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IFRS[®] Taxonomy Update

IFRS Accounting Taxonomy 2021

Update 2

Technology Update

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IFRS® Accounting Taxonomy 2021

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Technology Update

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Introduction

Why has the IFRS® Foundation made changes to the IFRS Accounting Taxonomy?

This IFRS Accounting Taxonomy update sets out changes to the IFRS Accounting Taxonomy's 'technology'.

The IFRS Accounting Taxonomy 'technology' (in contrast to its 'content') refers to taxonomy features including, but not limited to, the syntax employed to publish and express the content of the IFRS Accounting Taxonomy and the taxonomy architecture used. The architecture relates to taxonomy characteristics such as how the IFRS Accounting Taxonomy content is organised by files and naming protocols. In the context of the IFRS Accounting Taxonomy due process, the IFRS Accounting Taxonomy technology does not include the internal systems used by the Foundation to manage and generate the IFRS Accounting Taxonomy files.

The changes set out in this document were made to reflect developments in the technology (in its more general sense) that underlies or relates to the IFRS Accounting Taxonomy. The changes were also necessary or beneficial to reflect developments in standards and practices, and in the use of the IFRS Accounting Taxonomy or comparable taxonomies in various regulatory environments.

IFRS Accounting Taxonomy due process

The changes to the IFRS Accounting Taxonomy technology described in this document may affect how the taxonomy can be implemented by its users. However, in accordance with the IFRS Accounting Taxonomy due process, the changes detailed in this document only affect the technology of the IFRS Accounting Taxonomy, and were assessed, but not approved, by the IFRS Taxonomy Consultative Group.¹

Who needs to know about these changes?

This document is primarily intended to inform developers and maintainers of XBRL software (such as XBRL processors, report creators or review and consumption tools) about changes that may affect such software.

IFRS Accounting Taxonomy files

The changes resulting from this Update have been included in the IFRS Accounting Taxonomy 2022.

¹ The IFRS Taxonomy Consultative Group (ITCG) operates under the general principles set out for consultative groups and has terms of reference that set out its objectives and its workings. The technical staff consults the ITCG during the development of IFRS Accounting Taxonomy changes. For more details, please refer to the *Due Process Handbook*.

XBRL specification updates

- 1 Two recently finalised minor updates to the XBRL specifications are relevant to the IFRS Accounting Taxonomy and its supporting materials; both updates are being adopted or recommended by regulatory authorities who use the IFRS Accounting Taxonomy.
- 2 Using these updates provides two main benefits. Doing so will ensure that the IFRS Accounting Taxonomy technology is up to date with evolving XBRL specifications and will minimise the costs of software providers who might otherwise need to support a range of specification versions.

Data Type Registry 1.1

- 3 The XBRL Data Type Registry (DTR) provides a centralised list of common data types to be used in XBRL taxonomies, such as the IFRS Accounting Taxonomy, which go beyond the data types provided in the base XBRL specification.
- 4 The IFRS Accounting Taxonomy has previously used Version 1.0 of the data type registry specification. Version 1.1 of this specification reached 'Recommended' status on 8 May 2019. This registry is found at <http://www.xbrl.org/dtr/2020-01-21/dtr.html>, and the XML schema file that provides the data types described in the registry is found at <https://www.xbrl.org/dtr/type/2020-01-21/types.xsd>.
- 5 Version 1.1 contains some technical differences from the 1.0 registry; notably it combines the num and nonnum schemas of DTR 1.0 into a single schema, changing the location and namespace for several data types used by the IFRS Accounting Taxonomy (such as domainItemType and perShare).
- 6 At the XML level, the specific changes required in the IFRS Accounting Taxonomy were:
 - (a) namespace references `xmlns:nonnum='http://www.xbrl.org/dtr/type/non-numeric'` and `xmlns:num='http://www.xbrl.org/dtr/type/numeric'` were replaced by `xmlns:dtr-types='http://www.xbrl.org/dtr/type/2020-01-21'`;
 - (b) `xsd:import` elements referring to these two namespaces were changed to import the `http://www.xbrl.org/dtr/type/2020-01-21` namespace from the file <https://www.xbrl.org/dtr/type/2020-01-21/types.xsd>; and
 - (c) uses of the num and nonnum prefixes were changed to the dtr-types prefix.
- 7 The change from DTR 1.0 to DTR 1.1 entails a technical break in continuity at a detailed XML level. However there is no significant functional or semantic difference between DTR 1.1 and DTR 1.0 for the IFRS Accounting Taxonomy (in that all the same data types that were used in DTR 1.0 exist in the DTR 1.1 schema with the same local names, details and equivalent underlying meaning).

8 Whether this change will have any impact on any software implementation and how significant that impact will be will depend on the fine detail of the software implementation. The impact will also vary between different products. We expect that any changes required to mitigate any resulting issues will be relatively straightforward.

9 For the IFRS Accounting Taxonomy 2022 the Foundation has referenced DTR 1.1 in place of DTR 1.0. We expect any filings whose preparation is based on the IFRS Accounting Taxonomy 2022 also to align with DTR 1.1 where relevant—if they define extension elements using DTR data types, for example.

10 The Foundation understands that the Financial Accounting Standards Board made an equivalent change to its 2021 US GAAP taxonomy (see for example <https://www.fasb.org/cs/Satellite?c=Page&cid=1176175721628&pagename=FASB%2FPAGE%2FSECTIONPAGE>).

Transformation Registry 4

11 Transformation rules are used to allow text strings in Inline XBRL documents to be converted into the data types used within XBRL instance documents.

12 XBRL International has published a new set of transformation rules (Transformation Registry 4). This update changes the names of some rules, makes some more flexible, and adds others (mostly covering the EU’s official languages).

13 Transformation Registry 4 reached ‘Recommended’ status as of 12 February 2020; see <https://www.xbrl.org/Specification/inlineXBRL-transformationRegistry/REC-2020-02-12/inlineXBRL-transformationRegistry-REC-2020-02-12.html>

14 The transformation registry does not affect, and is not used by, the IFRS Accounting Taxonomy directly. It is relevant for Inline XBRL documents, and software that creates or consumes them.

15 The European Securities and Markets Authority’s European Single Electronic Format (ESEF) reporting manual recommends the use of Transformation Registry 4 for filings made in accordance with the ESEF reporting regime. To align the usage of transformation rules, the IFRS Foundation implemented Transformation Registry 4 for the Inline XBRL version of the *IFRS Foundation Annual Report 2020*.

16 From 2022 the IFRS Accounting Taxonomy illustrative examples² will use Transformation Registry 4. This transition required replacing references to the namespace <http://www.xbrl.org/inlineXBRL/transformation/2015-02-26> with references to <http://www.xbrl.org/inlineXBRL/transformation/2020-02-12>, and replacing the transform functions referred to in the Inline XBRL documents:

2 <https://www.ifrs.org/issued-standards/ifrs-taxonomy/ifrs-taxonomy-illustrative-examples/>

Table 1—Transform function equivalents

Existing transform function	Transformation Registry 4 equivalent
Numdotdecimal	num-dot-decimal
Datedaymonthyearen	date-day-monthname-year-en
Zerodash	fixed-zero

HTTPS

- 17 The Foundation decided to use HTTPS (rather than HTTP) addresses for the IFRS Accounting Taxonomy 2022 in hosting the IFRS Accounting Taxonomy XBRL files and in our canonical entry points. HTTPS provides:
- (a) authentication—by allowing user software to check it is receiving content from the expected source, such as the IFRS Foundation, rather than a ‘man-in-the-middle’ impostor, reducing the possibility of anyone intercepting requests for IFRS Accounting Taxonomy content and injecting malicious content; and
 - (b) data integrity—by allowing user software to check that data received is complete and has not been accidentally corrupted when downloading.
- 18 The specific changes required in the IFRS Accounting Taxonomy files were:
- (a) catalog.xml—changed <http://xbrl.ifrs.org> to <https://xbrl.ifrs.org> in the rewriteURI element; and
 - (b) taxonomyCatalog.xml—changed <http://xbrl.ifrs.org> to <https://xbrl.ifrs.org> in all href attributes of entryPointDocument elements.
- 19 Previously published IFRS Accounting Taxonomy files (that is, versions published prior to the IFRS Annual Accounting Taxonomy 2022) will remain available at their current HTTP addresses to avoid any retrospective impact.
- 20 The Foundation expects that this change should have limited impact. Software may need to be reconfigured or updated to access HTTPS content, but we expect such changes to be simple to implement.
- 21 The Foundation notes that several taxonomies published by the US Securities and Exchange Commission for use by Electronic Data Gathering, Analysis and Retrieval system submissions (such as their Document and Entity Information, Country, Currency, Exchanges and Standard Industrial Classification code adjunct taxonomies) have had HTTPS official addresses since their 2019 releases.

Changes to reference URI links

- 22 The Foundation decided to use HTTPS links leading to the new eIFRS service hosting facility, which will be available within the ‘<https://www.taxonomy.ifrs.org>’ domain. These links were used instead of links containing the domain name ‘<http://eifrs.ifrs.org>’, which is currently used

within the ref:URI part of all IFRS Accounting Taxonomy references, and within the accompanying *IFRS Accounting Taxonomy Illustrated* documents.

- 23 The Foundation introduced this change for the IFRS Accounting Taxonomy 2022. Earlier versions of the IFRS Accounting Taxonomy are unaffected, and the links embedded within their ref:URI elements will continue to connect, within the new eIFRS service, to the appropriate locations detailing the related parts of IFRS Accounting Standards. We are committed to support at least the four most recent versions of the annual IFRS Accounting Taxonomy within the new eIFRS hosting facility.
- 24 The Foundation expects that this change should have limited impact. Software that utilises the IFRS Accounting Taxonomy ref:URI may need to be reconfigured or updated to access HTTPS content.
- 25 Any software that currently attempts to parse the (undocumented) detailed structure of the links currently embedded in the IFRS Accounting Taxonomy files and *IFRS Taxonomy Illustrated* documents (in contrast to software that simply follows the links) may need additional adjustment as and when the pattern of the link addresses changes. However, we believe that such detailed parsing of the provided ref:URI information is, or would be, poor practice, is unlikely to occur, and, if it does, it should be discontinued.

Additional entry points

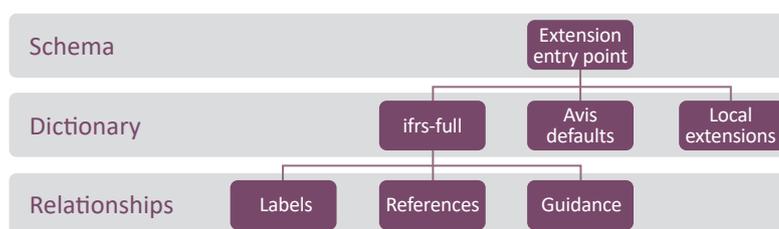
- 26 The Foundation added entry points to the IFRS Accounting Taxonomy, to simplify its extension, that:
- (a) are created for each reporting scenario (basic_ifrs, combined, full-ifrs, full_ifrs_mc, mc, and ifrs_for_smes);
 - (b) include IFRS Accounting Taxonomy elements, all elements' labels including guidance labels and all existing IFRS Accounting Taxonomy references; and
 - (c) exclude Presentation, Definition, Calculation, Generic Label and Generic Reference linkbases, with the exception of the '[990000] Axis – Defaults' Extended Link Role (ELR) in the definition linkbase, which will be included to define the default members of axes.
- 27 The proposed new entry points provide a base that regulators can use to extend the IFRS Accounting Taxonomy. The new entry points also enable regulators to provide reporting entities with a 'base taxonomy' on which they could build their instance taxonomies. The benefits of the base taxonomy should be contrasted with the current typical practice of using the 'core' schema files—containing just the definitions of the IFRS Accounting Taxonomy elements—as the starting point for regulator or entity taxonomies, a practice that requires regulators and entities specifically to provide any labels, axis defaults or references that might be needed. Regulators will now be able to allow reporting entities to easily include all necessary IFRS Accounting Taxonomy components. Users of financial data would then be able to interpret reporting entities' filings and to avoid accidental inconsistencies

without entities necessarily having to define custom schemas. This approach could simplify how filers use the IFRS Accounting Taxonomy architecture and increase the consistency of global IFRS filings.

28 We used this naming convention for the proposed new entry points:

- (a) basic_ifrs_entry_point_ext_YYYY-MM-DD.xsd;
- (b) combined_entry_point_ext_YYYY-MM-DD.xsd;
- (c) full_ifrs_entry_point_ext_YYYY-MM-DD.xsd;
- (d) full_ifrs_mc_entry_point_ext_YYYY-MM-DD.xsd;
- (e) ifrs_for_smes_entry_point_ext_YYYY-MM-DD.xsd; and
- (f) mc_entry_point_ext_YYYY-MM-DD.xsd.

29 Here is an illustration of the components in use for the full-ifrs scenario:



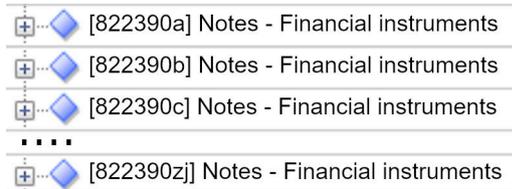
Changes to titles for definition linkbase roles

30 The Foundation has improved the titles of multiple ELRs within the definition linkbases in the IFRS Accounting Taxonomy that had previously used the same title.

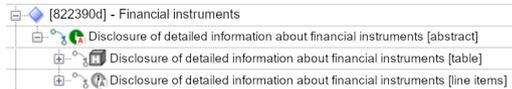
31 The previous approach to creating titles for ELRs in the definition linkbases was derived from the naming of presentation linkbases based on IFRS Accounting Standards. When multiple dimensional/table structures were derived from the same presentation group, the name of that group was given to all definition linkbases representing it.

32 That practice made navigation through the IFRS Accounting Taxonomy definition linkbases more difficult than it could be because some taxonomy viewers only display ELR names when viewing the definition linkbases.

- 33 To illustrate the resulting difficulty in finding a correct dimensional breakdown, consider this example from the IFRS Taxonomy 2021. Let us assume that we are looking for the ‘Disclosure of detailed information about financial instruments’ breakdown. In the definition linkbases there is a list of more than 30 ELRs related to ‘Notes – Financial instruments’:



We can find the ‘Disclosure of detailed information about financial instruments’ breakdown under the ‘[822390d] Notes – Financial instruments’ group:



- 34 To simplify how an appropriate breakdown is found we have enhanced the titles of the ELRs with descriptions of the breakdown contained in each ELR. The example ELR in paragraph 33 will now appear as follows:

‘[822390d] Notes – Financial instruments (Disclosure of detailed information about financial instruments)’.

Appendix—IFRS® Accounting Taxonomy content terminology

This appendix briefly explains the IFRS Accounting Taxonomy terms used in this document.

Core content—IFRS Accounting Taxonomy elements	
<p>The IFRS Accounting Taxonomy contains elements that represent disclosures in financial statements prepared in accordance with IFRS Accounting Standards.</p> <p>These elements are described using:</p> <ul style="list-style-type: none"> • line items – which represent the accounting concepts being reported. They can be either numerical or narrative, reflecting the figures and narrative reported, for example, ‘Assets’, ‘Property, plant and equipment’ and ‘Description of accounting policy for government grants’. • axes and members – information categories and components that accounting concepts can be broken down into or reported by, for example, ‘Classes of property, plant and equipment’. All axes in the IFRS Accounting Taxonomy have a default member that applies whenever a preparer does not combine a line item with a specific member to tag the value of a disclosure. • tables – logical groupings of IFRS Accounting Taxonomy axes, members and line items. 	<p>These IFRS Accounting Taxonomy elements have:</p> <ul style="list-style-type: none"> • element names and element identifiers – unique computer tags used to identify and mark up the data. • element standard labels – human-readable names reflecting the accounting meaning of an element. Some elements have additional labels that provide more specific descriptions, for example, to indicate a total (total label) or to distinguish between opening and closing balances (period start and end labels). Such additional labels do not alter the accounting meaning of the element but are used for displaying IFRS Accounting Taxonomy presentation relationships. • element types (ET) – categories of permitted data values, for example, text (T), text block (TB), monetary (M), decimal (DEC), percentage (PER), duration (DUR): <ul style="list-style-type: none"> • text element types are used for narrative disclosures. They are also used when IFRS Accounting Standards do not specify the details of a disclosure requirement, but that disclosure requirement is expected to be expressed in a free-text format by a preparer. • text block element types are used for a set of information which may include, for example, numerical disclosures, narrative explanations and tables.

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Core content—IFRS Accounting Taxonomy elements	
	<ul style="list-style-type: none"> • element properties, such as: <ul style="list-style-type: none"> • the period—which indicates whether the element is expected to be reported for a period of time (duration) or at a particular point in time (instant); and • the balance—which indicates whether the element is generally expected to be reported as a credit or a debit.
Supporting content—Documentation and references for IFRS Accounting Taxonomy elements	
<p>The IFRS Accounting Taxonomy provides supporting content explaining the accounting meaning of an element.</p>	<p>This content includes:</p> <ul style="list-style-type: none"> • references—which link an element to the authoritative literature, for example, IFRS 15 <i>Revenue from Contracts with Customers</i>. • element reference types (ER)—which define the source of an element, for example, disclosure (D), example (E) and common practice (CP). • documentation labels—which provide a textual definition of each element. The sources of these definitions are the IFRS Accounting Standards and their accompanying materials, when available. • guidance labels—which are implementation notes that provide additional help to preparers on the correct use of IFRS Accounting Taxonomy elements within an electronic report.

Supporting content—Relationships between IFRS Accounting Taxonomy elements (linkbases)	
<p>The IFRS Accounting Taxonomy calculation linkbase explains how elements may relate mathematically to each other.</p>	<p>For example, this content includes:</p> <ul style="list-style-type: none"> • summations of elements to a total or subtotal; and • formulas to indicate that an element is a ratio of other taxonomy elements.
<p>The IFRS Accounting Taxonomy uses the presentation linkbase to provide presentation views under which the line items, axes and members (or combinations of these as tables) have been grouped. This supports human-readable viewing and navigation of the IFRS Accounting Taxonomy.</p>	<p>The IFRS Accounting Taxonomy has specific presentation elements:</p> <ul style="list-style-type: none"> • headings (abstract elements); and • presentation groups. <p>These elements are not used when tagging financial statements. These headings and presentation groups also have standard labels.</p>
<p>The IFRS Accounting Taxonomy uses the definition linkbase to provide views under which the combined line items, axes and members (tables) have been grouped. This supports computer-readable use of the IFRS Accounting Taxonomy.</p>	<p>For example, the content includes:</p> <ul style="list-style-type: none"> • a definition for each table; and • a default member for each axis.

