expense |
| Extended link [410000] Statement of comprehensive income, OCI components presented net of tax |
| Extended link [420000] Statement of comprehensive income, OCI components presented before tax |
| Extended link [510000] Statement of cash flows, direct method |
| … |

Illustration 8.   The ELRs of the IFRS Taxonomy organised according to financial statements

Illustration 9 (below) provides an example of IFRS Taxonomy linkbases sorted by IFRSs.   The notes and statements from the previous view are organised by single IFRSs.

| |
|---|
| **Practice Statement Management Commentary** |
| Extended link [105000] Management commentary |
| **IFRS 1** |
| Extended link [819100] Notes - First time adoption |
| **IFRS 2** |
| Extended link [834120] Notes - Share-based payment arrangements |
| **IFRS 3** |
| Extended link [817000] Notes - Business combinations |
| **IFRS 4** |
| Extended link [836500] Notes - Insurance contracts |
| **IFRS 5** |
| Extended link [825900] Notes - Non-current asset held for sale and discontinued operations |
| **IFRS 6** |
| Extended link [822200] Notes - Exploration for and evaluation of mineral resources |
| **IFRS 7** |
| Extended link [822390] Notes - Financial instruments |
| **IFRS 8** |
| Extended link [871100] Notes - Operating segments |
| **IAS 1** |
| Extended link [110000] General information about financial statements |
| … |

Illustration 9.   The ELRs of the IFRS Taxonomy organised by IFRSs

### 2.3.8   Linkbase modularisation

The IFRS Taxonomy uses five types of standard XBRL 2.1 linkbases, as well as generic label and reference linkbases.   The linkbase files are referenced via a *linkbaseRef* from the entry point.[*]   Label linkbases are modularised by language and should be referenced via a *linkbaseRef* from the entry point, not from the core schema (*ifrs-cor_YYYY-MM-DD.xsd*) via a *linkbaseRef*.   At least one language linkbase should be referenced from the entry point to avoid errors resulting from the use of preferred labels[†] in the presentation linkbases.

Presentation, calculation and definition linkbases are modularised according to IFRSs.   They are then modularised again in single files for sets of disclosures (statements and notes).   Consequently, single statements including note disclosures are the smallest files that can be referenced from the entry point.

---

[*] An entry point is a schema or instance document with *linkbaseRefs* to the modular linkbases that have been selected for their specific purposes.   An entry point also references the core schema and, if necessary, the axes schema via linkbases.

[†] Preferred labels should not be used to derive semantic meaning of an underlying concept.

### 2.3.9 Reference linkbases

The IFRS Taxonomy uses reference roles as listed in Table 6 (below).

Table 6. Reference roles used in the IFRS Taxonomy

| Reference role | Use |
|---|---|
| http://www.xbrl.org/2003/role/disclosureRef | Reference to documentation that details an explanation of the disclosure requirements relating to the concept. |
| http://www.xbrl.org/2003/role/exampleRef | Reference to documentation that illustrates by example the application of the concept that assists in determining appropriate usage. |
| http://www.xbrl.org/2009/role/commonPracticeRef | Reference for common practice disclosure relating to the concept. Enables common practice reference to a given point in a literature (for example commonPracticeRef to Name:IAS, Number:16, Paragraph:24). The content of the common practice disclosure is the same as other references (so for example contains parts Name, Number, IssueDate, Paragraph). |

The IFRS Taxonomy uses the reference parts listed in Table 7 (below) as defined by XBRL International in the reference schema.[*] For each IFRS reference resource, the IFRS Taxonomy provides, at a minimum, the Name, Number, IssueDate, and Paragraph or Section (these are not provided for generic reference linkbase). The only exception is the IFRS for SMEs and the IFRS Practice Statement *Management Commentary*, where numbers are not applicable. If available, the IFRS Taxonomy also provides the URI and URI date that links to the *x*IFRS.[†] The link between the IFRS Taxonomy and the *e*IFRS is made possible by a reference linkbase, where a URI to an item of web-based content is introduced. These URIs enable IFRS Taxonomy concepts to be linked to corresponding *e*IFRS text.

Table 7. Reference parts that are used in the IFRS Taxonomy

| Reference part | Use |
|---|---|
| Note | Empty or "Effective YYYY-MM-DD" or "Expiry date YYYY-MM-DD" |
| Name | {IFRS\|IAS\|IFRIC\|SIC\|IFRS for SMEs\|MC} |
| Number | Number of the standard or interpretation |
| IssueDate | Issue date of the standard or interpretation |
| Section | Title of sections of standard or interpretation (or section number in case of IFRS for SMEs) |
| Subsection | Title of the subsection of the section (applicable to IFRS for SMEs only) |
| Paragraph | Paragraph (number) in the standard |
| Subparagraph | Subparagraph (number) of a paragraph |
| Clause | Subcomponent of a subparagraph |
| URI | Link to text of the standard in xIFRS |
| URIDate | Validity date of the link in xIFRS |

Reference resources are placed in the linkbase files of the corresponding standard, with the exception of references to standards that do not have a disclosure section (ie IAS 32, IAS 39 and IFRIC 17) for which no other linkbases are provided and for which references are placed in the reference linkbase for IAS 1. Reference linkbases in the IFRS Taxonomy also use single resources to refer to a standard.

### 2.3.10 Label linkbases

The IFRS Taxonomy defines 4,253 labels (label resources) which are constructed according to a Style Guide (see Appendix C) to ensure consistency. Table 8 (on page 22) presents the label roles introduced in the IFRS Taxonomy. Terse label roles are used at various points in the IFRS Taxonomy to enhance readability. Total and net label roles are used to indicate calculated hierarchies in the presentation linkbase as preferred labels.

---

[*] The reference schema dated 2006-02-27 is available at *http://www.xbrl.org/2006/ref-2006-02-27.xsd*

[†] *x*IFRS is a tool developed by the IFRS Foundation to support viewing and understanding of the IFRS Taxonomy. *x*IFRS provides a view of the electronic FRSs with embedded XBRL. *e*IFRS (the electronic IFRSs) is the IFRS Foundation's online subscription service that contains the electronic consolidated editions of the IFRSs and accompanying documents. Both *e*IFRS and *x*IFRS can be accessed at *http://eifrs.iasb.org/*

Table 8.   Label roles that are used in the IFRS Taxonomy

| Label role | Occurrence | Use |
|---|---|---|
| http://www.xbrl.org/2009/role/negatedLabel | 161 | Label for a concept, when the value being presented should be negated (sign of the value should be inverted).  For example, the standard and standard positive labels might be profit (loss) after tax and the negated labels loss (profit) after tax. |
| http://www.xbrl.org/2009/role/negatedTotalLabel | 10 | |
| http://www.xbrl.org/2009/role/negatedTerseLabel | 21 | |
| http://www.xbrl.org/2009/role/netLabel | 34 | The label for a concept when it is to be used to present values associated with the concept when it is being reported as the net of a set of other values.  Net labels allow the expression of labels, other than the one to be used as total label, if the presentation tree represents a gross/net calculation instead of a traditional calculation roll-up.  For example, the standard label for Property, plant and equipment can have the total label Total property, plant and equipment and the net label Net property, plant and equipment. |
| http://www.xbrl.org/2009/role/deprecatedLabel | -- | The label for a concept indicating that the concept has been deprecated (used only for deprecated schema). |
| http://www.xbrl.org/2009/role/deprecatedDateLabel | -- | |
| http://www.xbrl.org/2003/role/label | 3,805 | Standard label role for a concept. The IFRS Taxonomy uses standard labels to guarantee uniqueness of the labels. |
| http://www.xbrl.org/2003/role/totalLabel | 143 | The label role for a concept when it is to be used to present values associated with the concept when it is reported as the total of a set of other values. This role should not be used to infer semantics of facts reported in instance documents. |
| http://www.xbrl.org/2003/role/periodStartLabel | 30 | The label role for a concept with the periodType="instant" when it is to be used to present values associated with the concept when it is reported as a start (end) of period value. These roles should not be used to infer semantics of facts reported in instance documents. |
| http://www.xbrl.org/2003/role/periodEndLabel | 30 | |
| http://www.xbrl.org/2003/role/terseLabel | 19 | Short label role for a concept, often omitting text that should be inferable when the concept is reported in the context of other related concepts. |

## 2.3.11   Total and net labels

The IFRS Taxonomy uses preferred label roles in the presentation linkbase to indicate calculation roll-ups.   Table 9 (below) presents two label roles used in the IFRS Taxonomy to indicate calculation information.

Table 9.   Label roles that provide calculation information in the presentation linkbase

| Label role | Use |
|---|---|
| http://www.xbrl.org/2009/role/netLabel | Net label |
| http://www.xbrl.org/2003/role/totalLabel | Total label role |

Illustration 10 (below) presents the use of the preferred label *netLabel* role in the Statement of cash flows, direct method. Illustration 13 provides an example of how this information may be visualised (in this instance, by means of (X)) in software products. The same applies to the labels listed in Table 9 (above).

```
<link:presentationArc

xlink:arcrole="http://www.xbrl.org/2003/arcrole/parent-child"

xlink:type="arc"

xlink:from="loc_34"

xlink:to="loc_123"

order="90"

use="optional"preferredLabel="http://www.xbrl.org/2009/role/netLabel"/>
```

Illustration 10.   Use of a net preferred label in the presentation linkbase

| Extended link [210000] Statement of financial position, current/non-current |
| --- |
| Statement of financial position [abstract] |
| ... |
|   Equity and liabilities [abstract] |
|    Equity [abstract] |
|     Issued capital |
|     Retained earnings |
|     Share premium |
|     Treasury shares |
|     Other equity interest |
|     Other reserves |
|     **Total equity attributable to owners of parent** |
|     Non-controlling interests |
|     **Total equity** |
|     ... |

Illustration 11.   Visualisation of the total label role

#### 2.3.12   Negated labels

Negated labels in the IFRS Taxonomy use a set of label roles from the XBRL International Link Role Registry (LRR).   The use of negated labels does not affect the sign of a reported value in XBRL.   Negating a label only affects the visualisation of the reported data, it does not affect the data itself (there is no influence on the sign of reported facts).   A processor should multiply the displayed amount by -1 for visualisation purposes only.   Table 10 (below) provides a complete list of negated labels used in the IFRS Taxonomy.

Table 10.   Negated label roles that are used in the IFRS Taxonomy

| Label role | Use |
| --- | --- |
| http://www.xbrl.org/2009/role/negatedLabel | Standard negated label role |
| http://www.xbrl.org/2009/role/negatedTotalLabel | Negated total label role |
| http://www.xbrl.org/2009/role/negatedTerseLabel | Terse negated label role |

Illustration 12 (below) provides an example of the use of a negated preferred label in the code of a presentation linkbase.

```
<link:presentationArc
xlink:arcrole="http://www.xbrl.org/2003/arcrole/parent-child"
xlink:type="arc"
xlink:from="loc_56"
xlink:to="loc_78"
order="60"
use="optional"
preferredLabel="http://www.xbrl.org/2009/role/negatedLabel"/>
```

Illustration 12.   Example use of a negated preferred label in a presentation linkbase

Software products may use information about IFRS Taxonomy negated labels to invert the sign of a displayed value.   Inverted values may be presented in brackets, in a separate column or with a minus before the value.   As shown in Illustration 13 a number of values (represented in brackets as *(X)*) are inverted because the presentation arc *preferredLabel* attribute value matches one of the values listed in Table 10 (above).

For some concepts, there is also an inverted label in the negated label role.   For example, the concept *Income taxes paid (refund), classified as operating activities* has a negated terse label (*negatedTerseLabel*) *Income taxes refund (paid)* in the presentation linkbase for *Sstatement of cash flows, direct method*).   For all concepts that do not have a reverse label in the label linkbase negated label role, but which do have a presentation linkbase preferred label role set to a negated label, the inverting applies only to the sign of the value and not to the label itself.

#### 2.3.13   Presentation linkbases

In order to ensure that presentation hierarchies and relationships between concepts are consistent, the IFRS Taxonomy follows a rule whereby a non-abstract concept that is a parent in a corresponding calculation linkbase is (generally) represented in the presentation linkbase as the last of its calculation siblings, unless a different ordering is more practicable.

### 2.3.14 Calculation linkbases

The IFRS Taxonomy uses calculation linkbases in the manner prescribed by the XBRL 2.1 Specification and provides all possible calculations for hierarchies. Illustration 13 (below) provides an example of the presentation view with calculations of *Statement of comprehensive income, profit or loss, by function of expense.*

| Extended link [310000] Statement of comprehensive income, profit or loss, by function of expense | | |
|---|---|---|
| Profit or loss [abstract] | | |
| Profit (loss) [abstract] | | |
| Revenue | X | IAS 1.102, IAS 1.103, IAS 1.82 a, IAS 18.35 b, IAS 28.37 b, IAS 28.37 i, IAS 31.56, IFRS 8.23 a, IFRS 8.28 a, IFRS 8.32, IFRS 8.33 a, IFRS 8.34 |
| Cost of sales | (X) | IAS 1.103, IAS 1.99 |
| Gross profit | X | IAS 1.103 |
| Other income | X | IAS 1.102, IAS 1.103, IAS 26.35 b (iv) |
| Distribution costs | (X) | IAS 1.103, IAS 1.99 |
| Administrative expenses | (X) | IAS 1.103, IAS 1.99, IAS 26.35 b (vi) |
| Other expense | (X) | IAS 1.103, IAS 1.99, IAS 26.35 b (vii) |
| Other gains (losses) | X | IAS 1.102, IAS 1.103 |
| Profit (loss) from operating activities | X | IAS 32.IE33 |
| Difference between carrying amount of dividends payable and carrying amount of non-cash assets distributed | X | IFRIC 17.15 |
| Gains (losses) on net monetary position | X | IAS 29.9 |
| Gain (loss) arising from derecognition of financial assets measured at amortised cost | X | IAS 1.82 aa |
| Finance income | X | IAS 1.85 |
| Finance costs | (X) | IAS 1.82 b |
| Share of profit (loss) of associates and joint ventures accounted for using equity method | X | IAS 1.82 c |
| Other income (expense) from subsidiaries, jointly controlled entities and associates | X | IAS 1.85 |
| Gains (losses) arising from difference between previous carrying amount and fair value of financial assets reclassified as measured at fair value | X | IAS 1.82 ca |
| Profit (loss) before tax | X | IAS 1.102, IAS 1.103, IFRS 8.23, IFRS 8.28 b |

Illustration 13. Presentation view with calculations – Statement of comprehensive income

### 2.3.15 Definition linkbases

The IFRS Taxonomy uses definition linkbases to express dimensional relationships. The IFRS Taxonomy defines axes and members for listed relationships, and therefore only uses explicit axes. Typed axes are not used in the IFRS Taxonomy. The IFRS Taxonomy defines tables where an axis has clearly been applied to a set of line items. Consequently, axes in the IFRS Taxonomy are either *applied* (to line items) or *for application* (not linked in a table). The latter can be connected to any set of line items, depending on the needs of the preparer.

There are two types of definition linkbases in the IFRS Taxonomy. The first is the definition linkbase file placed in the standards folder, which mirrors the structure of the presentation linkbase if the presentation linkbase contains a table. These filenames have the prefix *def_*, they represent hierarchies of line items, and they link axes to a given set of reportable items (line items) within the IFRS Taxonomy. These hierarchies re-use the presentation linkbase ELRs and therefore also their ordering numbers (ELR definitions that are numbered between [100000] and [899999] represent line items).

The second type of definition linkbase represents axes, and these are placed in the dimensions folder or in the standards folder (if they represent axes that are applied to a set of line items). Dimensional definition linkbases also have an equivalent in the structure of the presentation linkbase. These filenames have the prefix *dim_* or *pre_*. ELR definitions that are numbered between [900000] and [989999] should be linked via tables with ELR definitions numbered between [100000] and [899999][*] or they should already be linked to the respective sets of line items. It is possible to combine one set of line items with more than one axis on a table.

All defaults for axes (dimensions) are placed in a single ELR number [990000] to avoid redundancies. This ELR does not have an equivalent in the presentation linkbase.

---

[*] In other words, ELRs that have the prefix *def_* should be linked via a table (hypercube) with ELRs from the file that have the prefix *dim_*.

### 2.3.16 Generic label and reference linkbases

The IFRS taxonomy makes use of the generic links specification
(http://www.xbrl.org/Specification/gnl/REC-2009-06-22/gnl-REC-2009-06-22.html) to provide labels for ELRs in languages other than
English and also to provide references to ELRs. The level of support for this specification in software may vary.
Illustration 14 (below) provides a code example of the Spanish definition of ELR 110000.

```
<label:label xlink:label="res_1" xlink:role="http://www.xbrl.org/2008/role/label" xlink:type="resource" xml:lang="es">[110000]

Información general sobre estados financieros</label:label>

<link:loc xlink:href="rol_ias_1_2013-03-28.xsd#ias_1_2013-03-28_role-110000" xlink:label="loc_1" xlink:type="locator"/>

<gen:arc xlink:arcrole="http://xbrl.org/arcrole/2008/element-label" xlink:from="loc_1" xlink:to="res_1" xlink:type="arc"/>
```

Illustration 14.    Example use of a generic label for an ELR

Illustration 15 (below) provides a code example of a reference to IAS 1 for an ELR.

```
<link:loc xlink:type="locator" xlink:href="rol_ias_1_2013-03-28.xsd#IAS_1_2013-03-28_role-110000" xlink:label="arc_2"/>
<gen:arc
xlink:type="arc"
xlink:from="arc_2"
xlink:to="src_2"
xlink:arcrole="http://xbrl.org/arcrole/2008/element-reference"/>
<reference:reference xlink:type="resource" xlink:label="src_2">
<ref:Name>IAS</ref:Name>
<ref:Number>1</ref:Number>
<ref:IssueDate>2013-01-01</ref:IssueDate>
</reference:reference>
```

Illustration 15.    Example use of a generic reference for an ELR

## 2.4 Additional XBRL technologies

This section describes support for some of the other available XBRL technologies/specifications.

### 2.4.1 Versioning

The release of the IFRS Taxonomy is aligned with the IASB time line for releasing the IFRS Bound Volume. Amendments to the IFRS Taxonomy are required following changes in IFRSs or changes in technology. XBRL International has published a Candidate Recommendations (CR) Versioning Specification which aims to provide a framework for documenting differences between taxonomy versions, known as taxonomy versioning reports, which are both human- and computer-readable.

The aim of a versioning report is to help users when migrating to a new taxonomy version with as little effort and associated costs as possible. The report contains information provided by the taxonomy developer on changes, descriptions, classifications and mappings of concepts within a new version of the taxonomy. For example, a versioning report could state that the concepts *ifrs2008:assets* and *ifrs2009:assets* are equivalent, or that the concept *ifrs2005:balanceSheet* has been renamed to *ifrs2008:statementOfFinancialPosition*.

### 2.4.2 Formulae

The official IFRS Taxonomy does not provide a formula linkbase, however the IFRS formula linkbase is continuously updated on the annual basis and it is published as a separate module. The most up to date formula linkbase has been released on 6 August 2012[*]. Further improvements to existing prototype will be provided as an addition to the IFRS Taxonomy 2013 to be used for testing purposes.

### 2.4.3 Inline XBRL

iXBRL (Inline XBRL) can be used to provide filings based on the IFRS Taxonomy 2013, and the IFRS Foundation has published a set of illustrative examples in iXBRL format[†]. The GFM also provides a set of rules for filings created using iXBRL.

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[*] http://www.ifrs.org/tools/Pages/Formula-Linkbase-2012.aspx

[†] Examples of XBRL and Inline XBRL documents prepared using the IFRS Taxonomy 2013 are available from the IFRS website at *http://www.ifrs.org/XBRL/Resources/Pages/XBRL-Illustrative-examples.aspx*. The purpose of these examples is to illustrate the use of the IFRS Taxonomy in financial statements, in accordance with the XBRL architecture outlined in this guide.

## 3    Preparer's Guide

### 3.1    Introduction

This section outlines how to prepare instance documents and entity-specific extensions using the IFRS Taxonomy.   The specific requirements for instance documents and entity-specific extensions based on the IFRS Taxonomy are normally prescribed by receiving institutions or are included in local regulations.   The IFRS Foundation, together with other members of the ITA project, has published The GFM (Global Filing Manual) which contains a set of rules which provide guidance on the preparation, filing and validation of XBRL filings.   Preparers should follow the guidelines in the GFM unless the receiving institution that they are filing to prescribes additional or amended filing rules.

This section also provides general guidance on how the IFRS Taxonomy should be used when preparing financial statements in XBRL format.   Illustration 16 (below) presents the different stages involved in preparing instance documents, entity-specific extensions and financial statements using the IFRS Taxonomy, and these stages are covered in greater detail in the following sections.
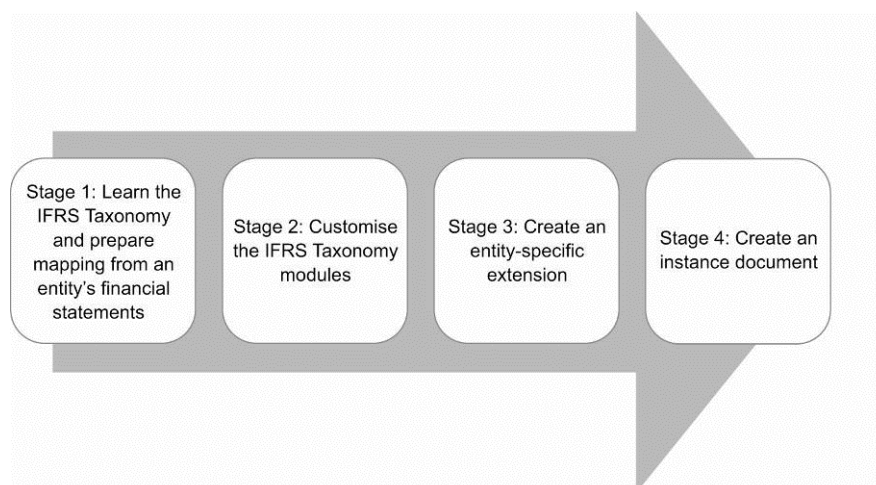


Illustration 16.   The process for preparing financial statements based on the IFRS Taxonomy

For the first stage - learn the IFRS Taxonomy and prepare mapping from an entity's financial statements - working directly with the IFRS Taxonomy is required.   In the second stage - customise the IFRS Taxonomy - an entry point with the required IFRS Taxonomy components is created.   The third stage - create an entity-specific extension - focuses on extending the customised IFRS Taxonomy, whereby an entity creates its own taxonomy components to reflect line items in its financial statements that do not have equivalent components in the IFRS Taxonomy.   Finally, the outcome of stage four - create an instance document - is to create an XBRL instance document based on the IFRS Taxonomy and the entity-specific concepts defined in the previous stage.
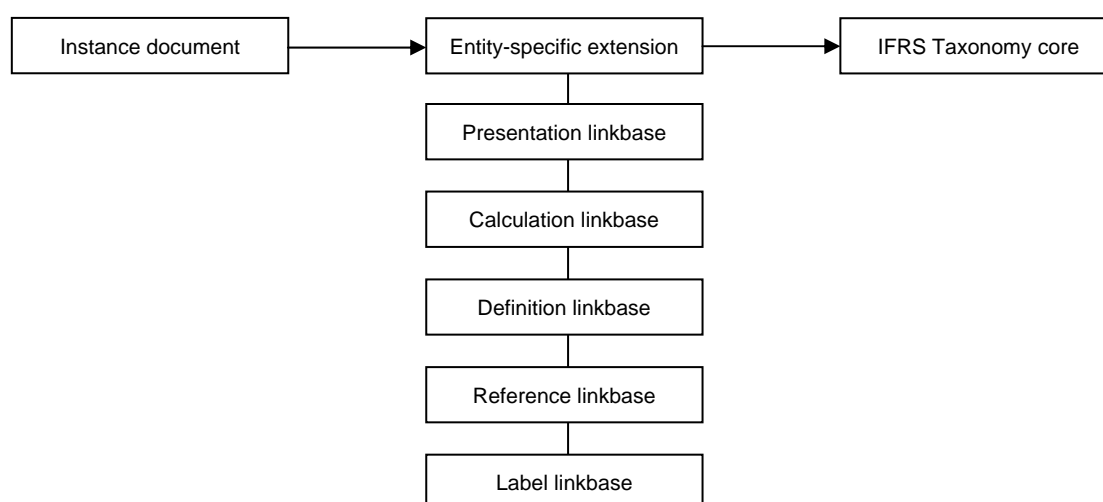


Illustration 17.   The outcomes of the preparers' process

## 3.2   Learning and mapping the IFRS Taxonomy

In order to work with the IFRS Taxonomy it is advisable to first learn how the IFRS Taxonomy reflects the IFRSs from a financial reporting perspective.   The easiest way to learn about the structure and content of the IFRS Taxonomy is to use *The IFRS Taxonomy Illustrated* and the *x*IFRS (IFRSs with XBRL)*, or to navigate the taxonomy using an XBRL tool (preferably one with taxonomy viewing functionalities).   All components of the IFRS Taxonomy, except for those from the IFRS for SMEs, can be organised and viewed in two ways – either by financial statements, or by IFRSs.   Components for the IFRS for SMEs can only be viewed by financial statements.   Examples of sorting by financial statements and by IFRSs are presented in section 2.3.7 (on page 19).

IFRS Taxonomy components are grouped using what are referred to in XBRL terminology as extended link roles or extended links (ELRs)

The IFRS Taxonomy consists of modularised ELRs which represent sets of disclosure requirements.   Examples of these modularised components are:

- Financial statements excluding notes – for example *Statement of cash flows, indirect method* (see Illustration 18)

| Extended link [520000] Statement of cash flows, indirect method |
| --- |
| Statement of cash flows [abstract] |
| Cash flows from (used in) operating activities [abstract] |
| Profit (loss) |
| Adjustments to reconcile profit (loss) [abstract] |
| Adjustments for non-cash income tax expense |
| Adjustments for non-cash finance costs |
| Adjustments for income tax expense |
| Adjustments for finance costs |
| Adjustments for decrease (increase) in inventories |
| Adjustments for decrease (increase) in trade accounts receivable |
| Adjustments for decrease (increase) in other operating receivables |
| Adjustments for increase (decrease) in trade accounts payable |
| Adjustments for increase (decrease) in other operating payables |
| ... |

Illustration 18.   Presentation view of the *Statement of cash flows, indirect method*

- Notes – for example *Notes – Hyperinflationary reporting* (see Illustration 19)

| Extended link [816000] Notes - Hyperinflationary reporting |
| --- |
| Disclosure of hyperinflationary reporting [text block] |
| Explanation of fact that financial statements and corresponding figures for previous periods have been restated for changes in general purchasing power of functional currency |
| Description of bases of financial statements that have been restated for changes in general purchasing power of functional currency |
| Description of identity of price index |
| Level of price index |
| Price index movements |
| Gains (losses) on net monetary position |

Illustration 19.   Presentation view of *Notes – Hyperinflationary reporting*

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- Notes with dimensional constructs – for example *Notes – Operating segments* (see Illustration 20)

| **Extended link [871100] Notes - Operating segments** |
| :--- |
| Disclosure of entity's reportable segments [text block] |
|     Description of factors used to identify entity's reportable segments |
|     Description of types of products and services from which each reportable segment derives its revenues |
|     Description of sources of revenue for all other segments |
|     Description of basis of accounting for transactions between reportable segments |
|     Description of nature of differences between measurements of reportable segments' profits or losses and entity's profit or loss before income tax expense or income and discontinued operations |
|     Description of nature of differences between measurements of reportable segments' assets and entity's assets |
|     Description of nature of differences between measurements of reportable segments' liabilities and entity's liabilities |
|     Description of nature of changes from prior periods in measurement methods used to determine reported segment profit or loss and effect of those changes on measure of segment profit or loss |
|     Description of nature and effect of any asymmetrical allocations to reportable segments |
|     Disclosure of operating segments [text block] |
|         Disclosure of operating segments [abstract] |
|             Disclosure of operating segments [table] |
|                 Segment consolidation items [axis] |
|                     Entity's total for segment consolidation items [member] |
|                         Operating segments [member] |
|                         Material reconciling items [member] |
|                             Elimination of intersegment amounts [member] |
|                             Unallocated amounts [member] |
|                 ... |

Illustration 20.    Presentation view of *Notes - Operating segments*

The IFRS Taxonomy consists of a number of ELRs and concepts.    Modelling concepts by the means of hierarchies and axes is of particular importance when mapping to an entity's own financial statement components.    Three approaches are used to model IFRSs in the IFRS Taxonomy:

(i)      financial statements (excluding notes),

(ii)     notes, and

(iii)    axes, which are used to provide general information about sets of line items.

Once preparers are familiar with the structure of the IFRS Taxonomy, they should then map their financial statements to IFRS Taxonomy ELRs, relationships and concepts.    Prepares should only consider IFRS Taxonomy ELRs, relationships and concepts that are relevant to their specific financial statements.    Any disclosures that cannot be mapped (because there are no equivalents in the IFRS Taxonomy) will need to be extended at a later stage.    It should be noted that necessary disclosures may be found elsewhere in the Taxonomy and not necessarily only in the corresponding note, and also labels may not match line items exactly.    Illustration 21 (on page 30) is an example of mapping an entity's financial statement with the IFRS Taxonomy.

| Consolidated statement of financial position | | IFRS Taxonomy 2013 | |
|---|---|---|---|
| **EUR, 000** | **2010-12-31** | **[210000] Statement of financial position, current / non-current** | |
| **Assets** | | Statement of financial position | |
| **Current assets** | |   Assets | |
| Cash | 28,700 |     Non-current assets | |
| Trade and other current receivables | 585,548 | | |
| Inventories | 57,381 |     Property, plant and equipment | IAS 1.54, IAS 16.73 |
| | 671,629 | | |
| Non-current assets | |     Investment property | IAS 1.54, IAS 40.76, IAS 40.79 |
| Investment accounted for using equity method | 107,500 |     Goodwill | IAS 1.54, IAS 36.134, IAS 36.135, IFRS 3.B67 |
| Property, plant and equipment | 2.549,945 | | |
| Intangible assets other than goodwill | 850 | Intangible assets other than goodwill | IAS 1.54, IAS 36.134, IAS 36.135, IAS 38.118 |
| Deferred tax assets | 4,309 | | |
| | 2,662,604 | | |
| Total assets | 3,334,233 | | |

Illustration 21.   Mapping between an entity's financial statement (left) and the IFRS Taxonomy (right)

## 3.3    Customising the IFRS Taxonomy

After the line items of an entity's financial statements have been conceptually mapped to the IFRS Taxonomy, the choices made in this stage need to be realised into files and folders (modules).   These IFRS Taxonomy modules then need to be collected into an entry point.   This entry point, usually in the form of a schema file, can then be used to create an extension.*   While entry points are not necessarily needed for filing purposes, they can be useful for navigating the structure of the IFRS Taxonomy and for finding appropriate concept when mapping to an entity's disclosures.

For example, during the mapping phase an entity must choose to use either the *Statement of cash flows, direct method* or the *Statement of cash flows, indirect method*.   These choices are conducted at the file level using software products.

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* As an alternative approach, preparers can use one of the entry point schemas provided with the IFRS Taxonomy (the combined entry point, the full entry point or the SMEs entry point).

## 3.4 Creating an entity-specific extension

The IFRS Taxonomy represents core concepts as they are set out in the IFRSs. In an entity-specific extension, preparers provide supplementary concepts for the IFRS Taxonomy together with respective relations for these concepts (and their relations to IFRS Taxonomy concepts), and therefore the core set of concepts is extended, as presented in Illustration 22 (below).

More detailed rules on creating entity specific extensions are available in the GFM.
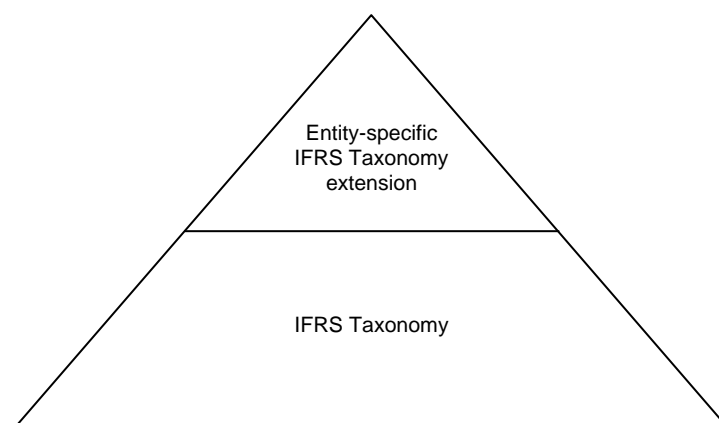


Illustration 22.   The core IFRS Taxonomy and extensions

### 3.4.1    The structure of an extension

There is no single approach for extending the IFRS Taxonomy.   Preparers can first create concepts and then later link them within linkbases, or preparers can start with taxonomy component definitions such as ELRs and then add concepts later.  The GFM requires preparers to provide their own linkbases and extension schemas without reusing IFRS Taxonomy linkbases during filing (although they can, and should, be used during filing preparation).   It is advisable to first add ELRs as identified in the mapping process, then to add missing concepts, and finally to link existing IFRS Taxonomy concepts with the added concepts in the entity-specific linkbases.

Existing IFRS Taxonomy concepts must be reused wherever possible.   In cases where a concept is not already defined in the IFRS Taxonomy, only then should an entity-specific concept be added.

### 3.4.2    Adding extended link roles (ELRs)

The IFRS Taxonomy consists of a number of ELRs representing financial statements excluding notes, notes and axes.   IFRS Taxonomy relationships (financial statements excluding notes, notes or axes) can be directly copied into extension linkbases (thus becoming entity specific linkbases consistent with the approach suggested by the GFM).

Using the option to sort the ELRs by their definitions and introducing six digit numbers allows entity-specific disclosures to be ordered appropriately within the entity's ELR structure.

Entity-specific ELRs should be created only for presentation, calculation and definition linkbases (the *usedOn* attribute indicates the application of an ELR).

### 3.4.3    Adding concepts

Entity-specific concepts should only be added when there is no corresponding concept in the IFRS Taxonomy.   To ensure that a concept does not already exist, the IFRS Taxonomy should be searched (using an XBRL tool) to check for the existence of the concept. *The IFRS Taxonomy Illustrated* and *x*IFRS can be used to determine if a concept is exists and therefore if an extension is necessary.

There are several approaches that can be used to search for concepts within the IFRS Taxonomy.   The easiest option is to navigate the IFRS Taxonomy presentation linkbases.   Another option is to search through the IFRS Taxonomy labels or references using the search function of an XBRL tool.

Concepts represent reportable items, tables, axes or members.   Each concept that is added includes a number of characteristics, presented in Illustration 23 (on page 33).   These characteristics must be added to extension concepts and they must be consistent with the architecture of the IFRS Taxonomy.

```
<xsd:element
id="ifrs_Assets"
name="Assets"
type="xbrli:monetaryItemType"
substitutionGroup="xbrli:item"
nillable="true"
xbrli:balance="debit"
xbrli:periodType="instant"/>
```

Illustration 23.   Characteristics of an IFRS Taxonomy concept

#### 3.4.3.1 Concept name

The concept name should be created using the 'Camel Case' version of the English standard label, in order to ensure consistency as the IFRS Taxonomy changes.   For example, a concept with the label *Leasehold property, leasehold improvements, furniture and equipment* should have the concept name *LeaseholdPropertyLeaseholdImprovementsFurnitureAndEquipment*.

#### 3.4.3.2 Concept ID

The concept ID should be constructed using the entity-specific namespace prefix followed by an underscore (_), followed by the concept name as presented in Illustration 24 (below).

```
<xsd:element
id="ifrs_AdjustmentsForGainLossOnDisposalsPropertyPlantAndEquipment"
name="AdjustmentsForGainLossOnDisposalsPropertyPlantAndEquipment"
nillable="true"
substitutionGroup="xbrli:item"
type="xbrli:monetaryItemType"
xbrli:balance="credit"
xbrli:periodType="duration"/>
```

Illustration 24.   Characteristics of an entity-specific concept

#### 3.4.3.3 Item type

Preparers should define the item type for each concept.   Common item types used in the IFRS Taxonomy, and examples of their use, are presented in Table 11 (below).

Table 11.   Examples of concepts with different item types

| Item type | Example concept |
|-----------|-----------------|
| Monetary | Contributions |
| String | Description of contributions |
| Date | Effective date of disposal |
| Shares | Number of shares |

#### 3.4.3.4 Period type

Concepts representing stocks should have their period type set to *instant*, while concepts representing flows should have their period type set to *duration*.   In cases where the period type is not obvious, the period type attribute should be set to *duration*.

All abstract concepts, axes, tables and members should have their period type set to *duration*.

#### 3.4.3.5 Abstract concepts

Abstract concepts are used to organise hierarchies in the presentation linkbase.   All abstract concepts should have their abstract attribute set to *true*.

Abstract concepts are used to organise hierarchy within the presentation linkbase.   For example, the abstract concept *Profit or loss [abstract]* can be used as a parent in the hierarchy, while the total monetary concept for *Profit (loss)* can be placed as the last child of this parent.

### 3.4.3.6    Members

Members (for example, *Cosmetics* added to *Dimension − Segments*) should be abstract items and their period attribute should be set to *duration* and their type set to *domainItemType*.

### 3.4.3.7    Axes and tables

Concepts added in different than item substitution groups are axes and tables.   The IFRS Taxonomy defines the number of axes that should be used, and preparers are not expected to add new axes unless they are required by entity-specific disclosures.   The IFRS Taxonomy defines tables for most situations when axes are linked to line items.   However there are six axes - and also entity-specific dimensions - which will require preparers to add tables as part of their extensions.

Tables should be created separately for each axis or combination of axes and should be placed in a unique ELR.   For example, for an entity to report line items for *Cash flows* in the context of *Retrospective application and retrospective restatement [axis]*, a table *Retrospective application and retrospective restatement for cash flows [table]* should be added.   Preparers may use the same table to connect one axis with multiple sets of line items if these line items are placed in different ELRs.

> Tables should be in the *hypercubeItemType* substitution group and axes in the *dimensionItemType*. Both should have their type set to *string* and their period type set to *duration*.

### 3.4.3.8    Labels

Concepts may have multiple labels, but at a minimum, concepts should have at least one unique English standard label.   Upper case letters should only be used for the beginning of a label, for names and for abbreviations.   Suffixes for standard labels, which could also be used in extensions, are as follows:

- *[abstract]* should be used for all abstract concepts in a standard label;

- *[text block]* should be used for all string concepts representing text blocks in a standard label;

- *[axis]* should be used for all concepts in the substitution group axes (dimension) in a standard label;

- *[table]* should be used for all concepts in the substitution group table (hypercube) in a standard label.

> Calculation linkbases do not use abstract concepts and it is not possible to use preferred labels on calculation linkbase relationships.

The total label role or net label role should be included at the bottom of a presentation hierarchy for summations or netting in order to be consistent with the approach adopted for the IFRS Taxonomy.   The label in the total or net label role should be added to a concept starting with either the word *Total*, *Net* or *Aggregated* as presented in Table 12 (below).   Furthermore, the presentation linkbase should use the preferred label role in the hierarchy for the concept.

Table 12.   Example use of a total label role

| Label role | Example |
|---|---|
| Standard | Costs of meetings and associated travel |
| Total | **Total** cost of meetings and associated travel |

Preparers should use negated labels as listed in Table 10 (on page 23) to indicate that the reported value should be visualised with the inverted sign.   Illustration 12 (on page 23) provides an example use of a negated label and the corresponding visualisation of the reported facts.

> Not all software tools support the negating of values for negated labels.   Check that your software product supports negated labels as defined in the IFRS Taxonomy (and in the XBRL International Link Role Registry) for facts reported in instance documents.

If necessary, preparers may use their own labels (rather than using labels from the IFRS Taxonomy) to better reflect a concept name. Such changes should not impact the original characteristics of an IFRS Taxonomy concept.

> Preparers can use other technologies to render instance document data (such as XSLT or Inline XBRL) to express their own naming of a specific financial statement position.

Documentation label roles enable additional textual descriptions to be added to a concept.

### 3.4.4    Adding links

The IFRS Taxonomy models concepts consistently within and across presentation, calculation and definition linkbases.  This consistency should be maintained when creating entity-specific extensions in order to retain the possibility of applying axes to each set of line items.   In cases where numeric concepts are calculated, this approach maintains a close correspondence between the calculation and presentation linkbase, and this should be maintained for entity-specific extensions.

When creating entity-specific extensions, preparers should not change the accounting meaning of a concept when creating the extension linkbases. Preparers should be careful when moving concepts to another calculation hierarchy, as this could change the accounting meaning of a concept.

### 3.4.4.1 Extending hierarchies

Preparers should consider the required granularity of the financial information that is to be disclosed when adding concepts to entity-specific extensions. In particular, preparers should consider the level of detail that should be applied to tags for textual disclosures. There are several possible approaches for tagging textual disclosures. Illustration 25 (below) provides an example of a note disclosure pertaining to inventories.

At the highest level of each note, the IFRS Taxonomy includes a text block concept with the suffix *[text block]*. This should be used to report all of disclosure text in an instance document. At the lower level, the IFRS Taxonomy provides separate concepts to tag the significant parts of the disclosure text, and these concepts may be of any type. In the example provided in Illustration 25 (below), one concept is placed at the highest level for all of the disclosure text, and three concepts are placed on the lower level with the string type (*text*) and five monetary concepts.

| Extended link [826380] Notes – Inventories | | |
|---|---|---|
| Disclosure of inventories [text block] | text block | IAS 2 - Disclosure |
| Description of accounting policy for measuring inventories [text block] | text block | IAS 2.36 a |
| Description of inventory cost formulas | text | IAS 2.23, IAS 2.36 a |
| Inventories, at fair value less costs to sell | X | IAS 2.36 c |
| Inventory write-down | X | IAS 2.36 e |
| Reversal of inventory write-down | X | IAS 2.36 f |
| Description of circumstances leading to reversals of inventory write-down | text | IAS 2.36 g |
| Cost of inventories recognised as expense during period | X | IAS 2.36 d |
| Inventories pledged as security for liabilities | X | IAS 2.36 h |

Illustration 25. Level of detail of IFRS Taxonomy concepts

### 3.4.4.2 Extending axes

The IFRS Taxonomy provides a number of axes that may be used to provide information about reported line items. These axes can be divided into axes *for application*, which can be used for any line item in any ELR, and *applied* axes, which are more common and which are linked within a dedicated ELR with a particular set of line items. Some axes *for application* (for example *Dimension – Retrospective application and retrospective restatement*) are applied to monetary concepts, whereas other axes *for application* may be applied to all concepts regardless of their type. For example, preparers may link the *Statement of financial position, current/non-current* as presented in Illustration 26 (below) with the *Dimension – Retrospective application and retrospective restatement* to generate the dimensional model presented in Illustration 27 (on page 36).

| Extended link [210000] Statement of financial position, current/non-current |
|---|
| Statement of financial position [abstract] |
| Assets [abstract] |
| .... |
| Equity and liabilities [abstract] |
| .... |
| Retrospective application and retrospective restatement for statement of financial position [table] |
| Retrospective application and retrospective restatement [axis] |

Illustration 26. A model of an axes and a set of line items connected by the means of a table

| | Retrospective application and retrospective restatement [axis] | | | |
|---|---|---|---|---|
| | Currently stated [member] | | | |
| | | Previously stated [member] | Increase (decrease) due to changes in accounting policy [member] | Increase (decrease) due to corrections of prior period errors [member] |
| Statement of financial position | | | | |
| Assets | | | | |
| Non-current assets | | | | |
| Property, plant and equipment | | | | |
| Investment property | | | | |
| Goodwill | | | | |

Illustration 27.   A tabular presentation of a dimensional relationship

The relationship between line items and a table defines the Cartesian product (between line items and linked members) for dimensional information in an instance document.   Preparers should link the members with the axes that they are created for in the definition linkbase.   For example, the member *Mexico* created for the axis *Geographical areas [axis]*.   Illustration 28 (below) provides an example of adding domain members to the axis *[871100] Notes - Operating segments*.

| **Extended link [871100] Notes - Operating segments** |
|---|
| Disclosure of entity's reportable segments [text block] |
| Description of factors used to identify entity's reportable segments |
| **...** |
| Disclosure of geographical areas [text block] |
| Disclosure of geographical areas [abstract] |
| Disclosure of geographical areas [table] |
| Geographical areas [axis] |
| Geographical areas [member] |
| *France* |
| *Germany* |
| *Mexico* |
| *Poland* |

Illustration 28.   Members for geographical areas added to an axis

### 3.4.5    Validation

After an extension is created, it should be validated against the XBRL 2.1 Specification, regulator-specific rules and the rules defined in the Global Filing Manual.   Most software tools provide a level of validation and should support any automatic validation already present when editing an extension.   The extension should not have any validation errors at an XML, XBRL 2.1 and XBRL Dimensions 1.0 level.   Some tools provide an option to validate a taxonomy (or extension) against Financial Reporting Taxonomy Architecture (FRTA) rules.   This can be useful when checking the consistency of the extension but FRTA compliance is not a requirement.   There are a number of FRTA rules that the IFRS Taxonomy does not follow and consequently, this will affect the FRTA validation of an extension.   A number of software tools support visualisation of created extensions which can be helpful when performing checks against the structure of an entity's financial statements.

## 3.5    Creating an instance document

After an entity-specific IFRS Taxonomy extension has been created, preparers can use the extension to provide facts as a basis for an instance document.

### 3.5.1    Reported facts

The facts reported in an instance documents can be either numeric (monetary, decimal, shares, etc.) or non-numeric (string or escaped content, for example XHTML).   Specific facts can also be a data type.   Table 13 (below) contains examples of facts reported for concepts with distinct types.

Table 13.   Examples of numeric and non-numeric facts reported in an instance document

| Numeric / non-numeric | Concept | Reported fact |
|---|---|---|
| numeric (monetary) | Interest income | *595,000* |
| non-numeric (string) | Legal form of entity | *Incorporated in the State of Delaware USA, on 6 February 2001, the IFRS Foundation is a not-for-profit corporation based in London.* |

XBRL does not allow monetary facts to be scaled.   For example, it is not possible to report *EUR 6,000,000* as *EUR 6* and then disclose separately that the facts disclosed are reported in millions.   For numeric values, preparers should input the value without scaling. For example, if the financial statements are expressed in thousands and the position *Revenues* states *100*, the value *100000* should be entered into the instance document.

Preparers should be aware of the credit/debit and negated label conventions used for the IFRS Taxonomy, which should also be used for entity-specific extensions.   For example, for the concept *Cost of sales* the reported fact value should be positive because a balance attribute is assigned to debit.

Negated label conformant tools can represent facts as negative numbers (because a negated label is assigned in the presentation linkbase).   An explanation of negated labels is provided in section 2.3.12 (on page 23).

### 3.5.2    Context of the reported facts

Each reported fact should refer to a context via a *contextRef* which links to the context ID.   The period information (for both *instant* and *startDate/endDate*) should follow the XBRL 2.1 Specification and should be expressed as *YYYY-MM-DD*.   The IFRS Taxonomy defines default members for each of its axes.   When reporting facts for the default member, the scenario element should be empty (the fact should be reported in a base non-dimensional context).

### 3.5.3    Units for numeric facts

Each reported numeric fact should refer to a unit via a *unitRef* which links to the unit ID.

### 3.5.4    Accuracy of reported numeric facts

XBRL enables the accurate expression of reported numbers.   This is achieved by using the precision or decimals attribute of the reported numeric facts.   Preparers should use the decimals attribute to express a more intuitive accuracy than is possible with the precision attribute.   The decimals attribute shows the degree to which numbers have been rounded.   Table 14 (below) provides recommendations on the value of decimals attributes, according to the required accuracy of the numbers.

Table 14.   Example use of the decimals attribute on numeric facts

| Numbers | Value of decimals | Example |
|---|---|---|
| Rounded to thousands | (3) | 12 000 |
| Rounded to millions | (6) | 45 000 000 |
| Rounded to two decimal places | 2 | 139 034.17 |
| Exact numbers | INF | 1.2645 |

### 3.5.5    Validation of an instance document

Once created, instance documents should be validated against the XBRL 2.1 Specification, regulator-specific rules or the rules defined in the Global Filing Manual.   A number of tools are able to validate data types whilst the facts are being entered which would, for example, make it impossible to report a string for a monetary concept or allow a duration context to be assigned to an instant concept and vice versa.

Calculation validation should reveal inconsistencies in the reported numbers in the context of the calculation linkbase and the assigned accuracy (decimals) of the reported numeric facts, though a concept may form part of two or more calculation hierarchies. If all calculations in a given context are valid, then the calculation errors are not reported. Some calculation errors cannot be resolved without inserting values that are not reported in the financial statements. In such cases the calculation errors should be left and new values should not be inserted.

Calculation linkbases do not support cross-context validations. It is not possible to validate a calculation of combined flows and stocks.

As a final step, checks against financial statements should be conducted to ensure that all facts from the financial statements have been tagged properly and are included in the instance document.

# 4 Extender's Guide

## 4.1 Introduction

The main objective of creating IFRS Taxonomy extensions is to increase the usability of the IFRS Taxonomy but without compromising its quality or structure, by avoiding inconsistencies in the structural comparability of these extensions. This section provides guidance to those developing IFRS Taxonomy extensions for the purpose of receiving financial information in XBRL. Entity-specific extensions are covered in section 2 Preparer's Guide (page 27). When creating extensions, extenders are also advised to read section 1 IFRS Taxonomy Architecture (page 9) and to consult the IFRS Foundation XBRL Team.

Creating an IFRS Taxonomy extension has two key advantages for receiving institutions. First, it reduces maintenance costs when making updates following changes in IFRSs. Secondly, if more entities use the IFRS Taxonomy – even if by extending it - this then provides greater interoperability and comparability of financial information, and therefore increases transparency in financial markets.

As well as preparers, other parties interested in building IFRS Taxonomy extensions include:

- national and regional supervisors and regulators, statistical offices, tax agencies, central banks;

- commercial banks;

- jurisdictions.

Some examples of IFRS Taxonomy extensions include:

- Reuse of a single IFRS Taxonomy concept in a non-IFRS report, for consistency and to reduce the reporting burden. For example, the concept *Revenue* from the IFRS Taxonomy could be used in a tax form to which an IFRS financial report is attached, in order to keep both reports consistent.

- Creating a new hierarchy for a specific purpose. For example, a statistical institution could provide its own view on the structure of the Statement of financial position adjusted to statistical needs. In such a case, both the IFRS Taxonomy concept and the extension concept may be mixed in the new hierarchy.

- Adding a new disclosure that is common under IFRSs for a particular region or industry. For example, disclosure of *Financial liabilities held for trading* with the specific breakdown for financial institutions in Europe.

- Detailing an existing IFRS disclosure. For example, providing a set of common classes for *Property, plant and equipment* within a specific industry.

- Adding a non-IFRS disclosure that is required by a local GAAP to an IFRS financial statement. For example, including concepts for *Management report* from a local GAAP taxonomy.

- Creating entry points which are common for a particular industry or region. For example, excluding *Statement of cash flows, indirect method* from financial statements because of local regulations.

- Reusing only part of the IFRS Taxonomy for a specific reporting purpose. For example, selecting only disclosures related to financial instruments in order to report explanatory disclosures for financial institutions to a central bank.

- Including the IFRS Taxonomy in a comprehensive governmental taxonomy framework and using it as base for financial information.

## 4.2 Scenarios for creating an extension

Generally there are two types of reporting environments – open reporting cycles and closed reporting cycles. The IFRS Taxonomy can be used in both of these reporting environments.

### 4.2.1 Open reporting cycle

The IFRS Taxonomy is most commonly used in open reporting cycles. In this scenario the receiving institution provides a taxonomy (for example the IFRS Taxonomy) which the preparer may extend. The preparer then reports back to the receiving institution with the instance document, which refers to the preparer's extension, which in turn refers to either an entry point or directly to the taxonomy provided by the receiving institution.

An important aspect of an open reporting cycle is that both the instance document and the extension are transmitted. This requires the validation of both the instance document and the extension DTS by information systems.
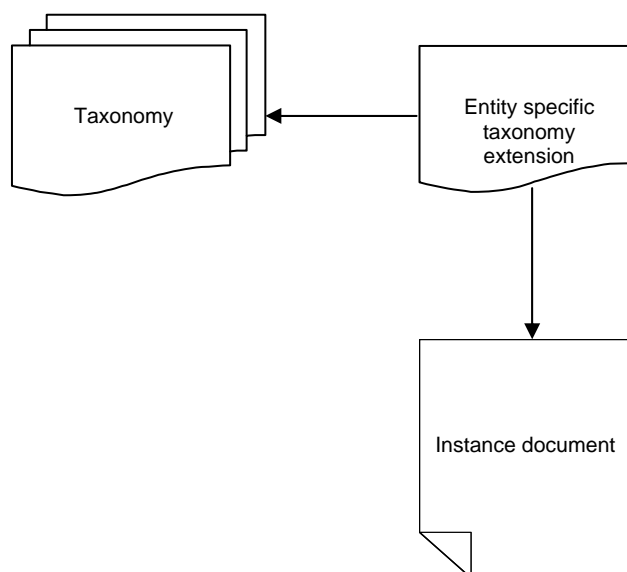
Illustration 29.   An open reporting cycle

### 4.2.2 Closed reporting cycle

In a closed reporting cycle, the data structure of the report is closed and cannot be amended by the preparer. In this scenario the receiving institution provides a taxonomy that cannot be extended by the preparer. The preparer therefore reports back to the receiving institution with only the instance document.
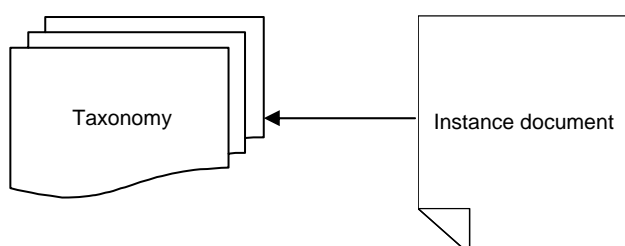
Illustration 30.   A closed reporting cycle

Closed reporting cycles are often used for template and form-oriented reporting such as the reporting of tax returns or statistical forms.

In both open and closed reporting cycles, the extension and the instance document (in an open reporting scenario) or the instance document alone (in a closed reporting scenario) may be based directly on the IFRS Taxonomy or its extension.

### 4.2.3 Reuse of IFRS Taxonomy concepts vs. reuse of the entire IFRS Taxonomy

For existing extensions to the IFRS Taxonomy, there are two methods most commonly in use:

### 4.2.3.1 Reuse of IFRS Taxonomy concepts

This approach is based on the selection of reusable concepts from the IFRS Taxonomy, extending them where required, and then using them in a specific reporting scenario. The reporting scenario does not have to be IFRS-orientated. For example, the concept *ifrs:Revenue* can be reported in an IFRS-based financial statement, but also in a tax form sent to a local tax authority. In such a case,

the local tax authority extension may import the IFRS Taxonomy schema and concepts (and possibly also the reference and label linkbases) and reuse the concept *ifrs:Revenue* within their reporting context. This may include the addition of the *ifrs:Revenue* concept to their own linkbase structures.

> Generally in such scenarios the linkbases from the IFRS Taxonomy are not reused; instead extenders provide their own linkbase structures. This may depend on how many IFRS defined concepts are being reused.

### 4.2.3.2    Reuse of the entire IFRS Taxonomy

This approach is based on reusing the entire IFRS Taxonomy.   In such cases, extenders may provide additional common practice details for a specific disclosure, or they may add new disclosures to those provided by the IFRS Taxonomy.   Generally, the reuse approach is followed when reporting financial statements as a whole, in XBRL.

> When following the reuse approach extenders should note that there is no defined best practice for the modularisation of reused and amended IFRS Taxonomy linkbases.   For this reason extenders are advised to create their own linkbases copying IFRS Taxonomy hierarchies into their specific ELRs (but continuing to refer to the IFRS defined concepts from the core schema).

## 4.3    Developing an extension

The process for developing IFRS Taxonomy extensions depends on the scope of the extension however, extenders should be aware of several considerations:

- Extenders must always import the IFRS Taxonomy core schema and reuse as many IFRS Taxonomy concepts as possible.

- When reusing IFRS Taxonomy ELRs or structures, a learning and mapping stage similar to the one discussed in section 3.2 (page 28) should be conducted to identify relevant concepts and structures for reuse.

- When defining the time line for developing and maintaining an extension, the IFRS Foundation XBRL Team's time line for developing and updating the IFRS Taxonomy should be taken into consideration.   The IFRS Foundation XBRL Team's time line is aligned with the IASB's time line for developing IFRSs, hence the release of one IFRS Taxonomy each year, followed by interim releases during the course of the year for interim IFRSs.   Future IFRS Taxonomy releases will reflect new IFRSs as issued by the IASB, and will also remove standards that are no longer applicable (for example, IAS 14 was removed from the IFRS Taxonomy 2009).

- When defining the time line for developing multi-lingual labels for an extension, the IFRS Foundation XBRL Team's time line for releasing multi-lingual label linkbases should be taken into consideration.   This will avoid duplication of effort and potential inconsistencies in taxonomy translations.

- The IFRS Taxonomy versioning report (described in section 2.4.1 on page 26) supports the automation of migrating to a new IFRS Taxonomy release.

## 4.4 The physical composition of an extension

Generally, an IFRS Taxonomy extension should be modularised in the same way as the IFRS Taxonomy (ie it should be aligned with the IFRS Taxonomy folder structure). However this depends on the exact nature of the extension.

> Extenders operating in a closed reporting environment may define their own entry points to restrict the filing to instance documents only.

Modularised IFRS Taxonomy extensions may follow the single schema approach (as described in section 2.3.5 on page 18), therefore all concepts for the extension may be placed into a single extension-specific schema file. Extenders operating in a closed reporting scenario may remove unused IFRS Taxonomy files from the folder structure.

### 4.4.1 File names and file and folder structures

File names and file and folder structures for IFRS Taxonomy extensions should follow the approach used in the IFRS Taxonomy as much as possible. Extension and entry point schemas should be placed on either the level of the IFRS core schema or in a separate extension-specific folder. Extension linkbases should be placed in a separate extension-specific folder on the IFRS folder level.

### 4.4.2 Addition and reuse of concepts

Extenders should evaluate concept equivalence (from the accounting perspective) when reusing IFRS concepts in scenarios outside of IFRS financial reporting, for example, using the IFRS Taxonomy in a tax reporting scenario. In such cases, extenders should ensure that the accounting content of the IFRS Taxonomy concept accurately reflects the concept for that particular reporting scenario.

### 4.4.3 Addition and reuse of labels

When constructing labels, extenders should follow the guidelines in Appendix C: Style Guide. Extenders may merge existing translations of the IFRS Taxonomy with translations of their extension-specific concepts. Extenders should consider the IFRS Foundation XBRL Team's time line for translation to ensure consistency when translating IFRS concepts.

### 4.4.4 Addition and reuse of references

Extenders should not prohibit or override IFRS references however, references may be added to IFRS Taxonomy concepts. Extenders should be aware of the single reference resource approach used in the IFRS Taxonomy, which should also be followed for IFRS Taxonomy extensions.

> The single reference resource approach ensures that only one reference resource is provided in the taxonomy for each item of accounting literature. For example, if concept A and concept B both refer to IAS 1.67, only one reference resource is used in the taxonomy (in this case, the reference to IAS 1.67).

### 4.4.5 Addition of linkbases

Extenders should follow the guidelines in the section 3.4.4 (on page 34) when creating extension-specific linkbases.

### 4.4.6 Addition and reuse of ELRs

IFRS Taxonomy extensions should follow the guidelines in section when adding or reusing ELRs. Extension-specific names and URI parts should be used when defining new ELRs.

> Modularised IFRS Taxonomy extensions should use unchanged presentation, definition and calculation linkbase structures. If changes are necessary, new linkbases that copy and amend the structure should be created. For example, to create a Balance Sheet modular linkbase, an extender may create a new ELR and copy the existing relationships from the *Statement of financial position, current/non-current*, thus creating a new linkbase.

## Appendix A: XBRL Fundamentals

This Appendix is an introduction to the basics of XBRL.   It provides explanations of the major terms associated with XBRL.   The target audience is individuals who would like to understand more about XBRL code and some of the problems that are tackled in order to allow computers to process and communicate accounting data meaningfully.   Readers with questions of a more generic nature such as: how did it all start?, who owns XBRL? or what are the benefits?, should visit the XBRL International website.
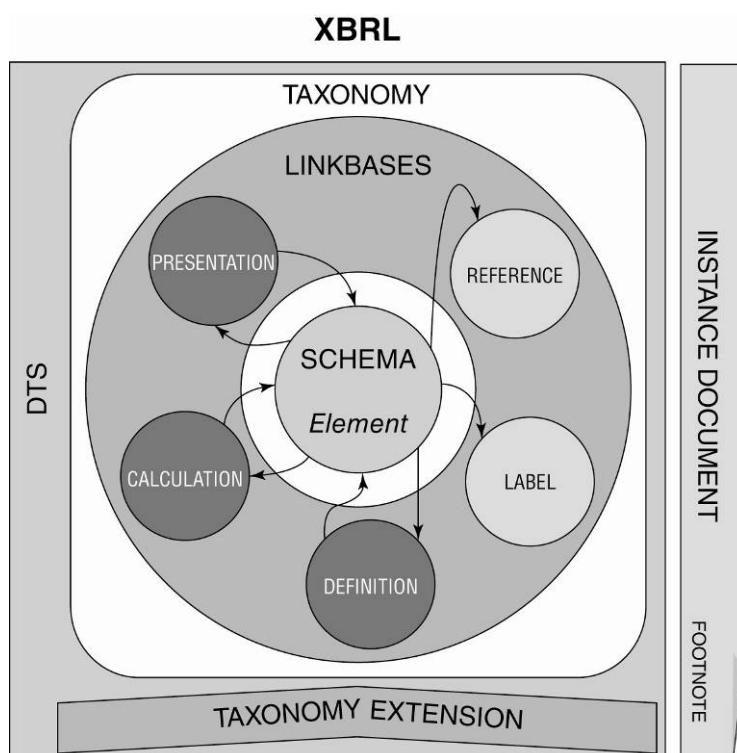


Illustration 31.   XBRL architecture

## XBRL

XBRL stands for eXtensible Business Reporting Language.   It is an XML (Extensible Mark-up Language) dialect developed for business reporting purposes.   In XBRL, financial data is tagged so that it can be easily understood and processed by computers, for example *<Assets>1000</Assets>*.   The word *Assets* together with brackets < and > is called a **tag**.   XML distinguishes opening tags: *<...>* and closing tags: *</...>*.   Between the tags there is a value.   What computers understand from the example above is that something called *Assets* has the content 1000.   But how do they know what *Assets* are?

This is where XBRL uses computer scientists' concept of **metadata**.   In brief, metadata is data about data.   For example, a programmer has to explain to a computer how it should understand the term *assets* and what kind of values should be assigned to this concept.     From the accounting perspective, *Assets* should have a monetary value (type attribute) and its balance nature is debit.   This refers to the basic rule of double entry accounting where *Assets* and *Expenses* have a normal balance of a debit while *Equity*, *Liabilities* and *Revenues* have a normal balance of a credit.   Another characteristic of *Assets* is that they represent resources available to an entity at a particular point in time.   They appear on the balance sheet which is a snapshot of an entity's financial position at a specified date.   The opposite of a resource presented at a point specified in time is a **flow** which occurs during a period.   The description above shows that information for at least three characteristics should be provided to a computer in order for it to understand *<Assets>* in an accounting manner.

Of course, thousands of hours spent on developing XBRL were not devoted to simply telling computers what assets are.   In accounting there are many concepts that could be described using XBRL.   Moreover, there are different regulations concerning financial reporting which means that the definition of *Assets* under International Financial Reporting Standards (IFRSs) may differ from the one provided by a national set of generally accepted accounting principles (GAAP).   Therefore, there is a need to describe interactions between financial concepts for each regulation of GAAP.   This is to define whether or not there is any relation between *Assets* and, for example, *Receivables* and if there is, how this looks in terms of accounting knowledge and how to create references for elements to express the accounting standard to which they are applicable.   To do that, XBRL uses technology called **XML Linking (XLink)**.

To relate the information provided above to Illustration 31 (above) it should be stated that:

- values between tags (for example *<Assets>1000</Assets>*) are found in instance documents;

- information on what *Assets* are and how a computer should treat them is provided in taxonomy schema files;

- relationships are described in taxonomy linkbases which are segregated into different categories depending on what is described and how it is done.

The following sections discuss each of the elements of the diagram in more detail.

## Taxonomy

The word taxonomy is derived from the Greek verb *tassein* which means *to classify*, and the noun *nomos* which means law or science. When combined and interpreted word for word it means classification of some kind of knowledge.   Initially, it was used in science to classify living things, but over time its meaning has widened and it is currently applied to either the classification of things in general or rules governing classification.   Frequently, taxonomies are given hierarchical structures or are built in the form of networks, therefore as well as the elements they also represent relationships.

Virtually everything can be a subject of classification under a taxonomy.   The most common example of taxonomy classification is the classification of living creatures.   The root element (the most general one) is *organism* since all living things are of this group. Its first child is *domain* which in turn is a parent of *kingdom* whose subgroup is *division*, which is divided into *classes* and so on.   One important characteristic of taxonomies is that children (lower level elements) may have many parents (upper level elements).   In some classifications, spiders could be categorised as arachnids, in others as eight-legged creatures and in another as non-flying organisms.

Now, how does this term apply to XBRL?   In XBRL, a taxonomy consists of the core part which is a **schema** (or multiple schemas) and **linkbases**.   If compared to the body of a crab, the schema would be its head and trunk (where all the major organs are situated) and the linkbases would be its limbs.   Of course, a schema could exist without linkbases in the same way that a crab could theoretically live without limbs, but in order for a crab to survive and for the taxonomy to be optimal all parts of the body are necessary.   In an XBRL taxonomy the schema is the part that contains definitions of elements (such as *assets*) whereas linkbases provide relationships between them.   In the example of the classification of living things, the explanation of what is an *organism*, *domain*, *kingdom*, *division* and *class* would be placed in the schema while the hierarchical relationships between them would appear in the linkbases.

## Schema

An XBRL schema stores information about taxonomy elements (their names, IDs and other characteristics).   It can be regarded as a folder where an unstructured list of elements and references to linkbase files is held.   From the technical point of view, the XBRL schema is an XML schema tailored to particular business and financial reporting needs.   The schema itself represents a set of unrelated elements.   Schemas are created using XML schema technology and their physical form is a file with an extension *.xsd*. Together with linkbases it creates an XBRL taxonomy.

The root element (the most general one) of all is schemas *<schema/>*.   The same element may be defined in multiple schemas, each of which would assign it a different meaning (for example in various national GAAP the concept *Assets* may be defined differently). Therefore to distinguish between the elements we use **namespaces**.   Namespaces look like Internet addresses (for example *http://xbrl.ifrs.org/ifrs/*) but they are not.   The reason for using names that look like Internet *www* locators (URIs) is that they are unique and therefore are appropriate to identify the elements that are unique to a schema.   Instead of using the full address a prefix can be assigned for this.   For example, if a taxonomy defines that *ifrs=http://xbrl.ifrs.org/ifrs/*, then instead of quoting the entire URI before an element name, *ifrs* can be used (for example *<ifrs:Assets/>*).

To summarise, the main purpose of XBRL schemas is to provide the computer with information on how it should represent and process accounting terms.   As explained in the XBRL section, computers do not have built-in accounting knowledge so they have to be taught what a particular concept means and what its characteristics are.

## Element

An element is a business concept (such as *assets*, *liabilities*, *income*, etc) presented to a computer in such a way that the computer can understand the main characteristics of the concept.   Elements that are defined in a schema are built to convey accounting meaning to computers.   To achieve this, elements that appear in a schema are defined and are constructed according to a specific set of rules.   The example below illustrates the simplified definition of the element *assets* (prefixes have been omitted).

```
<element name="Assets" id="ifrs_Assets" periodType="instant" balance="debit" abstract="false" substitutionGroup="item"
type="monetaryItemType"/>
```

Illustration 32.   Element definition

The most important parts provided in this example, from a business perspective, are **name**, **type**, **balance** and **periodType**.

The **name** component assigns a unique name to an element.   To distinguish between elements defined in different schemas, XBRL uses namespaces and their prefixes.   In order for computers to process these names quickly and efficiently, rules are set to establish a standard format for these names.   For example, the use of spaces is not allowed, consequently *Cash and cash equivalents* becomes *CashAndCashEquivalents*.   Also, large taxonomies such as the IFRS Taxonomy obey specific rules for naming and labelling to ensure consistency within the schema.   A name must meet several criteria and cannot contain spaces and other characters that are illegal in XML.   XML distinguishes between upper case and lower case, so *assets* and *Assets* are different elements.   Apart from the name, for an accountant, the concept *Assets* is associated with a set of characteristics that are defined by other components.

**periodType** relates to the accounting distinction between flows and resources.   Because it is natural to provide a value for *Assets* for a particular date and time (usually the end of the reporting period), the periodType for this concept would be set to *instant*.   Flows such as *Payments*, *Revenue* or *Profit* would have the periodType set to *duration*.

Another accounting characteristic that computers have to learn is the **balance nature** of an element.   According to the basic rule of double entry accounting, *Assets* and *Expenses* have normal balances in debit, while *Equity*, *Liabilities* and *Revenues* have normal

balances in credit.   Therefore in order to increase an *Asset* or *Expense* the account is debited, and to decrease an *Asset* or *Expense* the account is credited.   To reflect this in XBRL, each element (or more precisely, each item) falls into one of these categories and has a monetary value that contains in its definition a specification of whether it has a normal **debit or credit** balance.   This requirement was introduced due to the need for comparable data and to be able to perform accounting calculations.   For example, the element *Cost of sales* (an expense) could be assigned a negative value and added to *Revenue* (credit) in order to calculate *Profit*, or it could be a positive figure which when subtracted from *Revenue* would give the same result.

| | No balance attribute assigned | | | | Balance assigned | Attribute |
|---|---|---|---|---|---|---|
| Revenues | + | 1,000 | + | 1,000 | + | 1,000 (Cr) |
| Cost of sales | - | 1,200 | + | (1,200) | - | 1,200 (Dt) |
| Profit (loss) | = | = | = | (200) | = | (200) (Cr) |

Illustration 33.   Example use of a balance attribute with calculations

Although using a balance attribute is useful and straightforward in the case of Balance Sheets or Income Statements, it creates difficulties when calculating Cash Flows for elements which do not necessarily obey credit/debit rules.   There are new technologies such as formulae and functions that make XBRL more programmable and which are therefore likely to help resolve these issues.

Another important characteristic of an element that has to be defined is its **type**.   In financial reports, companies present information in the form of figures with monetary units (eg £100), numbers (eg *number of employees*), percentages (eg interest rates), strings (regular text) and others.   To help computers understand how to treat each of these, XBRL developers use (with small adjustments) XML built-in types.   By doing so, computers can check the validity of data entered according to the type and can also make calculations.   The most common types that appear in financial statements are *monetaryItemType*, *stringItemType* and *decimalItemType*.

There are some concepts in business reporting that are expressed in XBRL using elements whose definitions and constructions differ significantly from those presented above.   They are called **tuples** and were designed to express, for instance, tables with an unknown number of rows or columns.   A simplified example is provided below (prefixes have been omitted):

```
<element
        id="Deposit" name="Deposit" substitutionGroup="tuple" nillable="true">
                <complexType>
                        <complexContent>
                                <restriction base="anyType">
                                        <sequence>
                                                <element ref="Description" />
                                                <element ref="Amount" />
                                                <element ref="EffectiveInterestRate" minOccurs="0" />
                                        </sequence>
                                        <attribute name="id" type="ID" use="optional" />
                                </restriction>
                        </complexContent>
                </complexType>
</element>
```

Illustration 34.   Tuple definition

The first feature that distinguishes tuples from regular elements (items) is that their substitutionGroup value is set to *tuple* (in contrast to the previous example where this attribute was assigned the value *item*).     Secondly, the definition of the element *Deposit* lacks many of the components described previously, such as balance attribute, periodType or type.   Instead, this element contains other elements which are, in the example provided, *Description*, *Amount* and *EffectiveInterestRate*.   The definition content that a tuple may hold includes additional information concerning the order of elements contained and their minimum number of occurrences (*minOccurs*) and maximum number of occurrences (*maxOccurs*).   Unlike regular items, tuples (and the items that they contain) may appear in instance documents several times in the same context.   Relating this to the example above, the reporting entity may define a list of deposits by providing the *Description*, *Amount* and *Effective Interest Rate* of each.

Once elements and their features are defined in a schema, taxonomy developers face the task of providing computers with knowledge about the relationship between elements and resources.   These constitute components of linkbases.

## Linkbase

As described in the taxonomy section (page 44), linkbases are the components of a taxonomy that provide information about relationships between elements and that link elements with specified external resources.   Therefore, in addition to defining XBRL elements, the creation of an XBRL taxonomy, regardless of its purpose, involves performing the following actions:

- labelling elements in specified languages in order to make the taxonomy readable;

- referencing elements to the external resources that justify their existence and explaining, defining or providing examples of the use of the particular financial concept;

- defining relationships between elements according to different criteria.

Illustration 31 (page 43) presents how linkbases relate to the taxonomy schema.   There are uni-directional arrows to the **label** and **reference** linkbases and bi-directional arrows to the **presentation**, **calculation** and **definition** linkbases.   The actions listed in the bullet points above are the five types of linkbases represented in the diagram.   Label and reference linkbases connect elements to external resources, while presentation, calculation and definition linkbases provide descriptions of relationships between elements.

Linkbases use two XML technologies.   The first is known as **XLink (XML Linking Languages)** which, as its name suggests, allows for the creation of hyperlinks in XML documents.   The second is **XPointer (XML Pointing Languages)** which helps to localise specific parts of XML and XBRL documents (eg element definitions in schemas).   In order to create a relationship, it is necessary to point to elements or resources and to define the type of relationship.   A simplified example of a hierarchical relationship from a presentation linkbase is provided below.

```
<loc xlink:type="locator"
xlink:href="schema.xsd#Assets"
xlink:label="Assets_Locator"/>

<loc xlink:type="locator"
xlink:href="schema.xsd#CurrentAssets"
xlink:label="CurrentAssets_Locator"/>

<presentationArc xlink:type="arc"
xlink:arcrole="http://www.xbrl.org/2003/arcrole/parent-child"
xlink:from="Assets_Locator" xlink:to="CurrentAssets_Locator"/>
```

Illustration 35.   Locators and arcs

First, a **locator** (*<loc>*) is created with the label *Assets_Locator*.   The locator refers to the element that is defined in the file schema *.xsd* and which has the ID attribute *Assets*.   This action is then repeated for the element *CurrentAssets*.   The last three lines describe the relationship between the located elements by describing the type of connection.   An **arcrole** attribute defines the type of relationship, which in this particular case is *../parent-child* (hierarchical order).   The attributes *to* and *from* refer to locators.   In the example provided, the *<CurrentAssets>* is a child of *<Assets>*.

To summarise, linkbases provide descriptions for relationships between elements by localising them and defining the type of relationship using the arcrole attribute.   Each of the five linkbases, (presentation, calculation, definition, reference and label), contain definitions of different types of relationships.

## Presentation Linkbase

Generally, business reports are prepared in the form of statements (usually represented by hierarchies), tables or other structures. The presentation linkbase stores information about relationships between elements in order to correctly organise the taxonomy content.   This allows the elements to be arranged in a structure that can appropriately present the hierarchical relationships according to accounting standards.

These groupings can be performed in many ways.   For example, a typical Balance Sheet contains *Assets*, *Equity* and *Liabilities*.   *Assets* consist of *Current assets* and *Non-current assets*.   *Current assets* are split into *Inventories*, *Receivables* and so on.   The presentation linkbase uses a parent-child relationship to organise elements in this way, which helps users to find the concepts that they are interested in.

The main drawback of a tree-like (hierarchical) structure in a presentation linkbase is that it only allows the presentation of flat lists of elements however, financial statements contain more sophisticated reports such as *Changes in equity* or *Movements in property, plant and equipment*.   The XBRL Consortium is currently working on rendering solutions that will allow such reports to be created automatically.

## Calculation Linkbase

The purpose of the calculation linkbase is to improve the quality of an XBRL report.   It contains definitions of basic validation rules, which apply to all instance documents that refer to a particular taxonomy.   A hierarchical calculation linkbase sorts all monetary elements so that lower level elements sum up to or are subtracted from one another, thereby creating the upper level concept. The sign of the relationship depends on the weight attribute that is assigned to the arc connecting two elements.   An example is provided overleaf.

```
<calculationArc xlink:type="arc"
xlink:arcrole="http://www.xbrl.org/2003/arcrole/summation-item"
xlink:from="GrossProfit" xlink:to="RevenueTotal"
order="1" weight="1" use="optional"/>

<calculationArc xlink:type="arc"
xlink:arcrole="http://www.xbrl.org/2003/arcrole/summation-item"
xlink:from="GrossProfit" xlink:to="CostOfSales"
order="2" weight="-1" use="optional"/>
```

Illustration 36.   Calculation linkbase arcs

The example shows that there are two calculation arcs providing details concerning the relationships between *Gross profit*, *Revenue* and *Cost of sales*.   In the Income Statement, *Gross profit* is the difference between *Revenue* and *Cost of sale*, therefore the weight attribute value *1* has been assigned to the arc connecting *Gross profit* and *Revenue*, and *-1* between *Gross profit* and *Cost of sales*.

There is a difference between calculation and presentation linkbases because the total element that is the summation of all others usually appears at the bottom of a financial statement, whereas in the calculation linkbase it must be placed as the top concept.

| Presentation | Calculation | |
|---|---|---|
| Assets (abstract) | Total assets | |
| Non-current assets | Non-current assets | +1 |
| Current assets | Current assets | +1 |
| Total assets | | |

Illustration 37.   Presentation and calculation linkbase hierarchies

There are two major rules concerning calculation relationships in XBRL.   The first rule is that it is not possible to carry out operations on elements that have different periodType attributes.   This is often called the cross-context rule and relates to defining some elements as *For period* (*duration*) and others as *As of date* (*instant*).   For example, concepts that appear on the Balance Sheet are *instant*, which means that their value is presented for a specified day, while elements in the Income Statement or Statement of Cash Flows are *duration* because they represent actions that took place over a period of time.   The problem emerges, for example in the *Statement of changes in equity* or *Movements in property, plant and equipment*, when *instant* elements mix with *duration* elements.   The solution to this problem is a formula linkbase that provides taxonomy developers with more functions than simply addition or subtraction.   The second rule, the double entry accounting rule, requires XBRL taxonomy developers to define the credit/debit nature of monetary elements that appear in the Balance Sheet and Income Statement.   This rule does not allow elements with opposite balance attributes to be added; they must be subtracted.

## Definition linkbase

The definition linkbase provides taxonomy developers with the opportunity to define different kinds of relationships between elements.   There are four standard types of relationships supported by definition linkbases.

The first type of relationship is referred to as **general-special**.   It distinguishes between concepts that have more generic or more specific meanings.   For example, *Zip code* is the US representation of *Postal code*, which is used worldwide.   Therefore in order to indicate this relationship, taxonomy developers define *Postal code* as a general term to which there is the more specialised concept *Zip code*.

The second available relationship type is **essence-alias**.   It is used by taxonomy developers to indicate that two concepts have similar meaning.   For example, some airlines may want to use the term *Planes* to describe the main component of their *Property, plant and equipment*, while other airlines may prefer the term *Aircraft*.   To state that the meaning of these two is the same and that they can be used interchangeably, taxonomy developers may connect them using an essence-alias arcrole.

The third standard type of relationship is **requires-element**.   As its name indicates, taxonomy developers use it to force instance creators to enter the value of an element if they provide the content of another.   For example, a regulator may require additional disclosures on a particular component of *Assets* if it appears on the Balance Sheet.   In order to achieve this, the definition linkbase defines a requires-element relationship between them (for example, *Property, plant and equipment* and *Disclosure of property, plant and equipment*).

The fourth relationship is **similar-tuples**.   This relationship resembles the essence-alias relationship except it is applys specifically to tuples.   It connects two tuples that are equivalent to each other in terms of definition (either documentation from the label linkbase or reference in the reference linkbase) but which differ from an XML perspective, ie they do not have identical content models (for example, they contain different elements).   One of the reasons for introducing this type of relationship was the prohibition of schema redefinition which disallows changes in the tuple content model, thus creating issues for taxonomy extensions.

## Reference linkbase

Financial concepts that appear in business reports often originate from regulatory documents issued by authorities.   For example, the IFRS Taxonomy describes financial reports prepared according to the annual IFRS Bound Volume, therefore elements defined by this taxonomy refer to the specific terms and concepts explained in IFRSs.   For this reason, a taxonomy is often provided with a reference linkbase that presents relationships between elements and external regulations or standards; the alternative is to include documentation in the label linkbase.   This helps instance creators and users to understand the intended meaning of each element

and provides support for its inclusion in the taxonomy.   The reference linkbase does not contain the full text of the regulations; it simply refers to the source document by identifying its name and indicating the relevant paragraphs and clauses.   This connection is created using a **concept-reference arcrole**.   There are several types of references that can be provided for each element.

```
<reference xlink:type="resource"
        xlink:role="http://www.xbrl.org/2003/role/ disclosureRef"
        xlink:label=" res_12">
                <ref:Name>IAS</ref:Name>
                <ref:Number>7</ref:Number>
                <ref:Paragraph>31</ref:Paragraph
</reference>
<link:loc   xlink:href="../../ifrs-cor_2013-03-28.xsd#ifrs_InterestReceivedClassifiedAsOperatingActivities"   xlink:label="loc_21"
xlink:type="locator"/>
<link:referenceArc   xlink:arcrole="http://www.xbrl.org/2003/arcrole/concept-reference"   xlink:from="loc_21"   xlink:to="res_12"
xlink:type="arc"/>
```

Illustration 38.   Reference linkbase resources

The example above indicates reference for *Interest received, classified as operating activities*.   It provides a reference to a document that explains how and where the element should be presented in terms of its placement and labelling.   *IAS 7, paragraph 31* communicates that the concept *Interest received, classified as operating activities* exists.   XBRL also allows elements to have other types of references assigned to them which contain examples, commentaries, etc.

## Label linkbase

In order for XBRL to be used as a worldwide standard for electronic business reporting, XBRL taxonomies need to be able to present business data in different languages.   Therefore it is important that when elements are created they can be assigned labels in different languages and for different purposes.   All labels are stored and linked to elements in a label linkbase.

In the label linkbase, elements are connected to labels using a **concept-label arcrole**.   Elements can be assigned to labels in different languages.   An example that describes total label definitions for the IFRS element *Assets* in English, German and Polish is provided below.   To distinguish between languages, XBRL uses the XML attribute *lang*.

```
<label xlink:type="resource" xlink:role="http://www.xbrl.org/2003/role/label"
xlink:label="ifrs_Assets_label" xml:lang="en">Total assets</label>

<label xlink:type="resource" xlink:role="http://www.xbrl.org/2003/role/label"
xlink:label="ifrs_Assets_label" xml:lang="de">Vermögenswerte, Gesamt</label>

<label xlink:type="resource" xlink:role="http://www.xbrl.org/2003/role/label"
xlink:label="ifrs_Assets_label" xml:lang="pl">Aktywa, Razem</label>
```
Illustration 39.   Label linkbase multilingual resources

Taxonomy developers may also define different labels for one element.   One of the features of XBRL is that the information about the element's period and currency is not contained within the element definition but is instead described by a context in an instance document.   In financial reporting on the other hand, many terms express the date for which they are being reported, for instance *Property, plant and equipment at the beginning of year* and *Property, plant and equipment at the end of year*.   XBRL allows different labels to be created depending on the context in which an element is used.

```
<label xlink:type="resource"

xlink:role="http://www.xbrl.org/2003/role/label"

xlink:label="ifrs_PropertyPlantAndEquipment_label"

xml:lang="en">Total property, plant and eqipment</label>
<label xlink:type="resource">

xlink:role="http://www.xbrl.org/2003/role/periodStartLabel"

xlink:label="ifrs_PropertyPlantAndEquipment_label"

xml:lang="en">Property, plant and equipment at beginning of period</label>
<label xlink:type="resource"

xlink:role="http://www.xbrl.org/2003/role/periodEndLabel"

xlink:label="ifrs_PropertyPlantAndEquipment_label"

xml:lang="en">Property, plant and equipment at end of period</label>
```

Illustration 40.   Label linkbase resource roles

## Dimensions (axes)

XBRL was originally intended as a means of expressing data in the form of business reports.   However the need to model and express more sophisticated data structures, in particular dimensional models, resulted in the development of the XBRL Dimensions 1.0 Specification (XDT) by XBRL International.   The XDT is a modular extension to the XBRL 2.1 Specification which defines the rules and fundamentals of the language.

The XDT is designed to communicate information to IT professionals who develop applications and tools intended to be XBRL-compatible.   It also assists taxonomy developers, although this is to a lesser extent.   The XDT provides a general mechanism for defining dimensional metadata and referencing it in XBRL instance documents.   The XDT introduces non-normative taxonomy distinctions into primary taxonomy components, domain member taxonomy components and template taxonomy components. The differentiation in the XDT provides an architectural framework for projects that incorporate multidimensional information into existing taxonomies.

Illustration 41 (page 50) provides an overview of the relationships between the different taxonomy components.

- Primary taxonomy components - part of the discoverable taxonomy set (DTS) of an XBRL taxonomy that has no dimensional elements (axes or tables) and provides line items;

- Domain member taxonomy components – provide hierarchical relationships between dimensions and domain members. **Typed** dimensions define syntactic constraints on the contents of segments and scenarios.   **Explicit** dimensions are those in which the XBRL items form a discrete, countable finite partition to a set of members, called a **domain**. Examples include a dimension of geographical territories, or a dimension of product lines;

- Template taxonomy - imports all domain members and line items and adds the dimensional structures (hypercubes).

Dimensional data structures
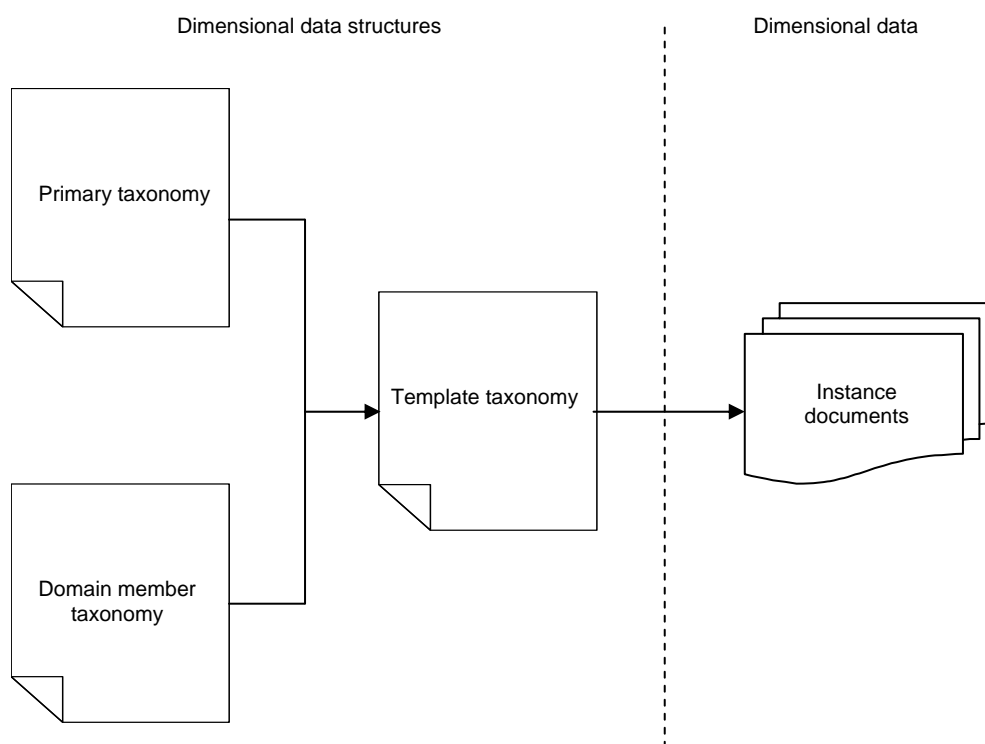
Dimensional data



Illustration 41.    Taxonomies in the XDT

Dimensional data modelling in XBRL taxonomies is provided by four arcroles for the definition linkbase:

- *all* or *notAll* (line item − hypercube)

- *hypercube − dimension*

- *dimension − domain*

- *domain − member*

Illustration 42 (page 51) outlines the use of the four arcroles.   The arcroles define which dimensions characterise a hypercube (*hypercube − dimension*), which dimensions include domains (*dimension − domain*) and which members consist of a domain (*domain − member*).   The diagram consists of elements with various substitutionGroup values.   Depending on whether an element is a hypercube, a dimension or a domain, the *substitutionGroup* value should be assigned to *hypercubeItem*, *dimensionItem* or *item*.

Line items describe business reporting concepts and are modelled in relation to other elements.   The arcroles *all* and *notAll* express the relationship between the line item and the hypercube.   *All* is used when all dimensions of the hypercube are applicable to the item.   *NotAll* is used when all dimensions of the hypercube should be excluded from the item.   The arcrole *domain − member* can also be used in primary taxonomies in order to connect the entire tree hierarchy with the hypercube.

Illustration 42.   Relationships in the XDT

The dimensional features are addressed in instance documents using segment or scenario elements in the context, thereby giving the reported 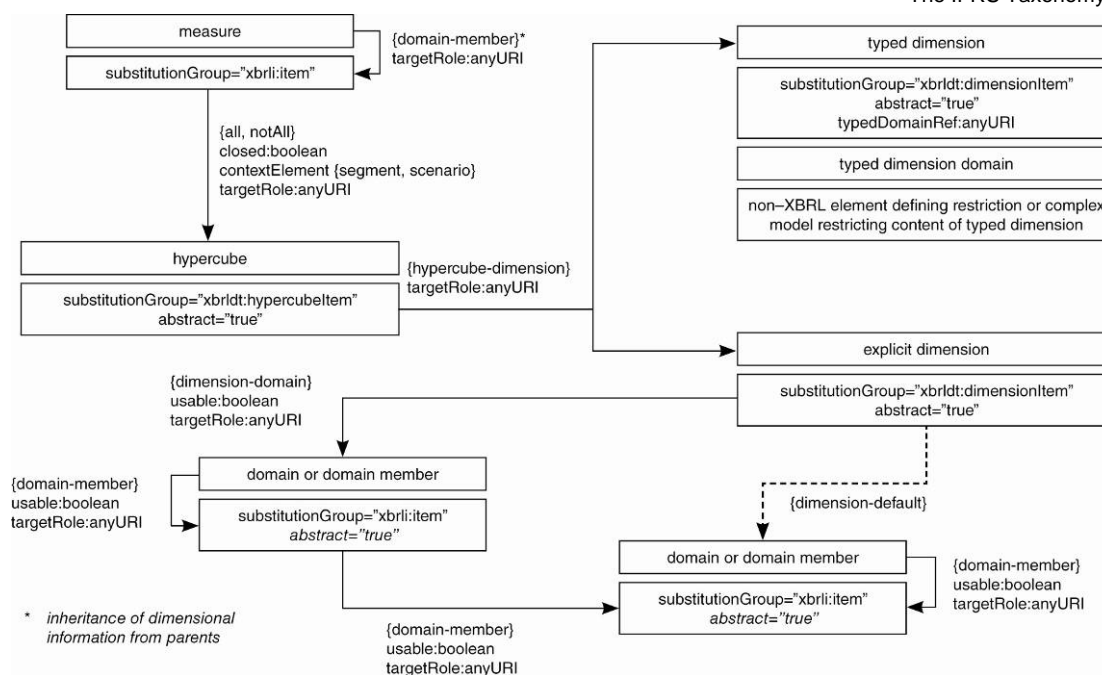facts a dimensional structure.   In the case of explicit dimensions, an instance document refers to the members or their combinations defined in the domain member taxonomies.   In the case of typed dimensions, the domain members are defined within an instance document itself and so are addressed.

## Taxonomy extension

Public taxonomies, such as the IFRS Taxonomy, define elements and the relationships between them according to particular legislation or standards.   These XBRL-described concepts allow companies to create financial statements that are valid and compliant with regulatory requirements.   However, in the diverse world of finance, companies are required to include in their business reports additional concepts (usually related to their specific area of activity or a specific reporting purpose).   XBRL, as its name indicates, allows for such extensions without the loss of data integrity.

Extending a taxonomy may involve performing the following operations:

- adding an element not described in the base taxonomy, but which is required;

- modifying the relationship between elements in terms of their order, addition or deletion.

Taxonomy extensions are built for different purposes, mainly by regulators, local authorities or simply by reporting companies. There are several rules that should be obeyed when building a taxonomy extension.   The most important one is that the extension should not physically modify the content of any of the base taxonomy files.   This is usually done by locating the base taxonomy on a website, which prevents other users from making changes to the files.

Building an extension that involves the modification of linkbases requires developers to be familiar with the *use* and *priority* attributes, and the concept of equivalency.   With these attributes extenders can prohibit a relationship (an arc) or override it.   The *use* attribute may take the values *optional* and *prohibited* (the latter implies that the relationship is not processed by a computer). The *priority* attribute assigns relationships with ranks, which informs the computer about the processing order.

## Discoverable Taxonomy Set (DTS)

A DTS contains one or more taxonomies, ie a number of schemas together with the linkbases related to them.   This term was developed as taxonomies became increasingly complicated and inter-related.   A complete set of the IFRS Taxonomy 2013 consists of over 400 files (including several schemas).   Moreover, the IFRS Taxonomy is usually discovered using another entry point schema (either a filer extension schema or a regulatory extension schema).   This entry point schema imports the IFRS core schema, which defines all elements and refers to appropriate linkbases containing presentation and calculation relationships, and also labels in different languages.

## Instance Document

An XBRL instance document is a business report in an electronic format created according to the rules of XBRL.   It contains facts that are defined by the elements in the taxonomy it refers to, together with their values and an explanation of the context in which they are placed.

| Schema | |
|---|---|
| *Element's definition:* | |
| <element | |
|     id="ifrs_**ProfitLossBeforeTax**" | |
|     name="ProfitLossBeforeTax" | |
|     type="xbrli:monetaryItemType" | |
|     substitutionGroup="xbrli:item" | |
|     xbrli:periodType="duration" | |
|     xbrli:balance="credit" | |
|     nillable="true"/> | |
| **Instance document** | |
| *Business fact* | |
| <ifrs:ProfitLossBeforeTax | |
|     contextRef="Current_ForPeriod" | |
|     unitRef="U-Euros" | |
|     Decimals="0">**661000**</ifrs:ProfitLossBeforeTax> | |
| *Unit:* | *Context:* |
| <unit id="U-Euros"> | <context id="Current_ForPeriod"> |
| <measure>iso4217:EUR</measure> | <entity> |
| </unit> | <identifier scheme="http://www.sampleCompany.com" |
| | SAMP</identifier> |
| | </entity> |
| | <period> |
| | <startDate>2004-01-01</startDate> |
| | <endDates>2004-12-31(/endDate> |
| | </period> |
| | </context> |

Illustration 43.   Relationship between a taxonomy and instance document facts, context and units

The example above states that the example company's Profit (loss) before tax for the year 2004 amounted to 661,000 EUR.   The element's definition is contained in the taxonomy schema.   The instance document assigns it a value, provides additional information about the currency in which it is disclosed, and defines a period and the entity that it refers to.

## Footnote

Footnotes appear on instance documents and provide additional information for some elements.   For example, if in a business report several concepts refer to the statement *For more information see Disclosures on assets*, it is possible to create relationships between these concepts and a footnote element containing this text.

```
<Assets id="Assets"
decimals="0" contextRef="Current_AsOf" unitRef="GBP">20000</Assets>

<link:loc xlink:type="locator" xlink:href="#Assets" xlink:label="Assets"/>
<link:footnoteArc xlink:type="arc"
xlink:arcrole="http://www.xbrl.org/2003/arcrole/fact-footnote"
xlink:from="Assets" xlink:to="AssetsFootnote" order="1.0"/>

<link:footnote xlink:type="resource" xlink:label="AssetsFootnote"
xlink:role="http://www.xbrl.org/2003/role/footnote"
xml:lang="en">For more information see Disclosures on Assets</link:footnote>
```
Illustration 44.   A footnote in an instance document

In the example above, the first lines provide the description that *Assets* reported in the current period amounted to GBP 20,000, and creates a locator that refers to this statement.   The element footnote contains the text of a footnote, and the *footnoteLink* connects the element with this reference.

## Appendix B: XBRL Glossary

**abstract attribute** – an abstract attribute appears on item definitions in schemas; its possible values are *true* and *false*; *true* indicates that the item shall not appear in instance documents; abstract elements (elements for which the abstract attribute is *true*) are intended to support the presentation of concepts in XBRL taxonomies.

*more:* XBRL Spec: Terminology; Example 51.

**arc** – according to the XBRL Specification 2.1, arcs link concepts to each other by associating their locators; they also link concepts with resources by linking the concept locators to the resources themselves; arcs are also used to link fact locators to footnote resources in footnote extended links; arcs have a set of attributes that document the nature of the expressed relationships; in particular they posses attributes: *type* (whose value shall be *arc*), *from*, *to* and *arcrole*.

*more:* XBRL Spec: Terminology; 3.5.3.9.

**arcrole attribute** – an XLink attribute that describes the meaning of resources within the context of a relationship; it may be used on *arc*- and *simple*-type elements; on arcs it determines the semantics of the relationship that is being described or, in other words, it documents the kind of relationship that the arc expresses; there is a set of standard arcroles defined for specific arcs (*labelArc*, *referenceArc*, *calculationArc*; *definitionArc*, *presentationArc* and *footnoteArc*); the value of arcrole shall be an absolute URI, (eg in the presentation linkbase on a presentationArc it is *http://www.xbrl.org/2003/arcrole/parent-child*).

*more:* XBRL Spec: 3.5.1.4; 3.5.3.9.4.

**attribute** – according to the XML Specification 1.1, attributes are used to associate name-value pairs with elements; attribute specifications shall not appear outside of start-tags (<...>) and empty-element tags (<.../>); each attribute specification has a name and a value; XML attribute types are of three kinds: a string type (any literal string as a value), a set of tokenised types (varying lexical and semantic constraints), and enumerated types.

*more:* XML Spec: 3.3.

**axes** – see *dimensions*.

**balance attribute** – a balance is an optional attribute that appears on items of the type *monetaryItemType*; it is tokenised and may be assigned the values *credit* or *debit*; according to the basic rule of double entry accounting, assets and expenses have a normal debit balance while equity, liabilities and revenues have a normal credit balance; other monetary elements may be assigned a balance attribute to improve calculation validation.

*more:* XBRL Spec: 5.1.1.2; FRTA 2.2.3; 2.2.4.

**base context** – a context in an instance document without any dimensional information placed in scenario or segment elements of the context.

**base taxonomy** – see *core taxonomy*.

**Bound Volume** – the IFRS Bound Volume, is the consolidated collection of the most up-to-date IFRSs released annually by the IASB.

**calculation linkbase** – a linkbase that contains mathematical relationships such as addition and subtraction (see *weight attribute*) between numeric items defined in a schema document.

*more:* XBRL Spec: 5.2.5 ; FRTA 3.3.

**calculationArc element** – an XLink arc element; it defines how concepts relate to each other for calculation purposes; one standard arcrole value defined for this element is *http://www.xbrl.org/2003/arcrole/summation-item*.

*more:* XBRL Spec: 5.2.5; FRTA 3.3.

**concept** – concepts are defined in equivalent ways:

1      in a syntactic sense, a concept is an XML Schema element definition, defining the element to be in the item element substitution group or in the tuple element substitution group.

2      at a semantic level, a concept is a definition of a kind of fact that can be reported about an activity or the nature of a business activity.

*source:* XBRL Spec: Terminology.

**concept-label relationship** – concerns the arcrole value on a labelArc element which is *http://www.xbrl.org/2003/arcrole/concept-label*; it is used from a concept locator (*loc element*) to a label element and it indicates that the label conveys information about the concept.

*more:* XBRL Spec: 5.2.2.3.

**concept-reference relationship** – concerns the arcrole value on a *referenceArc* elelement which is *http://www.xbrl.org/2003/arcrole/concept-label*; it is used from a concept locator (*loc element*) to a resource element and it indicates that the reference is to materials documenting the meaning of the concept.

*more:* XBRL Spec: 5.2.3.3.

**context (inc context element)** – context is defined as:

1        background of the value of the business concept; component of the business fact.

2        an element that occurs as a child of the xbrl element in an XBRL instance; it documents the entity, the period and the scenario that collectively give the appropriate context for understanding the values of items.

*more:* XBRL Spec: 4.7.

**core taxonomy** – a taxonomy that is used as the foundation for the creation of an extension.

**core schema** – the core schema of the IFRS Taxonomy is the schema that contains all element definitions.

*more:* XBRL Spec: 5.1.1.2; FRTA 2.2.3; 2.2.4.

**cross-context rule** – concerns instance documents and calculation linkbases and relates to the impossibility of performing calculations between numeric items appearing in different contexts (ie when one is a flow and its definition periodType value is set to *duration* and the other is a resource and it is described as *instant*); typically, flows appear in Income statements and Statements of Cash Flow while resources are listed on the Balance sheet; mix contexts (flows and resources together) occur whenever movements from a resource state, at one point in time to another, are to be calculated in a report or any kind of explanatory disclosure (for example, in the Statement of changes in equity, Changes in assets, etc.); the cross-context problem may be overcome using a formula linkbase and the functions that it provides.

**decimals attribute** – appears on numeric items (facts) in instance documents; it specifies the number of decimal places to which the value of the fact represented may be considered accurate, possibly as a result of rounding or truncations; it shall be an integer or possess the value *INF* meaning that the number expressed is the exact value of the fact; the decimals attribute shall not occur together with the precision attribute on the same fact element.

*more:* XBRL Spec: 4.6.5.

**definition linkbase** – a linkbase that is intended to contain a wide variety of miscellaneous relationships between concepts in taxonomies; four standard relations expressed by this linkbase are *general-special*, *essence-alias*, *similar-tuples* and *requires-element* as well as dimensional relationships.

*more:* XBRL Spec: 5.2.6; FRTA 3.4.

**definitionArc element** – an XLink arc element; it defines different types of relationships that may appear between concepts; there are four standard arcrole values defined for this element and they are:

- *http://www.xbrl.org/2003/arcrole/general-special*

- *http://www.xbrl.org/2003/arcrole/essence-alias*

- *http://www.xbrl.org/2003/arcrole/similar-tuples*

- *http://www.xbrl.org/2003/arcrole/requires-element*

as well as dimensional arcroles.

*more:* XBRL Spec: 5.2.6.

**dimensions (axes)** – the term dimensions in XBRL relates to the ability to express multidimensional information; for example, profit from sales could be presented by products, regions, segments, etc; to express such relations XBRL International developed the Dimension 1.0 Specification, which enriches the general XBRL Specification with rules and procedures on how to construct dimensional taxonomies and instance documents.

*more:* XBRL Dimensions 1.0.

**domain** – may be an empty or possibly infinite set of domain members.

*more:* XBRL Dimensions 1.0: Terminology.

**domain member** – each of the possibilities in the domain of a dimension; explicit domains are defined by domain-member relationships; domain member items are in the substitution group of *xbrli:item*.

*more:* XBRL Dimensions 1.0: Terminology.

**DTS** – a collection of taxonomy schema documents and linkbases; the bounds of a DTS are such that the DTS includes all taxonomy schemas and linkbases that can be discovered by following links or references in the taxonomy schemas and linkbases included in the DTS; at least one taxonomy schema in a DTS shall import the *xbrl-instance-2003-12-31.xsd schema*.

*source:* XBRL Spec: Terminology.

**element** – according to the XML Specification 1.1, each XML document contains one or more elements, the boundaries of which are either delimited by start-tags (<...>) and end-tags(</...>), or for empty elements, by an empty-element tag (<.../>); each element has a type, is identified by name and may have a set of attribute specifications; in XBRL, elements (see *concept*) are defined and assigned attributes in schemas and may appear either as items or as tuples; instance documents contain elements together with the content and information about the context that they are associated with.

*more:* XML Schema: 3.3.2.

**element content (value, business fact)** – appears between a start-tag (<...>) and a closing-tag (<.../>); in the example *<Asset>1000</Asset>* the number 1000 is the content; content depends on the type of an element; empty elements (<.../>) have no content but they may carry information in their attributes or simply appear in instance documents.

**entity element** – a required element in a context; it identifies the entity that is reporting the facts; it shall contain an identifier element and may include a segment description.

Example:

```
<entity>
        <identifier scheme="http://www.nasdaq.com">COMPANY</identifier>
        <segment>
                <my:state>MI</my:state>
        </segment>
</entity>
```

*source:* XBRL Spec: 4.7.3.

**entity-specific extension** – a taxonomy extension based on a core schema providing elements and relationships necessary for reporting by a specific entity.

**entry point** – a schema or instance which customises modularised DTS for the needs of a specific entity, industry or region.

**entry point schema** – a schema which imports the core (and/or dimensions) schema and necessary linkbases; entry point schema should be imported via entity extension schema.

**essence-alias relationship** – concerns the arcrole value on a definitionArc element which is *http://www.xbrl.org/2003/arcrole/essence-alias*; it connects items that have similar meaning in terms of business reporting and shall be consistent as described in XBRL Spec. 5.2.6.2.2.

**extended link element (also referred to as ELR)** – extended links represent a set of relationships between information that they contain and information contained in third party documents; as part of a taxonomy, extended links are grouped in linkbases and provide additional information about concepts by expressing relationships that they come into; in particular, extended links contain locators, resources (eg label, reference, ...) and arcs.

*more:* XBRL Spec: 3.5.3.

**fact** – a concept placed in a context that has an assigned value; facts appear in instance documents; they can be simple, in which case their values are expressed as simple content (except in the case of simple facts whose values are expressed as a ratio), or compound, in which case their value is made up from other simple and/or compound facts; on the schema level, simple facts are expressed using items and compound facts are expressed using tuples; the comparison between a concept and a fact is presented in the table below:

| Concept | Fact |
|---|---|
| Intangible Assets | Intangible Assets as of 31 December 2003 amounted to 300,000 GBP |

*more:* XBRL Spec: 4; FRTA 2.2.2.

**footnote** – appears in instance documents and provides additional information about facts; for example, several facts may be linked to the sentence *Including the effect of merger with Sample Company*; to express these connections XBRL utilises a footnoteLink extended link element; footnoteLinks act as a kind of linkbase and enclose locators to the instance documents' facts; footnotes use footnoteArcs with an arcrole value set to *http://www.xbrl.org/2003/arcrole/fact-footnote* to connect facts to additional information.

*more:* XBRL Spec: 4.11.

**footnoteArc element** – an XLink arc element; it appears in instance documents in a footnoteLink extended link and connects facts with additional information (footnote) relating to them; one standard arcrole value defined for this element is *http://www.xbrl.org/2003/arcrole/fact-footnote*.

*more:* XBRL Spec: 4.11.1.3.

**footnoteLink element** – an extended link appearing in instance documents; it contains locators, resources and arcs that describe additional information for facts by providing footnotes.

*more:* XBRL Spec: 4.11.1.

**formula linkbase** – a formula is a specification is that is being developed by XBRL International; it aims to satisfy the formula linkbase requirements document by providing a generalised mechanism to build formulae based on XBRL concepts and XBRL dimensions; formulae can be used to describe business rules for creating new XBRL facts in new instance documents and for describing consistency checks for instance documents.

*more:* XBRL Formula Requirements Candidate Recommendation.

**from attribute** – an XLink attribute that appears on arcs; its value is equal to the value of a label attribute of at least one locator or resource on the same extended link as the arc element itself; its value is an XML *NCName* (ie it must begin with a letter or an underscore).

*more:* XBRL Spec: 3.5.3.9.2.

**FRTA** – Financial Reporting Taxonomy Architecture; it is a document published by the XBRL International Consortium that recommends architectural rules and establishes conventions that assist in the comprehension, usage and performance of different financial reporting taxonomies; it is mainly intended for application by public taxonomy developers (authorities).

*source:* FRTA Abstract.

**functions** – the term functions in XBRL relates to XPath 2.0 functions adapted to aid in the querying and creation of XBRL instance documents.

*more:* XBRL Functions Requirements 1.0.

**general-special relationship** – concerns the arcrole value on a definitionArc element which is *http://www.xbrl.org/2003/arcrole/general-special*; it is used to express relationships between concepts when one has a more generic meaning than the other; a common example is *Postal code* for which the specific case *Zip code* is used in the United States.

*more:* XBRL Spec: 5.2.6.2.1.

**href attribute** – an attribute that supplies the data that allows the XLink application to find a remote resource (or its fragment); it shall be used on locators; its value shall be a URI.

*more:* XLink Spec: 5.4.

**hypercubes (tables)** – a hypercube represents a set of dimensions; hypercubes are abstract elements in the substitutionGroup of hypercubeItem that participate in has-hypercube relationships and hypercube-dimension relationships.

*more:* XBRL Dimensions 1.0: Terminology.

**ID attribute** – may appear on elements and attributes; its value fulfils the same requirements as those imposed on the name attribute; it uniquely identifies elements or attributes which bear them; locators point to elements using the element's ID; the ID attribute must appear on context and unit elements.

*more:* XBRL Spec: 3.5.3.1; 3.5.2.1; 4.1.1; 4.7.1; 5.1.3.2.

**identifier element** – an element that appears on the entity element; it specifies the schema for identifying business entities using a required schema attribute that contains the namespace URI of the identification system; it provides a framework for referencing naming authorities.

*source:* XBRL Spec: 4.7.3.1.

**IFRS Taxonomy** – the Taxonomy developed by the IFRS Foundation; it is the XBRL representation of the IFRSs, including International Accounting Standards (IASs) and Interpretations, as issued by the IASB in the form of the IFRS Bound Volume. Physically, the Taxonomy consists of a set of XBRL files.

**import element** – is used to add many schemas with different target namespaces to a schema document; it contains a required attribute namespace and optional ID and schemaLocation; at least one taxonomy schema in a DTS shall import the *xbrl-instance-2003-12-31.xsd* schema.

*more:* XBRL Spec: 5.1; XML Schema Structures 4.2.3.

**include element** – is used to add multiple schemas with the same target namespaces to a schema document; it contains a required attribute schemaLocation and optional id.

*more:* XML Schema Structures 4.2.1.

**IFRSs** – International Financial Reporting Standards, including International Accounting Standards (IASs) and Interpretations, constitute a set of accounting principles issued by the IASB.

**instance document** – a business report in XBRL format; it contains tagged business facts (whose definitions can be found in the taxonomy that the instance document refers to), together with the context in which they appear and unit description; the root element of XBRL instances is *<xbrl>*.

*more:* XBRL Spec: 4.

**item** – an item is referred to in two ways:

1      item is a value of the substitutionGroup attribute on an element in a schema.

2      an item is an element in the substitution group for the XBRL item element; in an instance document an item contains the value of the simple fact and a reference to the context (and unit for numeric items) needed to interpret that fact correctly; when items occur as the children of a tuple, they are also interpreted in the light of the other items and tuples that are children of the same tuple.   There are numeric items and non-numeric items: numeric items are required to document measurement accuracy (precision and decimals) and units of measurement.

*more:* XBRL Spec: 4.6; FRTA 2.2.

**iXBRL** – inline XBRL; a standard for embedding XBRL fragments into an HTML document.   The objective is to provide documents which can be viewed in a browser while making XBRL tags which can be processed automatically by consuming applications.

**label element** – appear in label linkbases on labelLink extended links; they provide information about the concepts they are connected to (using arcs and locators); this information may be carried by a label element, which may vary from a simple label to a wide documentation of the concept; the content of the label element can be mixed and it may contain any string and/or a fragment of XHTML; it must contain the xml:lang attribute that describes the language of the content; an optional role attribute may provide additional information about the type of a label (details in XBRL Spec 5.2.2.2.2 Table 8) indicating whether the label is:

- a standard one (no role or role set to *http://www.xbrl.org/2003/role/label*)

- a documentation one (*http://www.xbrl.org/2003/role/documentation*)

- or a measurement guidance one (*http://www.xbrl.org/2003/role/measurementGuidance*), etc.

*more:* XBRL Spec: 5.2.2.2 .

**labelArc element** – an XLink arc element; it connects concepts with label resources; one standard arcrole value for this element is *http://www.xbrl.org/2003/arcrole/concept-label*.

*more:* XBRL Spec: 5.2.2.3.

**label linkbase** – contains relationships between concepts defined in a schema and resources such as labels and documentation in different languages.

more: XBRL Spec: 5.2.2.

**label attribute on locators** – identifies the locator so that arcs in the same extended link can reference it; xlink:label attribute value is an *NCName* (this requirement means that it shall begin with a letter or an underscore).

*more:* XBRL Spec: 3.5.3.7.3.

**lang attribute** – an XML attribute that is used to identify the language in which the element content is written; the values of this attribute must be language identifiers as defined by IETF RFC 3066.

*more:* XML Recommendation: 2.12.

**linkbase** – a collection of XLink extended links that document the semantics of concepts in a taxonomy; linkbases fall into one of three categories:

1      relationships linkbases (calculation, definition and presentation) that manage the relationships between taxonomy elements.

2      label linkbases that associate taxonomy elements with text written in various languages.

3      reference linkbases that connect concepts with authoritative literature.

The root element of all linkbases is *<linkbase>*.

*more:* XBRL Spec: 5.2.

**linkbase element** – the root element of a linkbase intended to be used as a linkbase container, holding namespace prefix definitions and the schemaLocation attribute; it may enclose one or more extended links.
*more:* XBRL Spec: 5.2.1; 3.5.2.

**loc element** – appears on extended links and is used to locate elements defined in a schema (is acts as a locator); locators require attributes xlink:href and xlink:label.

*more:* XBRL Spec: 3.5.3.7.

**locator** – provides an XPointer reference to the taxonomy schema element definitions that uniquely identify each concept; they provide an anchor for extended link arcs; for consistency there is only one locator defined for use in all XBRL extended links and it is *<loc>* element.

**more:** XBRL Spec: 3.5.3.7.

**maxOccurs attribute** – appears in XBRL mainly on element references in tuples; it indicates the maximum number of an element's occurrences on a tuple; its value must be a positive integer and the default is *1*; to express an unknown or infinite number the expression unbounded is used.

*more:* XML Schema : Occurrence Constraints.

**metadata** – metadata is data about data (literally, since it is composed of the Greek word *meta* and the Latin term *data*, together meaning information); in XBRL it means computer understandable information about business concepts; the accounting term *Asset* is very meaningful to anyone familiar with financial reporting, but it has no meaning to a computer until it is told how to interpret it; these definitions appear in schemas and are enriched by linkbases (which inform computers about the relationships between elements and between the elements and other resources); together schemas and linkbases constitute taxonomies.

**minOccurs attribute** – appears in XBRL mainly on element references in tuples; it indicates the minimum number of an elements occurrences on the tuple; its value must be a positive integer and the default is *1*.

*more:* XML Schema : Occurrence Constraints.

**name attribute** – appears on the definitions of elements and attributes and assigns them with a unique name; it begins with a letter (or one of the punctuation characters from a specific set) and continues with letters, digits, hyphens, underscores, colons, or full stops, which together are known as name characters; they must not begin with the string *xml* (upper or lower case in any combination), which is reserved for the XML standardisation and specification.

**namespace** – an XML namespace is a collection of names, identified by a URI reference, which are used in XML documents as element types and attribute names; XML namespaces differ from the namespaces conventionally used in computing disciplines in that the XML version has an internal structure and is not, mathematically speaking, a set; the XML namespace attribute (xmlns) is placed in the start tag of an element (typically the root element eg *<schema>* or *<linkbase>*) and possesses the following syntax – *xmlns:prefix="namespaceURI"*.

**non-numeric item** – an item that is not a numeric item, eg a date.

*source:* XBRL Spec: Terminology; *more:* XBRL Spec: 5.1.1.3.

**numeric item** – an item whose content is derived by the restriction of XML Schema types decimal, float or double, or has complex content derived by the restriction of the XBRL defined type fractionItemType; reported in an instance document it needs the reference to a unit.

**source:** XBRL Spec: Terminology; *more:* XBRL Spec: 5.1.1.3.

**parent-child relationships** – concerns an arcrole value on the presentationArc element which is *http://www.xbrl.org/2003/arcrole/parent-child*; it is used to express hierarchical relations between concepts that appear in paper form business reports and stem from financial and accounting principles, rules and regulations;

*more:* XBRL Spec: 5.2.4.2.

**period element** – in XBRL, the term period relates to instant or duration time; in business reporting, financial facts are reported either as of a particular date (for example in the balance sheet) or for period (ie for the time between two specified dates of which one begins the period and the other ends it); the period element constrains the instant or interval time for reference by an item element in instance documents; different periods are carried by different contexts; to reflect the business reporting idea of instant and duration, the period element may carry either a single instant element or a sequence of *startDate* and *endDate* elements or an element *forever*; the content of the first three elements should be a date TimeType (*yyyy-mm-dd:Thh:mm:ss*) or dateType (*yyyy-mm-dd*) while the last one is empty.

*more:* XBRL Spec: 4.7.2.

**periodType attribute** – appears on elements in schemas; it is used on items; it may be assigned one of two values – *instant* and *duration*; the first one indicates that the element, when used in an XBRL instance, must always be associated with a context in which the period is instant (ie at the point of time); the latter means that this period in instance documents shall be expressed either using a sequence of startDate and endDate elements or an element forever.
*more:* XBRL Spec: 5.1.1.1.

**precision attribute** – appears on numeric items (facts) in instance documents; it conveys the arithmetic precision of a measurement and, therefore, the utility of that measurement to further calculations; it must be an integer or possess the value *INF*

meaning that the number expressed is the exact value of the fact; the precision attribute must not occur together with the decimals attribute on the same fact element.

*more:* XBRL Spec: 4.6.4.

**prefix** – when declaring namespaces, they may be associated with prefixes that are used to qualify references to any schema component belonging to that namespace; prefixes that precede names of elements, attributes and some of their predefined values provide an indication of where to find definitions of these properties.

**presentation linkbase** – contains hierarchical presentation relationships between concepts defined in the schemas it refers to; it includes extended links that contain locators of elements and arcs reflecting parent-child relationships between them.

*more:* XBRL Spec: 5.2.4.

**presentationArc element** – an XLink arc element; it is used in presentation linkbases to define hierarchical relationships between concepts in terms of their appearance in business reports; one standard arcrole value defined for this element is *http://www.xbrl.org/2003/arcrole/parent-child*.

*more:* XBRL Spec: 5.2.4.2.

**line items** – XBRL concepts which can be reported in a dimensional context (also often referred to as measures).

**reference element** – appears on referenceLink extended links; it is intended to enable taxonomies to ground the definitions of concepts in authoritative statements in published business, financial and accounting literature; it should provide the information necessary to find the reference materials that are relevant to understanding appropriate usage of the concept being defined, but does not include the reference materials themselves; the reference element carries an arcrole attribute that describes the type of reference being defined (presentation, measurement, definition, etc); it also contains a set of elements called parts (from their substitutionGroup which is link:part); because the structure of reference materials may differ, taxonomy developers are allowed to define their own parts; however, a predefined universal set of parts is available (*http://www.xbrl.org/2006/ref-2006-02-27.-xsd*).

*more:* XBRL Spec: 5.2.3.2.

**reference linkbase** – is intended to contain relationships between concepts and references to authoritative statements in the published business, financial and accounting literature that give meaning to the concepts; it includes extended links referenceLink that contain locators of elements defined in schema, reference elements describing resources and arcs presenting concept-reference relationships between them.

*more:* XBRL Spec: 5.2.3.

**referenceArc element** – an XLink arc element; it connects concepts with reference resources; one standard arcrole value for this element is *http://www.xbrl.org/2003/arcrole/concept-reference*.

**more:** XBRL Spec: 5.2.3.3.

**requires-element relationship** – concerns the arcrole value on a definitionArc element which is *http://www.xbrl.org/2003/arcrole/requires-element*; it is used to indicate the facts required in an instance document, another fact appears in this instance documents.

*more:* XBRL Spec: 5.2.6.2.4.

**role attribute** – an XLink attribute that describes the meaning of resources within the context of a link; it may be used on extended- and simple- type elements as well as locators and resources; the value of role must be an absolute URI.

**role schema** – a schema containing only definitions of roles.

**root element** – is the top level element fulfilling the role of a container for a larger whole; in XBRL such elements can be schema, xbrl and linkbase.

**root folder** – the top folder in the IFRS Taxonomy structure with the name constructed according to the guideline *YYYY-MM-DD* representing a single release of the IFRS Taxonomy.

**schema document** – contains definitions of concepts; together with linkbases which refer to it, it constitutes a taxonomy; a schema document should specify a target namespace; its root element is schema.

*more:* XBRL Spec: 5.1.

**schema element** – the root element of a schema document; it opens and closes every taxonomy schema; it specifies the target namespace and may assign prefixes to other namespaces used.

*more:* XML Schema: 3.15.2.

**schemaLocation attribute** – a schemaLocation attribute is used in four circumstances:

- on an xbrl element in instance documents to provide indicators to the application regarding the location of schema documents against which the instance was created.

- on a linkbase element in a linkbase to indicate to the application the location of schema documents.

- (optional) on an import element in a schema document to provide hints to the application regarding the location of schema documents that the author warrants; there it supplies the required components for the namespace identified by the namespace attribute.

- (required) on an include element in schema documents it contains a URI reference which shall identify a schema document; the effect is to compose a final effective schema by merging the declarations and definitions of the including and included schemas.

*source and more:* XML Schema Primer: 5.6; XML Schema Structures: 2.6.3; XBRL Spec: 4.1.

**schemaRef element** – must appear in every instance document as a child of an xbrl element before other parts of an instance; it specifies the taxonomy schemas an instance belongs to.

*more:* XBRL Spec: 4.2.

**segment element** – appears on an entity element in a context definition; it is an optional container for additional tags defined by the instance preparer; it is intended to identify the business segment more completely in cases where the entity identifier is insufficient; in general, the content of a segment will be specific to the purpose of the XBRL instance; this element must not appear empty.

*source and more:* XBRL Spec: 4.7.3.2.

**scenario element** – an optional element that appears in instance documents; it allows for additional information to be included in instances; the preparer of an instance documents defines the tags used to describe the information; this information must enclose in particular the type of data reported (eg actual, budgeted, restated, pro forma, ...)

*more:* XBRL Spec: 4.7.4.

**similar-tuples relationship** – concerns the arcrole value on a definitionArc element which is *http://www.xbrl.org/2003/arcrole/similar-tuples*; it represents relationships between tuple concepts that have equivalent definitions; for example, this kind of relationship would be appropriate to use between two different tuple concepts that are both designed to describe mailing addresses.

*more:* XBRL Spec: 5.2.6.2.3.

**Standard Approach** – the development approach of the IFRS Taxonomy characterised by the development of the Taxonomy components on a standard by standard (IFRS by IFRS) basis.

**substitutionGroup attribute** – appears on element definitions in schemas; XBRL defines two basic substitution groups, items and tuples; its purpose is to indicate which type can be substituted for the actual definition.

**summation-item relationship** – concerns the arcrole value on a calculationArc element which is *http://www.xbrl.org/2003/arcrole/summation-item*; it only represents relationships between concepts that are in the item substitutionGroup and whose type is numeric (eg monetary or decimal); the weight attribute defines the algebraic sign of the operation.

*more:* XBRL Spec: 5.2.5.2.

**tag** – mark-up languages such as XBRL use tags to describe data, for example *<Asset>1000</Asset>* – the word *Asset* together with the brackets < and > is called a tag; there are opening tags: <...> and closing tags: </...>.

**taxonomy** – taxonomy in general means a catalogue or set of rules for classification; in XBRL, a taxonomy is a dictionary, containing computer-readable definitions of business reporting terms as well relationships between them and links connecting them to resources (metadata); a typical taxonomy consists of a schema (or schemas) and linkbases; a set of taxonomies that can be discovered from one entry point schema are called a DTS.

*more:* XBRL Spec: 5.

**taxonomy extension** – adds concepts and modifies the relationships between the concepts in the core taxonomies that they extend; they are created to support specialised reporting requirements in specific accounting jurisdictions, in specific industries, or for specific companies; taxonomy extensions consist of a set of taxonomy schemas and/or linkbases that augment a DTS that includes the core taxonomies.

*source:* FRTA 5.

**text block** - concept with type of escapedItemType; used to report escaped content (ie HTML or XHTML).

**to attribute** – an XLink attribute that appears on arcs; its value is equal to the value of a label attribute of at least one locator or resource on the same extended link as the arc element itself; its value must be an XML *NCName* (ie it must begin with a letter or an underscore).

*more:* XBRL Spec: 3.5.3.9.3.

**tuple** – a tuple is one of two standard values of the substitutionGroup attribute on an element in an XBRL schema; elements possessing this value are often referred to as tuples; according to the XBRL Specification, tuples associate facts that cannot be independently understood and their meaning depends on their relationship to other elements; an example of such a set of facts is a row in a payroll table that consists of the name of the employee and his/her position and salary; each of these elements does not have full meaning without being associated with the others; tuples are commonly used to express tables with known headings and an unknown number of rows; tuples contain other elements; in XML, elements that contain other elements are said to have complex types; additionally, tuples do not possess any content other than their various elements so their complexContent restricts anyType only to the elements referred to; a tuple definition may also contain information on the number of minimum and maximum occurrences or element possesses as well as their sequence.

*more:* XBRL Spec: 4.9; FRTA 2.3.

**type attribute** – may or must appear on different elements; from an XBRL perspective, the most important type attribute appears on concept definitions in schemas which indicate the data types of the described items; XBRL item types were derived from XML data types; the most common types used in financial reporting taxonomies are stringItemType, which may contain any string of characters, monetaryItemType, which is used in concepts for which there is a need to specify a currency and decimalItemType, which is carried by other numeric items; taxonomy developers may create their own types as necessary to express financial information by extending or restricting the available XBRL or XML predefined types; a type attribute shall also appear on XLink simple- and extended- links (in particular on schemaRef and linkbaseRef elements).

*more:* XBRL Spec: 3.5.1.1; 3.5.3.1; 4.2.1; 4.3.1; 5.1.1.3.

**unit element** – an element that appears in instance documents and specifies the units in which numeric items (that refer to its required ID attribute using a unitRef attribute) have been measured; it may define simple units using a measure element and complex units providing divide element and its sub-elements (unitNumerator and unitDenominator); there are several constraints imposed on this element, its children and their content; for example monetary concepts shall refer to ISO 4217 currency codes.

*more:* XBRL Spec: 4.8.

**URI reference** – Uniform Resource Identifier, a compact string of characters used for identifying an abstract or physical resource; it appears in absolute or relative form; URI references are not allowed to contain characters such as all non-ASCII characters and excluded characters listed in IETF RFC 2396, except for number sign (#) and per cent sign (%) and the square brackets ([ ]); example: *http://www.ifrs.org/xbrl*.

*more:* IETF RFC: 2396.

**use attribute** – an optional attribute that appears on arcs; its two possible values are *optional* and *prohibited*; *optional* is a default value (ie the value that the attribute is assigned when it is not specified) and represents a relationship that may participate in the network of relationships defined in a DTS; *prohibited* indicates that the relationship does not exist; the use attribute is used by taxonomy extension developers to prohibit and override relationships defined in the linkbases of the core taxonomy.

*more:* XBRL Spec: 3.5.3.9.7.1.

**versioning** – the term versioning in XBRL relates to issues and problems that occur when implementing changes to an existing taxonomy; any changes to a taxonomy may affect extensions that are based on it; versioning aims to help applications and people involved in taxonomy building and instance creation to tackle these changes.
*more:* Versioning Requirements.

**weight attribute** – a required attribute on calculationArc elements; it must have a non-zero decimal value; for summation-item arcs, the weight attribute indicates the multiplier to be applied to a numeric item value (content) when accumulating numeric values from item elements to summation elements; a value of *1.0* means that 1.0 times the numeric value of the item is applied to the parent item; a weight of *-1.0* means that 1.0 times the numeric value is subtracted from the summation item; there are also rules that are applied to the calculation of elements possessing opposite balance attribute values (credit and debit).

*more:* XBRL Spec: 5.2.5.2.1.

**XBRL** – eXtensible Business Reporting Language; it is an XML dialect developed for business and financial reporting purposes by a non-profit consortium XBRL International which has members from over 500 companies and institutions that represent finance and IT sector organisations all over the world.

**xbrl element** – the root element of instance documents; in files, it serves as a container of data in XBRL format; first and foremost it contains an element that refers to the schema (schemaRef), provides contextual information (context and unit) for included facts and may provide them with footnotes (footnoteLink).

*more:* XBRL Spec: 4.1.

**XBRL Specification** – defines the rules and fundamentals of the language; it is designed to communicate information to IT professionals who develop applications and tools intended to be XBRL-compatible, and to a lesser extent it assists taxonomy

developers; to find out more and obtain the latest version of the XBRL Specification 2.1 visit the XBRL International website (*http://www.xbrl.org*).

**XLink** – XML Linking Language used to create hyperlinks in XML documents; it works in a similar way to the <a> element and its href attribute in HTML; to access its features there should be an XLink namespace declared (usually) at the top of the document (*http://www.w3.org/1999/xlink*).

*more:* XLink W3C Recommendation from 27 June 2001.

**XML** – Extensible Markup Language; it was developed by W3C (World Wide Web Consortium) to describe and carry data by allowing users to define their own tags (in contrast to HTML where the tags are predefined); this data (tags) is characterised using a Document Type Definition (DTD) or XML Schema which makes XML self-descriptive.

*more:* XML 1.1 W3C Recommendation from 04 February 2004.

**xmlns attribute** – used to declare namespaces and their prefixes; in XBRL it is usually used on root or top level elements (schema, linkbase, xbrl).

**XML Schema** – defines the structure and the content of the XML documents that refer to it by defining, in particular, the elements and attributes and providing information about their type and possible content.

*more:* XML Schema W3C Specification and Development.

**XPath** – developed to help find information in XML documents; it is mainly used in XSLT to navigate over elements and attributes; XPath provides a set of functions that allows specific actions to be performed on XML data.

*more:* XPath 2.0 W3C Recommendation from 3 November 2005.

**XPointer** – supports XLink by providing solutions to locate specific fragments of the XML document; its full name is XML Pointing Language; XBRL uses two specific XPointer schemes: the element pointer (works by counting) and the shorthand pointer (works by referencing to an ID).

*more:* XPointer Framework W3C Recommendation 25 March 2003.

**XSLT** – eXtensible Stylesheet Language Transformations; developed to facilitate conversions of XML documents into other XML documents or into other formats (eg XHTML); to perform these transformations, XSLT uses XPath expressions.

*more:* XSL Transformations 1.0 W3C Recommendation 16 November 1999.

## Appendix C: Style Guide

The purpose of this Style Guide is to facilitate the creation of a consistent, high-quality and easy-to-use taxonomy in many languages.

The overall goals of this document are to achieve the following:

1. Provide users of the taxonomy with labels that are recognisable to the user.

2. Provide users of the taxonomy with consistency. Consistency helps predictability, which makes it easier to locate a concept.

3. Provide labels that minimise the need to go to reference materials and to ensure that the user of the taxonomy is using the correct concept.

4. Maximise the usability for users of the taxonomy when they apply common 'search' and 'filter' or 'find' techniques enabled by a computer application.

5. Provide enough information within labels to maximise their usability and uniqueness.

6. Provide a unique label for every concept in the IFRS Taxonomy so that users do not need to go to the concept name level to ensure that they have the correct concept.

7. Support translators to achieve consistent translations of English labels of the IFRS Taxonomy.

### 1    General rules

Wording prescribed in IFRSs takes precedence over the rules in this document. This document is to be used in conjunction with IFRSs and should be applied when IFRSs do not provide enough guidance to construct labels for the IFRS Taxonomy.

### 2    Label linkbase in the IFRS Taxonomy

### 2.1    Labels SHOULD be concise, follow IFRSs terminology, and avoid being excessively descriptive.

For example 'Property, plant and equipment before accumulated depreciation and excluding intangible assets' should be 'Property, plant and equipment, gross'.

### 2.2    The agreed spelling SHOULD be used.

As there are various accepted ways to spell some terms, the following list of terms should be used in the IFRS Taxonomy.

Hyphened prefixes in words used in IFRSs:

**anti** *no hyphen*

**co** *no hyphen except*

- 'co-operate/co-operation'
- 'co-ordinate/co-ordination'

**non** *always hyphen* (but note 'nonsense', 'nonentity' etc)

**over** *no hyphen except*

- 'over-optimistic'
- 'over-represent'

**pre** *no hyphen except*

- 'pre-empt'
- 'pre-exist'

**post** *always hyphen*

**pro** *no hyphen except*

- 'pro-forma'

**re** *no hyphen except*

- 're-enter'
- 're-present' (to present again)
- 're-record'

**semi** *always hyphen*

**sub** *no hyphen except*

- 'sub-lessee'
- 'sub-lessor'

**super** *no hyphen*

**un** *no hyphen*

**under** *no hyphen except*

- 'under-record'
- 'under-report'
- 'under-represent'

## 2.3 Labels SHALL NOT contain certain special characters.

The following characters should generally be avoided in creating concept labels:

**Disallowed Characters**
? | > < : * " + ; = . & ! @ # { } \

**Allowed Characters**
A-Z, a-z, 0-9, (, ), comma, -, ', space, [ ], /

## 2.4 Labels SHALL start with a capital letter and SHALL NOT use upper case, except for proper names and abbreviations.

See examples of proper use in the table below:

- 'Property, plant and equipment, expenditures recognised for constructions'
- 'Description of compliance with IFRSs if applied for interim financial report'

List of words (among others) that are capitalised:

- 'IFRS',
- 'IAS',
- 'IFRIC',
- 'SIC',
- 'XBRL',
- 'IFRSs',
- 'GAAP'.

## 2.5 The following articles SHALL NOT be used in labels:

Table 15.   Disallowed articles

| Disallowed Articles |
| --- |
| The |
| An |
| A |

## 2.6 Adjectives in all labels SHOULD be used with a noun (except terse labels).

For example, 'Temporarily idle' alone means nothing.   'Exploration and evaluation assets, temporarily idle' is meaningful.

## 2.7 Dashes SHALL NOT be used in labels where commas can be used instead.

For example, DO NOT use 'Disclosure − business combinations [text block]', but rather use 'Disclosure of business combinations [text block]'.

An exception is the use of dashes in the definition of extended link roles.

## 2.8 In a series of three or more items, commas SHALL be used after each item excluding the penultimate item.

Use a comma to separate items in a series of three or more items not including before the final 'and'.
For example: 'Property, plant and equipment'

## 2.9 Numbers SHOULD be expressed as text when less than 10.

The expression of number is a matter of judgement.   The following rules for numbers should be considered:

- Exact numbers one through nine should be spelt out, except for percentages and numbers referring to parts of a book (for example, '5 per cent', 'page 2').

- Numbers of 10 or more should be expressed in figures.

- Exceptions are numbers expressed as digits in IFRSs ie 'Level 3 of fair value measurement'

## 2.10 The word 'per cent' SHALL be spelt out, as two words.

A range would be written as '5 to 10 per cent'.

## 2.11 Labels SHALL NOT have leading spaces, trailing spaces or double spaces.

## 2.12 Certain adjectives and prepositions used in labels SHOULD appear before or after the noun and be separated by a comma.

For example: 'Other comprehensive income, net of tax'.

The following sentence construct models the intention of how concept labels should be created.   Note that what is contained in curly braces {}, is one component of the label.   The different sets of curly braces are the different components of the same label. The format below prescribes the order in which the components should appear *if present*:

{Total[*]} {other} {current or non-current} {noun}, {net [of tax] or gross [of tax]}, {at cost or at fair value}

For example: 'Total other non-current asset, gross, at fair value'

Example of properly-constructed labels (per model):

- 'Other comprehensive income, net of tax'

- 'Accumulated depreciation of biological assets, at cost'

Example of poorly-constructed labels (not per model):

- 'Current gross trade receivables'

- 'Trade and other receivables, current, net'

- 'Equity – share subscriptions, total'

- 'Accumulated at cost depreciation of biological assets'

Exceptions include net or gross labels for which the counterpart does not exist. For example:

'Gross profit', 'Net cash flows from (used in) financing activities'.

## 2.13 Adjectives SHOULD be used when there is ambiguity surrounding a concept.

For example, 'Provisions' should always be current, non-current or total.   The proper label for the taxonomy concept should be 'Current provisions', 'Non-current provisions' or 'Total provisions' (this used as a totalLabel role for the concept Provisions).

## 2.14 Concepts for disclosures that define textual type explanations SHOULD start with a descriptor that explains the nature of the text.

For example, 'Explanation of amount of commitments for development or acquisition of biological assets' or 'Description of nature of financial statements'.

Whereas for the concept label 'Impact of changes in accounting estimates', it is not clear if the concept is an amount or a narrative.

The following are common starting labels for text-type content that appear in disclosures:

- 'Additional information about...'

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[*] See 2.24 for restrictions on the use of 'Total'.

- 'Address of ...'

- 'Address where ...'

- 'Country of ...'

- 'Description and carrying amount of ...'

- 'Description of ...'

- 'Description of accounting policy for...'

- 'Description of nature of...'

- 'Description of reason for...'

- 'Description of reason why...'

- 'Domicile of ...'

- 'Explanation of ...'

- 'Explanation when ...'

- 'Indication of ...'

- 'Information about...'

- 'Information required ...'

- 'Information whether ...'

- 'Methods used to...'

- 'Name of ...'

- 'Principal place of ...'

- 'Qualitative information about ...'

- 'Range of ...'

- 'Residence of ...'

- 'Statement of ...'

- 'Summary quantitative data about ...'

## 2.15 Concepts that represent a non-monetary or non-text value SHOULD start with an appropriate descriptor.

These include concepts that are decimals, percentages and dates. The following are common starting labels for non-monetary and non-text content which appear within disclosures:

- 'Date of...'

- 'Number of....'

- 'Weighted average exercise price of ...'

- 'Percentage of...'

- 'Proportion of...'

## 2.16 Labels SHOULD avoid defining what they do or do not include.

For example, 'Property, plant and equipment including land and buildings' should be avoided. What an item includes or excludes should be provided in the definition of the concept or the calculation linkbase. In some cases, a label needs to define inclusions and exclusions, because particular concepts do not have an agreed meaning.
For example: 'Intangible assets without goodwill' is allowed.

## 2.17 For concepts that can be either negative or positive, the concept label SHALL use parentheses ( ) to indicate which concept is represented as positive or negative values in the instance document.

There are occasions in an instance document when the value of a concept could be positive or negative, for example, 'Increase (decrease)'. A space should appear between the positive item and the opening parenthesis. A slash should not be used.

The following are examples:

Table 16.   Concepts that may have positive or negative values

| Use of positives and negatives |
| --- |
| Disposals (acquisitions) |
| from (used in) |
| Gains (losses) |
| Income (expense) |
| Increase (decrease) |
| Inflow (outflow) |
| Loss (reversal) |
| Paid (refund) |
| Profit (loss) |
| Proceeds from (purchase of) |
| Write-downs (reversals) |

Parentheses SHOULD be used to denote positive or negative values and SHOULD NOT be used to denote alternative terms for a label such as 'Deferred (unearned) revenue'.

## 2.18 The label component related to XBRL and not to IFRSs SHALL be placed between square brackets '[ ]' at the end or beginning of the label.

The component of labels placed in square brackets provides XBRL-related information that does not influence the accounting information (for example for alternative breakdown).   For example:

- '[89898] Notes - Reconciliation ....'

- '[88877] Notes - Reconciliation .... [alternative]'

## 2.19 The standard label for abstract concepts that do not represent hypercubes, dimensions or domain members SHALL append the word '[abstract]' or '[line items]' to the end of the label.

Abstract elements are used to organise the taxonomy.   Labels for abstract items shall append the word '[abstract]'.   The reason for this is to differentiate the concept labels and names.

For example: 'Assets [abstract]'.

## 2.20 The standard label for textBlockItemType concepts SHALL append the word '[text block]' to the end of the label

Text block elements are used to disclose narrative information.

For example: 'Disclosure of related party [text block]'.

## 2.21 The standard label for dimensions SHALL append the word '[axis]' to the end of the label.

Dimensions are abstract concepts used as containers for domains, and domain members should be clearly recognisable through their labels.

For example: 'Restatements [axis]'.

## 2.22 The standard label for hypercubes SHALL append the word '[table]' to the end of the label.

Hypercubes are abstract concepts used as link between dimensions and line items.

For example: 'Restatements [table]'.

## 2.23 The standard label for domain members SHALL append the word '[member]' to the end of the label.

Domain members are abstract concepts used as members on the axis (dimension).

For example: 'Restated [member]'.

## 2.24 The word 'total' SHALL NOT be used in any label (except in the total label role).

The word 'total' should not be used in a standard label name.   The word 'total' can be used in the total label role.   In addition, the total label role can use the word 'aggregated' and net label role the word 'net'.

For example, 'Assets, total' should not be used as standard label; 'Assets' is sufficient.

Examples of disallowed use of 'total', which should be avoided for standard label role:

- 'Assets, total'
- 'Changes in issued capital, total'
- 'Sales, total'
- 'Total assets'
- 'Aggregated assets'

## 2.25   Authoritative references SHOULD NOT be used in a label.

Labels should not include the name of authoritative literature.   For example, 'Provisions for doubtful debts as per IAS 21' should be 'Provisions for doubtful debts'.

Reference information is included in the reference linkbase.   If the reference is included in the label, then the label may have to be changed if the reference changes.

Exceptions include: 'Nature of main adjustments to make comparative information compliant with IAS 32, IAS 39 and IFRS 4'.

## 2.26   Labels representing the period start label SHALL use the following format 'at beginning of period' at the end of the label.   Labels representing the period end label SHOULD use 'at end of period' at the end of the label.

Example of proper use of the period start and period end label:

- 'Provisions at beginning of period'
- 'Provisions at end of period'

Example of disallowed use of the period start and period end label:

- 'Provisions, beginning balance'
- 'Provisions, at start'
- 'Provisions, period end'

## 3     Other considerations

## 3.1     Roles definitions SHALL start with the ordering number.

For better sorting of the extended link roles (ELR), the definitions of the ELRs SHALL start with a six-digit number.

The numbers allow sorting of the ELRs according to the structure of financial reports.

For example: '[810940] Disclosure of redesignated financial assets and liabilities'.

## 3.2     Roles definitions SHOULD use the agreed wording.

Roles definitions for disclosures should start with the number followed by the word 'Notes – '.

For example:

- '[836200] Notes - Borrowing costs'.

Exceptions include general information, statements and dimensions:

- '[110000] General information about financial statements'.
- '[220000] Statement of financial position, order of liquidity'.
- '[610000] Statement of changes in equity'.
- '[901000] Dimension - Retrospective application and retrospective restatement'.

## 3.3     The role definition containing alternative breakdowns SHALL append the definition with the word [alternative].

Roles definitions for disclosures shall clearly indicate which of the breakdowns are alternative.

For example:

- '[832720] Notes - Reconciliation of minimum finance lease payments receivable by lessor [alternative]'
- '[834220] Notes - Reconciliation of changes in present value of defined benefit obligation [alternative]'

**IFRS**

International Financial Reporting Standards (IFRSs)
*The IFRS Taxonomy 2013 Guide* provides technical guidance on how to apply the IFRS Taxonomy 2013.

This guide has been specifically prepared for users of the IFRS Taxonomy who are already familiar with XBRL and who have an understanding of the application of IFRSs in XBRL.

International Accounting Standards Board (IASB)
The IASB is the independent standard-setting body of the IFRS Foundation

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