Working Draft of Reporting Manual for the preparation of Annual Financial Reports in Inline XBRL

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I. Glossary

abstract	An attribute of an element to indicate that the element is only used in a hierarchy to group related elements together. An abstract element cannot be used to tag data in an instance document.
AFR	Annual financial report. Regulated information defined in Article 4 of the Transparency Directive.
arcrole	Technical construct used in XBRL linkbases to identify the type of relationship between elements
attribute	A property of an element such as its name, balance, data type, period type and whether the element is abstract.
axis (pl. axes)	An instance document contains facts; an axis differentiates facts and each axis represents a way that the facts may be classified. For example, revenue for a period might be reported along with a business unit axis, a country axis, a product axis, and so forth.
balance	An attribute of a monetary item type element designated as debit, credit, or neither; a designation, if any, should be the natural or most expected balance of the element - credit or debit - and thus indicates how calculation relationships involving the element may be assigned a weight attribute (-1 or +1).
calculation relationships	Additive relationships between numeric items expressed using as summation-item arcrole and weight attribute.
context	Entity and fact-specific information (reporting period, segment/scenario information, and so forth) required by XBRL that allows tagged data to be understood in relation to other information.
dimension	XBRL technical term for axis.
domain	An element that represents a set of members sharing a specified semantic nature; the domain and its members are used to classify facts along the axis of a table. For example, "Lithuania" is a domain member in the domain "Member States," and would be used to classify elements such as revenues and assets in Lithuania as distinct from other Member States. When a fact does not have any domain member specified, that means it applies to the entire domain or to a default member of a domain set in the taxonomy.
domain member	An element representing one of the possibilities within a domain.

element	XBRL components (items, domain members, dimensions, and so forth). The representation of a financial reporting concept, including: line items in the face of the financial statements, important narrative disclosures, and rows and columns in tables.
ELR	Extended Link Role, a set of relations representing a particular piece of a report indicated by a role. Extended link roles are used in taxonomies to separate linkbases into smaller logical chunks.
extension taxonomy *or* extension	A taxonomy that allows users to add to a published taxonomy in order to define new elements or change element relationships and attributes (presentation, calculation, labels, and so forth) without altering the original.
ESEF taxonomy	The taxonomy set out in the RTS on ESEF
fact	The occurrence in an instance document of a value or other information tagged by a taxonomy element.
hypercube	XBRL technical term for a table.
Inline XBRL	Inline XBRL provides a mechanism for embedding XBRL tags in HTML documents. This allows the XBRL benefits of tagged data to be combined with a human-readable presentation of a report, which is under the control of the preparer.
label	Human-readable description for an element. Each element has a standard label that should correspond to the element name, and is unique across the taxonomy. Elements may have also other labels, in particular documentation labels containing more elaborate descriptions of the element's definition, meaning, scope and application.
line item	Line items normally represent the accounting concepts being reported. They are used to mark up numeric accounting information as well as qualitative (non-numeric) disclosures. Line items are stand-alone, but can be used either individually or in a table (in combination with axis and axis members).
linkbase	XBRL technical term for a relationships file.
namespace	A namespace is the "surname" of an element represented as a Universal Resource Identifier (URI) identifying the organization that maintains the element definition and its version. For example http://xbrl.ifrs.org/taxonomy/2017-03-09/ifrs-full is a namespace of the 2017 version of the FULL IFRS taxonomy defined by the IFRS Foundation.
parent-child relationship	Relationship between elements that indicates subordination of one to the other as represented in a print listing or financial statement presentation.

	Relationships files use parent-child hierarchies to model several different relationships, including presentation, particular cases of summation of a set of facts, and membership of concepts within a domain used as the axis of a table.
period type	An attribute of an element that reflects whether it represents a stock ('instant' in XBRL terminology) that is reported at a particular date or a flow ('duration') reported in a time period.
segment/ scenario	Components of contexts containing additional information to be associated with facts in an instance document; this information encompasses in particular the dimensional classifications or breakdowns defined by axes and domain members in taxonomies.
standard label	The default label for an element defined in a taxonomy.
table	An element that organizes a set of axes and a set of line items to indicate that each fact of one of the line items could be further characterized along one or more of its axes. For example, if a line item is 'Revenues' and an axis is 'Segments' and this axis has the following two domain members 'Reportable segments' and 'All other segments', the instance document could include facts representing revenues with break-downs for 'Reportable segments' and 'All other segments'.
tag or mark up (verb)	To apply tags to an instance document.
taxonomy, taxonomies	Electronic dictionary of business reporting elements used to report business data. A taxonomy is composed of a schema file or files (with extension .xsd) and relationships linkbase files (with extension .xml) directly referenced by that schema. The taxonomy schema files together with the relationships files define the concepts (elements) and relationships that form the basis of the taxonomy. The set of related schemas and relationships files altogether constitute a taxonomy.
type *or* data type	Data types (monetary, string, share, decimal, and so forth) define the kind of data to be tagged with the element name.
URI	Uniform Resource Identifier, is a string of characters used to identify a resource.
validation	Process of checking that instance documents and taxonomies correctly meet the rules of the XBRL specification.

II. Guidance

1 Guidance for issuers

1.1 Use of languages

Guidance 1.1.1 Language of labels

The RTS on ESEF does not alter the language regime set out in Article 20 of the TD. Therefore, the labels of the elements used for marking up the annual financial report including the issuers' extension taxonomy elements should be in the same language in which the annual financial report is prepared. Issuers are not required to provide labels in other languages. However, ESMA encourages issuers to provide, for the extension taxonomy elements, labels in a language customary in the sphere of international finance, as it would be highly beneficial for users.

1.2 Use of elements that are available in the IFRS Taxonomy but are not included in the ESEF taxonomy

Guidance 1.2.1 Issuers incorporated in third countries that apply IFRS standards or interpretations that are not yet adopted in the EU

The ESEF taxonomy reflects the endorsement status of the IFRSs in the European Union. If standards or interpretations are not yet endorsed for use in the Union, the taxonomy in the RTS on ESEF does not contain the elements of the IFRS Taxonomy that relate to these standards or interpretations.

Commission Decision 2008/961/EC provides that a third country issuer listed in the EU may prepare its consolidated financial statements in accordance with IFRS as issued by the International Accounting Standards Board ('IASB'). Therefore, such an issuer could apply standards or interpretations that are not yet endorsed for use in the Union. In such case, the issuer should create extension taxonomy elements relating to these standards or interpretations whose names and labels correspond to names and labels of elements available in the IFRS Taxonomy as issued by the IFRS Foundation.

Guidance 1.2.2 Use of common practice elements available in the IFRS Taxonomy that were not yet included in the ESEF taxonomy

The IFRS Foundation regularly updates the IFRS Taxonomy to include, among others, common practice elements. These elements relate to disclosures that the IFRS Foundation identified as frequently used across jurisdictions and entities and that are in conformity with the standards but not explicitly referred to in the standards or in the accompanying materials to the standard. If an issuer determines that the IFRS Taxonomy includes a common practice element that corresponds to a disclosure of the issuer in its IFRS financial statements and that this element is not yet included in the ESEF taxonomy, then the issuers should define an extension taxonomy element whose

name and label corresponds to name and label of the common practice element in the IFRS Taxonomy.

1.3 Selection of appropriate elements to mark up disclosures

Guidance 1.3.1 Use of labels to select appropriate elements

Element labels provide human-readable descriptions of the accounting meaning of a taxonomy element. Each element in the taxonomy has a standard label. Standard labels normally match the wording of the Standards. For common practice content, the standard label of an element normally reflects the wording that is most commonly used in practice or alternatively describes the accounting meaning of an element more precisely.

The standard label of an element is often longer and more detailed or may be phrased differently to the label being reported in practice within IFRS financial statements. This by itself is not a sufficient reason for an issuer to decide against using a particular taxonomy element. A preparer has to consider the accounting meaning of a taxonomy element when making this judgement. For example, a disclosure described by an entity as 'issue of share capital' and presented in the Statement of cash flows as a cash inflow could be marked up using the taxonomy line item with the standard label 'Proceeds from issuing shares'.

Furthermore, the line items, axes and members of the taxonomy files made available on ESMA's website have a documentation label, which provides a definition of the element. Moreover, they contain at least one cross-reference to the relevant Standard(s). The documentation label and the reference to the relevant Standard(s) should be considered to determine whether the accounting meaning of an element corresponds to a specific disclosure.

Guidance 1.3.2 Markup of disclosures if the ESEF taxonomy only contains an element that is wider in scope or meaning

It is possible and recommended to use an element in the ESEF taxonomy that is wider in scope or meaning than the marked up information if the marked up report does not contain another disclosure that fully or partially corresponds to the respective taxonomy element. For example, an issuer which discloses in its statement of cash flows an item that represents cash outflows relating to the purchase of property, plant and equipment and intangibles other than goodwill can use the taxonomy element 'purchase of property, plant and equipment, intangible assets other than goodwill, investment property and other non-current assets' to mark up the disclosure, even though the cash outflows do not relate to investment property or other non-current assets. This however is only appropriate if the issuer does not disclose in a separate item in the statement of cash flows cash outflows relating to the purchase of investment property or other non-current assets.

1.4 Anchoring

Guidance 1.4.1 Anchoring of extension elements to elements in the ESEF taxonomy that are wider in scope or meaning

Annex IV of the RTS on ESEF sets out that extension taxonomy elements always have to be anchored to elements of the ESEF taxonomy, except for elements corresponding to subtotals.

This principle can be illustrated with an example. An issuer issued equity and it received one part of the capital increase in kind and another part in cash. It disclosed in its statement of changes of equity the two components separately. The ESEF taxonomy includes an element 'issue of equity' but it does not include separate elements for capital increases in kind and capital increases in cash. Therefore, the issuer creates extension taxonomy elements 'capital increases in kind' and 'capital increases in cash'. Capital increases in kind and in cash are narrower in scope than the element 'issue of equity' and represent disaggregations of it. Therefore, the two extension elements are anchored to the wider base taxonomy element 'issue of equity'. It is not necessary to anchor the two extension taxonomy elements to narrower elements in the ESEF taxonomy.

Guidance 1.4.2 Anchoring of extension elements that are combinations

Annex IV of the RTS on ESEF sets out that where an extension taxonomy element combines a number of elements of the ESEF taxonomy, issuers shall anchor that extension taxonomy element to each of the elements in the ESEF taxonomy it combines, except where these elements are reasonably deemed insignificant.

This principle is best illustrated with an example. An issuer discloses in its IFRS statement of financial position an item 'issued capital and share premium'. The ESEF taxonomy does not include such an item. Therefore, it is necessary to create an extension taxonomy element. However, the taxonomy includes the elements 'issued capital' and 'share premium'. The extension taxonomy element represents a combination of the two elements that are available in the ESEF taxonomy. The extension taxonomy element 'issued capital and share premium' should be anchored to these two elements, indicating that it is wider in scope than these two elements.

1.5 Use of line items or domain members

Guidance 1.5.1 Determination of whether a disclosure should be marked up with a line item or a domain member

XBRL taxonomies contain line items and domain members which are both elements used to mark up disclosures. Line items normally represent the accounting concepts being reported. They are used to mark up numeric accounting information as well as qualitative (non-numeric) disclosures. Line items are stand-alone, but can be used either individually or in a table (in combination with axis and axis members).

Axes and domain members (also sometimes referred to as ‘axis members’ or ‘members’) are elements that are mainly used to disclose information for line items from different aspects, such as the disaggregation of the information for line items into different product types, categories, classes and maturities. The axis is the specific aspect being considered. An axis includes one or more components (called members) which share the common accounting or economic meaning defined by that axis.

For example, ‘revenue’ as a line item can be used to tag numbers that refer to various operating segments. In this case the ‘segments [axis]’ dimension can be applied to differentiate between revenues of the cars segment, using the element ‘cars [member]’ and of the motorcycles segment using the element ‘motorcycles [member]’. It is important to note that members and axes cannot be used on their own, but are used together with line items to mark up disclosures. Moreover, the same piece of information can be tagged using a line item only or a line item together with a dimension member. For example, the item ‘land and buildings’ in the statement of financial position can be marked up using the line item ‘land and buildings’ or using the line item ‘property, plant and equipment’ in conjunction with the domain members ‘land and buildings [member]’ of the axis ‘classes of property, plant and equipment [axis]’.

In order to facilitate consistent use of line items and domain members despite the flexibility offered by the XBRL standard, extension elements should be defined as line items unless the applicable taxonomy envisages in a particular statement or disclosure the use of domain members.

For example, the ESEF taxonomy contains two elements with the name ‘issued capital’, one is a line item and one is a domain member. The applicable taxonomy envisages that in the statement of financial position the line item is used, while in the statement of changes in equity the domain member should be applied.

1.6 Use of positive and negative values (signage)

Guidance 1.6.1 Use of positive and negative values

Line items should be assigned with an appropriate signage and balance attribute in order to correctly convey the meaning of the particular element. Most XBRL numeric elements are designed to be entered as positive values because they are designed from the perspective of the statement of financial position and the statement of profit or loss. Even if the XBRL element is related to a credit balance, the element should still be submitted as positive. By appropriately submitting XBRL numeric disclosures as positive values, issuers can ensure the accuracy of their calculation relationships.

In particular, elements representing assets should be assigned with the debit balance attribute value and reported as a positive figure. Similarly, the credit balance attribute value should be used for elements that represent equity and liabilities.

Revenue and other income should be defined using the credit balance attribute value and reported as a positive number. Elements representing costs and expenses should be assigned with the debit balance attribute value and reported as positive figures. In

the calculation linkbase, costs and expenses should be subtracted from revenues and other income.

Cash inflows reported in the cash flow statement should be defined as debit items and cash outflows as credit items and in both cases reported as positive figures.

1.7 Units of measure

Guidance 1.7.1 Use of standard units of measure

Each numeric tag must be associated with a unit of measure. To give consistency in the use of units of measure (e.g. EUR for Euro, GW for Gigawatt, km for Kilometre, etc.) in Inline XBRL instance documents, issuers should check in the XBRL specifications and unit registry whether a required unit exists before defining a custom unit. Custom unit measures should not be created if a standard unit defined in the XBRL Specification or XBRL unit registry[1] can be used.

2 Guidance for software firms to ensure technical validity

In the following section, ESMA provides software firms with recommendations on technical aspects and rules that should be supported by their tools to facilitate harmonised reporting by issuers. Furthermore, ESMA provides software firms with recommendations on which messages could be used to warn that a recommended rules is violated. ESMA would like to point out that the proposed rules below are not To arrange the content of this document clearer, the recommended rules and messages were identified in grey boxes and with red font.

2.1 Contexts

Guidance 2.1.1 Use of the LEI to identify the issuer

According to Annex IV of the RTS on ESEF, issuers shall identify themselves in the Inline XBRL instance document using ISO 17442 legal entity identifiers.

This should be implemented in such way that an xbrli:identifier element has a valid Legal Entity Identifier (LEI) as its content. The taxonomy files prepared by ESMA include validity checks of pattern and check sum digit of the LEI.

The scheme attribute of the xbrli:identifier element should have "http://standards.iso.org/iso/17442" as its content.

Example (from http://codes.eurofiling.info/):

```
<xbrli:entity>
    <xbrli:identifier
scheme=”http://standards.iso.org/iso/17442″>KGCEPHLVVKVRZYO1T647</xbrli:identifier>
<xbrli:entity>
```

[1] https://www.xbrl.org/utr/utr.xml

ESMA recommends software firms to include in their tools appropriate validations. The following messages are recommended to be used:

Messages: “invalidIdentifierFormat” and “invalidIdentifier”

Guidance 2.1.2 Formatting of the period element in the context of the XBRL instance document

ESMA recommends presenting the period element in the yyyy-mm-dd format, i.e. without the time component (an example of a period element including a time component would be: 2017-01-01T00:00:00:00). A time component is not expected to be necessary to tag annual reports. Moreover, it may result in inappropriate application and invalidity of defined calculation checks.

ESMA recommends software firms to include in their tools appropriate validations ensuring that:

The xbrli:startDate, xbrli:endDate and xbrli:instant elements all have data type which is a union of the xs:date and xs:dateTime types and that allow only the identification of periods using whole days, specified without a timezone.

The following messages are recommended to be used:

Messages: “periodWithTimeContent”, “periodWithTimeZone”

Guidance 2.1.3 Use of segment and scenario containers in the context elements of XBRL instance documents

The XBRL 2.1 specification defines two open containers in context elements of XBRL instance documents. These are xbrli:segment and xbrli:scenario. According to the XBRL Dimensions 1.0 specification, a taxonomy prescribes which of the two shall be applied in XBRL instance documents to contain dimension members.

ESMA recommends to use xbrli:scenario for this purpose, therefore ESMA encourages software firms to include in their tools appropriate validations ensuring:

Extension taxonomy MUST set xbrli:scenario as context element on definition arcs with *http://xbrl.org/int/dim/arcrole/all* and *http://xbrl.org/int/dim/arcrole/notAll* arcroles.

xbrli:segment container MUST NOT be used in contexts.

In case of violation, the following message is recommended to be used:

Violation: “segmentUsed”

When using the xbrli:scenario in contexts, it should not contain any content other than that defined in XBRL Dimensions specification. Consequently, custom XML should not be used in xbrli:scenario.

ESMA recommends software firms to include in their tools appropriate validations ensuring:

xbrli:scenario in contexts MUST NOT contain any other content than defined in XBRL Dimensions specification.

The following messages are recommended to be used:

Messages: “scenarioContainsNonDimensionalContent”

Guidance 2.1.4 The Inline XBRL instance document should only contain data of the issuer

It should be ensured that the Inline XBRL instance document contains data only of a single issuer.

ESMA recommends software firms to include in their tools appropriate validations ensuring:

All entity identifiers in contexts MUST have identical content

In case of violation, the following message is recommended to be used:

Violation: “multipleIdentifiers”

2.2 Facts

Guidance 2.2.1 Attributes to define the accuracy of numeric facts

There should be consistent use of a single attribute describing the precision of facts[2]. Therefore ESMA recommends software firms to include in their tools appropriate validations ensuring:

The accuracy of numeric facts SHOULD be defined with the ‘decimals’ attribute rather than the ‘precision’ attribute.

The following messages are recommended to be used:

Messages: “precisionAttributeUsed”

2.3 Footnotes

Guidance 2.3.1 Appropriate use of XBRL footnotes in the reports

XBRL footnotes may be used to provide additional information about the tagged data. The XBRL Specification and the XBRL Link Roles Registry define syntactical constructs and explain the semantics in the context of applying footnotes in instance documents.

[2] http://www.xbrl.org/WGN/precision-decimals-units/WGN-2017-01-11/precision-decimals-units-WGN-2017-01-11.html#inconsistent-levels-of-accuracy

It is not expected that any other syntax and semantics will be needed to provide footnotes included in the financial statements.

ESMA recommends software firms to include in their tools appropriate validations ensuring:

The xlink:role attribute of a link:footnote and link:loc element as well as xlink:arcrole attribute of a link:footnoteArc MUST be defined in the XBRL Specification 2.1.

In case of violation, the following message is recommended to be used:

Violation: “nonStandardRoleForFootnote”

Furthermore, the placeholder for footnotes should be restricted only to the expected content.

Therefore, ESMA recommends software firms to include in their tools appropriate validations ensuring:

A link:footnoteLink element MUST have no children other than link:loc, link:footnote, and link:footnoteArc.

In case of violation, the following message is recommended to be used:

Violation: nonStandardElementInFootnote”

Orphaned footnotes (i.e. footnotes that are not linked to any tagged data) may cause interpretation problems. ESMA therefore recommends software firms to include in their tools appropriate validations ensuring:

Every nonempty link:footnote element MUST be linked to at least one fact.

In case of violation, the following message is recommended to be used:

Violation: “unusedFootnote”

To enable automatic checks whether all footnotes in the report are provided in at least the language of the report, ESMA recommends software firms to include in their tools appropriate validations ensuring:

Each footnote MUST have the ‘xml:lang’ attribute whose value corresponds to the language of the text in the content of the respective footnote

In case of violation, i.e. missing ‘xml:lang’ attribute the following message is recommended to be used:

Violation: “undefinedLanguageForFootnote”

2.4 Restrictions on Inline XBRL constructs

Guidance 2.4.1 XBRL constructs that should be avoided

It is not expected that tuples nor fraction items are required to reflect the content of financial statements. Furthermore, application of the 'xml:base' attribute makes the processing of the Inline XBRL instance document more complex. Therefore these items should not be used unless strictly necessary. ESMA recommends software firms to include in their tools appropriate validations ensuring:

Tuples MUST NOT be defined in extension taxonomy

The ix:tuple and ix:fraction element and xml:base attributes MUST NOT be used in the Inline XBRL document.

In case of violation, the following messages are recommended to be used

Violation: "tupleElementUsed"

Violation: "fractionElementUsed"

Violation: "xmlBaseUsed"

2.5 Other content of Inline XBRL documents

Guidance 2.5.1 Inclusion of other content than XHTML and XBRL in the Inline XBRL document

As the inclusion of executable code is a potential threat and may cause security issues. ESMA therefore recommends software firms to include in their tools appropriate validations ensuring:

Inline XBRL documents MUST NOT contain executable code (e.g. java applets, javascript, VB script, Shockwave, Flash, etc) either in the HTML script element or elsewhere within the file.

In case of violation, the following message is recommended to be used:

Violation: "executableCodePresent"

ESMA is of the opinion that it would be beneficial to include images in the XHTML document unless their size exceeds support of browsers in which case they may be separate files.

ESMA therefore recommends software firms to include in their tools appropriate validations ensuring:

Images MUST be included in the XHTML document as a base64 encoded string unless their size exceeds support of browsers in which case they may be contained in separate files in the package.

In case of violation, the following message is recommended to be used:

Violation: “embeddedImageNotUsingBase64Encoding”

Images appearing within an Inline XBRL tag should not be referenced to external files regardless of their size. Therefore, ESMA recommends software firms to include in their tools the following rule ensuring:

Images appearing within an inline XBRL element MUST be embedded regardless of their size.

In case of violation, the following message is recommended to be used:

Violation: “imageInIXbrlElementNotEmbedded”

Guidance 2.5.2 Indication of the language used in textual mark ups

The ‘xml:lang’ attribute in the root of the instance document indicates in which language the report has been prepared. Each tagged text fact[3] should have an ‘xml:lang’ attribute whose value corresponds to the language of text in the content of a tag.

Each tagged text fact[4] should have an ‘xml:lang’ attribute that is assigned to the fact or inherited e.g. from the root element. Its value must correspond to the language of text in the content of a tag.

To enable automatic checks whether all tags in the report are provided in at least the language of the report, ESMA recommends software firms to include in their tools appropriate validations ensuring:

Each fact MUST have the ‘xml:lang’ attribute.

In case of violation, i.e. missing ‘xml:lang’ attribute, the following message is recommended to be used:

Violation: “undefinedLanguageForFact”

Guidance 2.5.3 Use of more than one target XBRL document for an Inline XBRL Document Set (IXDS)

Only one XBRL instance document is expected in a filing, therefore only one target XBRL document should be set for an IXDS. Therefore, ESMA recommends software firms to include in their tools a following rule ensuring:

Target attribute MUST not be used.

In case of violation, the following message is recommended to be used:

Violation: “targetAttributeUsed”

[3] As defined in http://www.xbrl.org/Specification/oim/CR-2017-05-02/oim-CR-2017-05-02.html#term-text-simple-fact.
[4] As defined in http://www.xbrl.org/Specification/oim/CR-2017-05-02/oim-CR-2017-05-02.html#term-text-simple-fact.

Guidance 2.5.4 Use of the Cascading Style Sheet (CSS) language to style Inline XBRL documents

CSS may be used to format the reports. However the transformations need to be used appropriately.

In order to limit the number of files submitted and encourage the reuse of styles in case of multi-file Inline XBRL documents, ESMA recommends software firms to include in their tools rules ensuring:

Where a single Inline XBRL document is filed the CSS MUST be embedded within the Inline XBRL document.

In case of violation, the following message is recommended to be used:

Violation: “externalCssFileForSingleIXbrlDocument”

Furthermore,

In case of multi-page Inline XBRL document they SHOULD be defined in a separate file.

In case of violation, the following messages are recommended to be used:

Violation: “embeddedCssForMultipleIXbrlDocuments”

3 Technical guidance for issuers and software firms on extension taxonomies and other topics

The following technical guidance is aimed at both issuers and software firms.

3.1 Extension taxonomy

Guidance 3.1.1 Required components of extension taxonomies and reference to the taxonomy files prepared by ESMA

According to the RTS on ESEF, issuers shall ensure that XBRL extension taxonomies contain the following structures:

a) Presentation and calculation linkbase, which group the elements and express arithmetic relationships between the used elements;

b) Label linkbase, which describes the meaning of each applied element;

c) Definition linkbase, which ensures dimensional validity of the resulting XBRL instance document against the taxonomy.

ESMA recommends software firms to include in their tools rules ensuring:

Extension taxonomies MUST consist of at least a schema file and presentation, calculation, definition and label linkbases.

Each linkbase type SHOULD be provided in a separate linkbase file.

The issuer's extension taxonomies SHOULD import the entry point of the taxonomy files prepared by ESMA.

In case of violation, the following messages are recommended to be used:

Violation: "extensionTaxonomyWrongFilesStructure"

Violation: "linkbasesNotSeparateFiles"

Violation: "requiredEntryPointNotImported"

3.2 Extension taxonomy elements

Guidance 3.2.1 Naming conventions for extension taxonomy elements

Extension taxonomy element names should represent the standard label of this element in the Label CamelCase Concatenation [LC3] convention[5] unless it violates XML element naming rules. This is to follow the conventions applied in the ESEF taxonomy and the underlying IFRS Taxonomy.

ESMA recommends software firms to include in their tools rules ensuring:

Extension taxonomy element name SHOULD follow the LC3 convention.

In case of violation, the following messages are recommended to be used:

Violation: "extensionTaxonomyElementNameDoesNotFollowLc3Convention"

Guidance 3.2.2 Data types to be used on extension concepts

The type attribute value of an extension concept shall reflect the type of information that is marked up in the Inline XBRL document.

To ensure consistency in the use of data types in issuers' extension taxonomies, extension taxonomy schemas should not define and apply on elements a custom type if a suitable type is already defined by the XBRL Specifications or in the XBRL data types registry[6]. Issuers should check the XBRL data types registry to see whether a required date type exists before they define a custom data type.

ESMA recommends software firms to include in their tools validation messages to facilitate the adherence to the following rule:

Extension taxonomy MUST NOT define a custom type if a matching type is defined by the XBRL Specifications or in the XBRL data types registry[7].

Specifically, domain members in extension taxonomies should be defined using the 'domainItemType' data type.

ESMA recommends software firms to include in their tools rules ensuring:

[5] http://www.xbrl.org/technical/guidance/FRTA-RECOMMENDATION-2005-04-25.htm#_2.1.4
[6] http://www.xbrl.org/dtr/dtr.xml
[7] http://www.xbrl.org/dtr/dtr.xml

Domain members MUST have domainItemType data type as defined in *http://www.xbrl.org/dtr/type/nonNumeric-2009-12-16.xsd*

In case of violation, the following messages are recommended to be used:

Violation: “domainMemberWrongDataType”

Guidance 3.2.3 Use of typed dimensions in issuers’ extension taxonomies

As it is allowed to extend the ESEF taxonomy, ESMA does not deem that it is necessary to define typed dimensions. Therefore, ESMA recommends not defining typed dimensions in the extension taxonomy, but creating explicit elements to tag information in the annual financial report instead.

ESMA recommends software firms to include in their tools rules ensuring:

Extension taxonomy SHOULD NOT define typed dimensions.

In case of violation, the following messages are recommended to be used:

Violation: “typedDimensionDefinitionInExtensionTaxonomy”

Guidance 3.2.4 Identification of extension taxonomy element

Every element is defined in a namespace represented as a Universal Resource Identifier (URI) that identifies the organization that maintains the element definitions. The elements included in the taxonomy files prepared by ESMA therefore include ESMA’s namespace. Also the creator of the extension taxonomy elements of an issuer should be identified by the issuer’s namespace.

ESMA recommends software firms to include in their tools rules ensuring:

The extension taxonomy namespace MUST identify the issuer.

Guidance 3.2.5 Definition of abstract concepts in extension taxonomies

In general, it is not required and ESMA therefore discourages issuers to define abstract concepts in their extension taxonomy. The abstract concepts included in the applicable taxonomy should be sufficient to structure the relationships in the presentation or definition linkbases. Nevertheless, should another grouping item be needed to better reflect the structures of elements used to tag information in the annual financial report, issuers might define abstract headers in the extension taxonomy.

ESMA recommends software firms to include in their tools rules ensuring:

Extension taxonomy SHOULD NOT define abstract concepts.

In case of violation, the following messages are recommended to be used:

Violation: “abstractConceptDefinitionInExtensionTaxonomy”

3.3 Extension taxonomy anchoring

Guidance 3.3.1 Relationships to anchor extension taxonomy elements to elements in the ESEF taxonomy

The RTS on ESEF sets out that extension taxonomy elements should be anchored to elements in the ESEF taxonomy and that the relationship between the extension taxonomy elements should be identified.

The RTS on ESEF distinguishes two different relationships:

- An extension taxonomy element has a narrower accounting meaning or scope than an element in the ESEF taxonomy. The issuer shall identify the relationship of the extension taxonomy element concerned with the element in the ESEF taxonomy concerned in the issuer's XBRL extension taxonomy's definition linkbase. The definition linkbase arc with arcrole 'http://www.esma.europa.eu/xbrl/esef/arcrole/wider-narrower' as defined in the taxonomy files prepared by ESMA should be used for this purpose. The extension taxonomy element shall appear as the target of the relationship.
- An extension taxonomy element has a wider accounting meaning or scope than an element in the ESEF taxonomy. The issuer shall identify the relationship of the extension taxonomy element concerned with the element in the ESEF taxonomy concerned in the issuer's XBRL extension taxonomy's definition linkbase. The definition linkbase arc(s) with arcrole 'http://www.esma.europa.eu/xbrl/esef/arcrole/wider-narrower' as defined in the taxonomy files prepared by ESMA should be used for this purpose. The extension taxonomy element shall appear as the source of the relationship or relationships.

Guidance 3.3.2 Where to define the anchoring relationships

It should be ensured that the anchoring relationships do not interfere with other content in the definition linkbase.

ESMA therefore recommends software firms to include in their tools rules ensuring:

Anchoring relationships MUST be defined in a dedicated extended link role (or roles if needed to properly represent the relationships), e.g. http://{issuer default pattern for roles}/Anchoring

Anchoring relationships MUST NOT be defined in an extended link role applying XBRL Dimensions relationship.

In case of violation, the following messages are recommended to be used:

Violation: "anchoringRelationshipsDefinedInElrContainingDimensionalRelationships"

3.4 Extension taxonomy linkbases

Guidance 3.4.1 Modelling of the issuers' extension taxonomies' linkbases

XBRL 2.1 specification enables to document in the calculation linkbase arithmetic relationships between elements referring to the same context, i.e. same period and identical dimensional qualifiers. Therefore, the calculation linkbase is limited to calculations with a single context.

However, the primary financial statements contain a number of cross-period arithmetic relationships that cannot be reflected in the calculation linkbase. An example for cross-period arithmetic relationships is the statement of cash flows where the sum of inflows and outflows of the period corresponds to the change of the cash balance from the beginning of the period to the end of the period. Another example is the statement of changes in equity that contains reconciliations between the carrying amount at the beginning and the end of the period for each component of equity.

As the calculation linkbase cannot be used to effectively define data quality checks on such cross-period relationships, the presentation linkbase should be used to document these cross-period and cross-dimension arithmetical dependencies which shall enable the execution of at least semi-automated validations.

The presentation linkbase should therefore, where possible, be constructed as follows:

Statement/Disclosure of changes in X [line items]
X at begging of period **(preferred period start label)**
Changes/Adjustments in X [abstract]
Increases/decreases in …
…
Total changes/adjustments in X **(preferred total label, if reported in the AFR)**
X at end of period **(preferred period end label)**

This applies in particular to the statement of changes in equity and the statement of cash flows, which typically contain cross period information and are required to be mandatorily tagged.

For example, the structure of the statement of changes in equity in the presentation linkbase may look as follows:

Statement of changes in equity [line items]
equity at beginning of period (periodStartLabel)
changes in equity [abstract]
comprehensive income
issued capital
dividends paid
equity at end of period (periodEndLabel)

This enables to carry out the following calculation check:

Equity at end of period = equity at beginning of period + comprehensive income + issued capital - dividends paid.

Mind that the sign of the operation depends on the values of the line items' balance attributes. In the example above, elements with their balance attribute set to credit are added to 'equity' (which is also credit) while debit elements (e.g. 'dividends paid') are subtracted. The plus sign is used in case a line item has no balance attribute (e.g. 'cash flows from (used in) operating activities').

Furthermore, parent-child relationships between domain members in presentation linkbases should be defined as if they were calculation linkbase links between line items (i.e., lower level elements contribute to upper level element with weight +1). If different weights apply, all domain members should be presented on the same level.

For example, the following structure in the presentations linkbase:

Equity [member]
- equity attributable to owners of parent [member]
  - issued capital [member]
  - share premium [member]
  - retained earnings [member]
- non-controlling interests [member]

informs that a line item (e.g. 'issued capital') referring to 'equity [member]' of 'components of equity [axis]' dimension equals the sum of this line item value for 'equity attributable to owners of parent [member]' and 'non-controlling interests [member]', etc. This rule concerns only the presentation linkbase. Definition linkbase relationships between domain members are used solely for dimensional validation purposes.

If different weight applies in calculation between domain members (e.g. '-1'), all domain members should be presented on the same level so that this check is not executed.

Guidance 3.4.2 Defining the dimensional validity of line items in the definition linkbase

Dimensional validation may be defined using 'all' and 'notAll' arcroles linking to positive and negative hypercubes respectively. In all cases, positive hypercubes are sufficient to define the dimensional validation. Although in some cases it may be more efficient to apply negative hypercubes, it is encouraged to use the positive hypercubes instead. To follow the recommendations of the XBRL Working Group note http://www.xbrl.org/WGN/dimensions-use/WGN-2015-03-25/dimensions-use-WGN-2015-03-25.html#sec-open-hypercube-validation-issues and http://www.xbrl.org/WGN/dimensions-use/WGN-2015-03-25/dimensions-use-WGN-2015-03-25.html#sec-negative-open-hypercubes, ESMA recommends software firms to include in their tools rules ensuring:

Extension taxonomies SHOULD NOT define definition arcs with *http://xbrl.org/int/dim/arcrole/notAll* arcrole.

Hypercubes appearing as target of definition arc with *http://xbrl.org/int/dim/arcrole/all* arcrole MUST have xbrldt:closed attribute set to "true".

Hypercubes appearing as target of definition arc with *http://xbrl.org/int/dim/arcrole/notAll* arcrole MUST have xbrldt:closed attribute set to "false".

In case of violation, the following messages are recommended to be used:

Violation: “notAllArcroleUsedInDefinitionLinkbase”

Violation: “openPositiveHypercubeInDefinitionLinkbase”

Violation: “closedNegativeHypercubeInDefinitionLinkbase”

Furthermore, each line item used in the report to tag data should be valid according to at least one hypercube in the extension taxonomy’s definition linkbase. To follow the recommendations of the XBRL Working Group note http://www.xbrl.org/WGN/dimensions-use/WGN-2015-03-25/dimensions-use-WGN-2015-03-25.html#sec-open-hypercube-recommendation ESMA recommends software firms to include in their tools rules ensuring:

Line items that do not require any dimensional information to tag data MUST be linked to “*Line items not dimensionally qualified”* hypercube in *http://www.esma.europa.eu/xbrl/esef/role/esef_role-999999* declared in *esef_cor.xsd*.

In case of violation, the following messages are recommended to be used:

Violation: “extensionTaxonomyLineItemNotLinkedToAnyHypercube”

Guidance 3.4.3 Definition of default members of extension taxonomy dimensions

To ensure the appropriate definition of default members, ESMA recommends software firms to include in their tools rules ensuring:

The extension taxonomy MUST not modify (prohibit and/or override) default members assigned to dimensions by the ESEF taxonomy.

Each dimension in an issuer specific extension taxonomy MUST be assigned to a default member in the ELR with role URI *http://www.esma.europa.eu/xbrl/esef/role/ifrs-dim_role-990000* defined in *esef_cor.xsd* schema file.

In case of violation, the following messages are recommended to be used:

Violation: “extensionTaxonomyOverridesDefaultMembers”

Violation: “extensionTaxonomyDimensionNotAssigedDefaultMemberInDedicatedPlaceholder”

Guidance 3.4.4 Use of preferred labels on presentation links in extension taxonomies

Extension taxonomies should apply preferred labels on presentation links when applicable. This concerns in particular total and period start and end labels. Extension concepts may be defined with and assigned to preferred labels.

3.5 Other issues

Guidance 3.5.1 References pointing to resources outside the reporting package

The Inline XBRL report should be a standalone, self-explanatory and complete set of information. Therefore, ESMA recommends software firms to include in their tools rules ensuring:

Inline XBRL instance documents MUST NOT contain any reference pointing to resources outside the reporting package.

In case of violation, the following messages are recommended to be used:

Violation: “inlinXbrlContainsExternalReferences”