

ESEF Taxonomy

Label Roles Generator for Languages

(other than English)

Special thanks and recognition is given to Javier Mora for having identified and provided guidance for this aspect of the ESEF 2017 Taxonomy

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Abstract:

The XBRL specification includes label linkbases to declare the “label” of an item in several languages. For example, the “label” for the item “ifrs-full:Assets” in English is “Assets”, and in French it is “Actifs”. Thanks to the “labels”, the ESEF 2017 taxonomy is provided both in English and in 22 additional local languages. Thanks to this flexibility, computers can publish the XBRL items in 23 different European languages. The European Commission and the IFRS Foundation publish identical labels for Englishⁱⁱ, whereas the European Commission publishes the labels for the other 22 languagesⁱⁱⁱ. The IFRS Foundation also publishes slightly different Hungarian and Spanish labels^{iv}.

The XBRL specification allows for the customization of each label for each of the Roles defined in XBRL. In our example, the Role “label” has the value “Assets”; the Role “totalLabel” has the value “Total assets”; the Role “periodStartLabel” is “Assets at beginning of period”, and the Role “periodEndLabel” is “Assets at end of period”. The base “label” is the same, but, for each particular Role, the “label” is slightly modified; in this case, by concatenating “Total” / “at the beginning of period” / “at end of period”.

In the ESEF taxonomy, the *label linkbase* defines 4610 “labels”, plus another 547 *labelRoles* that are qualified for particular Roles, in accordance with the following table:

label	4610	terseLabel	19	negatedTerseLabel	22
periodStartLabel	37	totalLabel	196	negatedTotalLabel	11
periodEndLabel	37	negatedLabel	186	netLabel	39

However, the ESEF 2017 taxonomy has defined the label-Role combinations for English only, but not for the other 22 local languages. In XBRL, when a label is missing for a particular Role, the label is presented in the default language (English usually). The *presentation linkbase* (indicating which label is to be used for each item in each statement) in a non-English local language fills the **missing Roles** with English labels, as is these independent cases in French (“negatedLabel”) or Greek (“totalLabel”):

IFRS	Prime d’émission	IFRS	Μη κυκλοφορούντα μη ταμειακά περιουσιακά στοιχεία που
IFRS	Treasury shares	IFRS	Total non-current assets
IFRS	Autres capitaux propres	IFRS	Κυκλοφορούντα περιουσιακά στοιχεία [abstract]

Treasury presentation (French) *Non-current assets presentation (Greek)*

The following pages describe each Role, case by case, with the recommended solution. The last part of this document is the Instructions Handbook for the open source program ESEF Label Linkbase Generator, which takes the 23 ESEF label linkbase files and generates a directory with the 22 non-English label linkbase files, including the missing, label Roles, properly generated as described in this document.

Roles: periodStartLabel / periodEndLabel

In English, the string for the Role “periodStartLabel” and “periodEndLabel” is the same string for the Role “label”, but concatenated with “at beginning of period” and “at end of period”. See below:

- Assets
- Assets at beginning of period
- Assets at end of period

Recommendation:

Generate the missing label-Roles by concatenating the “label” string and the suffixes “[at beginning of period]” / “[at end of period]” (or equivalent in the local language, if available), in the “label” string of each language¹.

- Actifs
- Actifs à l'ouverture de la période
- Actifs à la clôture de la période

¹ French translation of “at beginning of period” / “at end of period” taken from IFRS taxonomy 2009 published at: <https://www.ifrs.org/issued-standards/ifrs-taxonomy/ifrs-taxonomy-translations/>

Role: terseLabel

In all the English cases, the string with the Role “terseLabel” is the same string as the Role “label”, but without the trailing concept after the comma. See the following four sample patterns:

“label”:

- Interest received, *classified as investing activities*
- Dividends received, *classified as operating activities*
- Other expenses, *by nature*
- Other inflows (outflows) of cash, *classified as financing activities*

“terseLabel”:

- Interest received
- Dividends received
- Other expenses
- Other inflows (outflows) of cash

Recommendation:

Generate the missing “terseLabel” label-Role by dropping the trailing string of the “label” string after the comma, as in.

- Intérêts reçus, *classés dans les activités d’investissement*
- Intérêts reçus

However, in some non-English cases, the “label” string has not a comma. In these cases, where the “terseLabel” cannot be algorithmically deducted, clone the “label” string without any modification, as in the following DE cases:

- (EN) Other inflows (outflows) of cash, *classified as financing activities*
- (EN) Other inflows (outflows) of cash
- (DE) Sonstige als Finanzierungstätigkeiten eingestufte Mittelzuflüsse (Mittelabflüsse)
- (DE) Sonstige als Finanzierungstätigkeiten eingestufte Mittelzuflüsse (Mittelabflüsse)
- (EN) Other inflows (outflows) of cash, *classified as investing activities*
- (EN) Other inflows (outflows) of cash
- (DE) Sonstige als Investitionstätigkeiten eingestufte Mittelzuflüsse (Mittelabflüsse)
- (DE) Sonstige als Investitionstätigkeiten eingestufte Mittelzuflüsse (Mittelabflüsse)

Role: totalLabel

In English, the string with the Role “totalLabel” is the same as the string with Role “label” with or without a prefix, as seen in one of the three following patterns:

(a) Identical value:

- Other comprehensive income, before tax, available-for-sale financial assets
- Profit (loss)

(b) Prefix with “Total ”

- Assets
- *Total assets*

(c) Prefix with “Aggregate ”

- Current and deferred tax relating to items credited (charged) directly to equity
- *Aggregate* current and deferred tax relating to items credited (charged) directly to equity

Recommendation:

Generate the missing labelRole by detecting the English “label” and “totalLabel” pattern:

(a) If the “label” string is identical to “totalLabel”, then clone the “label” as “totalLabel”.

(b) If the “label” string is the “totalLabel” without the prefix “Total ”, then generate the “totalLabel” by the concatenation of “[Total] ” (or equivalent in the local language) and “label” string. (Note: If the first letter of “label” is in upper case, which is the usual, then change it to the lower case).

- Actifs courants
- [*Total*] actifs courants

(c) If the “label” is the “totalLabel” without the prefix “Aggregate ”, generate the “totalLabel” by the concatenation of “[Aggregate] “ (or its equivalent in the local language) and the string of “label”. (Note: If the first letter of “label” is in upper case, which is the usual, then change it to the lower case).

- Impôt exigible et impôt différé relatif aux éléments directement crédités (débités) dans les capitaux propres
- [*Aggregate*] *i*mpôt exigible et impôt différé relatif aux éléments directement crédités (débités) dans les capitaux propres

Role: negatedLabel

In English, the string with the Role “label” is the same string as the Role “negatedLabel”, with or without a permutation, in accordance with one of the three following patterns:

(a) Identical value for “label” and “negatedLabel” (with or without parenthesis in the string).

- Administrative expenses
- Payments from plan, net defined benefit liability (asset)

(b) String with parenthesis, but not the same value for “label” and “negatedLabel”, and a single word inside the first parentheses: The permutation is between the word to the left of the first parenthesis and the word inside the first parenthesis. Ignore remaining parentheses. Note also, if required in the generated string, then the first letter is written in upper case and the first letter inside the parentheses is written in lower case, according to editing rules.

- Gains (losses) recognised in profit or loss, fair value measurement, liabilities
- **Losses** (*gains*) recognised in profit or loss, fair value measurement, liabilities
- Actuarial gains (losses) arising from changes in demographic assumptions, net defined benefit liability (asset)
- Actuarial *losses* (*gains*) arising from changes in demographic assumptions, net defined benefit liability (asset)

(c) String with parenthesis and not the same value for “label” and “negatedLabel”, and several words inside the first parenthesis: The variation is between the string before the first parenthesis and the string inside the first parenthesis. Ignore remaining parentheses. Note also, if required in the generated string, the first letter is written in upper case and the first letter inside the parentheses is written in lower case, according to editing rules.

- Impairment loss (reversal of impairment loss) recognised in profit or loss
- *Reversal of impairment loss* (*impairment loss*) recognised in profit or loss

Recommendation:

Generate the missing label-Role by studying the pattern in English, differentiating between “label” and “negatedLabel” strings:

(a) If the “label” is identical to the “negatedLabel”, then clone the “label” as “negatedLabel”.

(b) If the first parenthesis has a single word inside, then permute the word just at the left of the first parenthesis with the word inside the first parenthesis. When needed, put the first letter of the label in upper case and the first letter inside the parenthesis in lower case.

- Profits (pertes) comptabilisés en résultat, évaluation de la juste valeur, passifs
- **Pertes (profits)** comptabilisés en résultat, évaluation de la juste valeur, passifs
- Écarts actuariels découlant de changements dans les hypothèses démographiques, passif (actif) net au titre de prestations définies
- Écarts actuariels découlant de changements dans les hypothèses démographiques, *actif (passif)* net au titre de prestations définies

(c) If the first parenthesis has several words inside, then permute² the string at the left of the first parenthesis with the string inside the first parenthesis. Put the first letter of the label in upper case and the first letter inside the parenthesis in lower case.

- Perte de valeur (reprise de perte de valeur) comptabilisée en résultat
- **Reprise de perte de valeur (perte de valeur)** comptabilisée en résultat

² Note the particular case of the “negatedLabel” in French “Perte de valeur (y compris les reprises de pertes de valeur ou gains de valeur) établie conformément à IFRS 9”, to be permuted as “Compris les reprises de pertes de valeur ou gains de valeur (perte de valeur) établie conformément à IFRS 9”. In these cases, the permutation is without the letter “y” following the open parentheses.

Role: negatedTerseLabel

In English, the string with the Role “negatedTerseLabel” is the same string as the Role “label” without the trailing concept, starting with the comma. The procedure is identical to the Role “**terseLabel**”.

- Dividends paid, *classified as financing activities*
- Dividends paid

If the resulting string has a parenthesis, then follow the same procedure as described for “negatedLabel”.

- Income taxes paid (refund), *classified as financing activities*
- Income taxes *refund (paid)*

Recommendation:

Generate the missing label-Role:

(a) Drop (if it exists) the trailing concept (string) of the “label” after the comma:

- Dividendes versés, *classés dans les activités de financement*
- Dividendes versés

(b) If the trailing string has also a parenthesis, then follow the same procedure as described for “negatedLabel”

- Impôts sur le résultat payés (remboursés), *classés dans les activités de financement*
- Impôts sur le résultat *remboursés (payés)*

Role: negatedTotalLabel

In English, the string with the Role “totalLabel” is the same string as the Role “label”, plus, in some cases, the prefix “Total” or “Aggregate”. Then follow the same procedure as described for “**totalLabel**”.

- Fee and commission expense
- *Total fee* and commission expense

However, (in a particular case) if the string in the “label” has a parenthesis, then follow also the same procedure as described for “**negatedLabel**”.

- Gain (loss) on remeasurement, net defined benefit liability (asset)
- *Total loss (gain)* on remeasurement, net defined benefit liability (asset)

Recommendation:

Generate the missing label-Role as:

(a) Follow the same procedure as in “**totalLabel**”:

- Charges d’honoraires et de commissions
- *[Total] charges* d’honoraires et de commissions

(b) If the resulting string also has a parenthesis, then follow the same procedure as described for “**negatedLabel**”

- Profit (perte) de réévaluation, passif (actif) net au titre de prestations définies
- *[Total] perte (profit)* de réévaluation, passif (actif) net au titre de prestations définies

Role: netLabel

In English, the string with the Role “totalLabel” is the same string as the Role “label”, with or without a prefix, according to one of the two following patterns:

(a) Identical value:

- Gross profit
- Rental income from investment property, net of direct operating expense

(b) Prefix with “Net “

- Cash flows from (used in) financing activities
- *Net* cash flows from (used in) financing activities

Recommendation:

Generate the missing label-Role by observing the pattern in English, differentiating between “label” and “netLabel” strings:

(a) If the “label” string is identical to “totalLabel”, then clone the “label” string as “totalLabel”

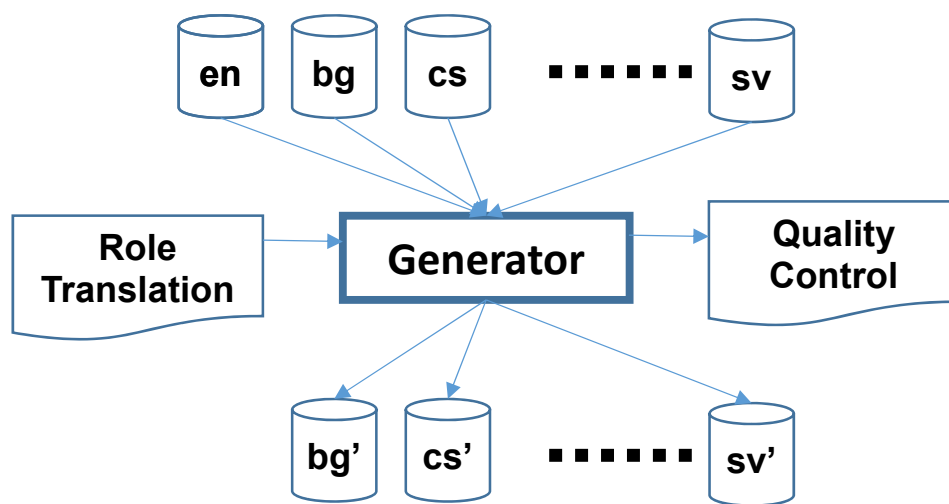
(b) If the “label” string is the “netLabel” without the prefix “Net”, then generate the “netLabel” by the concatenation of “[Net] ” (or its equivalent in the local language) and the string of “label”. (Note: If the first letter of “label” is in upper case, which is usual, then change it to lower case).

- Flux de trésorerie résultant (utilisés dans le cadre) des activités
- [*Net*] flux de trésorerie résultant (utilisés dans le cadre) des activités

ESEF Label Linkbase Generator

Instructions Handbook (Version dated 2019-11-09)

The ESEF Label Linkbase Generator is an Excel VBA program with an Input of ESEF label linkbase files, plus optional Role translations for each language, and an Output of non-English files extended with the missing label Roles generated, plus Quality Control.



Input:

- A directory with ONLY the English XBRL label linkbase file and up to 24 Non-English XBRL label linkbase files
- Sheet “Labels” with up to consecutive 25 columns.
 - Column 1 and 2: Captions for English label Roles. Do not modify.
 - Column 3 up to 24. **TO BE CUSTOMIZED**
 - Row 1: ISO code of the language (e.g. *FR*)
 - Row 2-6: Optional translations for this language, for these captions:
Total, Aggregate, Net, at beginning of period, at end of period

Output

- Subdirectory “GeneratedFiles” with a copy of each input non-English XBRL label linkbase file, expanded with the missing labelRoles, generated as described hereby.
- The sheet “Labels” with results and Quality Control.

Process:

- Open and click in “Run”. Select the English label linkbase file. See the results.

Sheet “Labels” Input:

Rows 1-5: Column 3 up to column 24

- Row 1: ISO code of the language (e.g. FR)
- Row 2-6: Optional translations for this language of these captions:
Total, Aggregate, Net, at beginning of period, at end of period

Row 1:

Each language is assigned a two-letter (ISO 639-1) abbreviation, without regard to being in lowercase or uppercase. See the list at:

https://en.wikipedia.org/wiki/List_of_ISO_639-1_codes

The columns in row 1 must be consecutive, left to right, in no particular order, starting in column 2. The first empty column after column 2, signifies the end of the languages.

The column 2 is reserved for English (EN), not to be modified.

Rows 2-6:

Optional translations for the language of these captions:

Total, Aggregate, Net, at beginning of period, at end of period

If the translation of a caption for a language is NOT provided, then the default is the respective English caption between brackets, following the ESEF approach for captions such as [table] [abstract] and so on, as follows:

[Total] [Aggregate] [Net] [at beginning of period] [at end of period]

The order of concatenation for the caption relative to the original “label” string is:

- Left concatenated, followed by a space: *[Total] [Aggregate] [Net]*
- Right concatenated, preceded by a space: *[at beginning of period] [at end of period]*

Sheet “Labels” Output:

Rows 7-15: Count of occurrence for this label Role for this language, by columns

Run	EN	BG	CS	DA	DE	EL	ES	ET
To be replaced by	Total				[Summe]		Total	
To be replaced by	Aggregate				[Gesamte]		[Suma de]	
To be replaced by	Net				[Netto]		[Neto]	
Info: Qnames of input records of Role	at beginning of period				[Beginn der Periode]		al comienzo del periodo	
To be replaced by	at end of period				[Ende der Periode]		al final del periodo	
label	4604	4610	4610	4610	4610	4610	4609	4610
netLabel	39	39	39	39	39	39	39	39
negatedLabel	186	186	186	186	186	186	186	186
negatedTerseLabel	22	22	22	22	22	22	22	22
negatedTotalLabel	11	11	11	11	11	11	11	11
periodEndLabel	37	37	37	37	37	37	37	37
periodStartLabel	37	37	37	37	37	37	37	37
terseLabel	19	19	19	19	19	19	19	19
totalLabel	196	196	196	196	196	196	196	196

Rows 16-30: Warnings and Info

Warning: Missing comma in string Role[label] for the following pairs (Language:Row) (DA:322,324,325) (DE:62,172,228,230,298,327,328)
Warning: Value empty in string Role[label] for the following pairs (Language:Row) (EL:1071)
Warning: Missing input record of Role[label] for the following pairs (Language:Row) (ES:1072) (RO:1073)
Warning: Missing parentheses in string Role[label] for the following pairs (Language:Row) (HU:224) (SV:100)
Info: Qnames of input records of Role[label] are NOT declared in English for the Rows (1065,1066,1067,1068,1069,1070)

Rows 31 onwards:

Column 1 as “Role” caption: List of label strings generated for this Role caption, for each language (see the language in the Row 1 of the column)

Run	EN	BG	CS	DA	DE	EL	ES
label	Additions other than	Добавки, различни	Přírůstky s výjimkou	Tilgange, bortset fra	Zugänge außer im	Προσθήκες πλην	Adiciones distintas
totalLabel	Total additions other than	[Total] добавки, р	[Total] přírůstky s vý	[Total] tilgange, bc	[Summe] zugänge	[Total] προσθήκες	Total adiciones distintas
label	Amounts removed	Суми, извадени от	Částky, které byly	Beløb, som fjernes	Aus Eigenkapital	Ποσά που αφαιρούνται	Importes eliminados
negatedLabel	Amounts removed	Суми, извадени от	Částky, které byly	Beløb, som fjernes	Aus Eigenkapital	Ποσά που αφαιρούνται	Importes eliminados
label	Adjustments to reconcile	Корекции за равни	Úpravy za účelem	Regulering til afstem	Anpassungen zur	Προσαρμογές για	Ajustes para conciliar
totalLabel	Total adjustments	[Total] корекции за	[Total] úpravy za úč	[Total] regulering til	[Summe] anpassun	[Total] προσαρμογές	Total ajustes para

Column 1 as “Qname” or FileEntry. Identifier for Warning or Info (Rows 16-30).

Qname	esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800100SubclassificationsOfAssetsLiabilitiesAndEquities
Qname	esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800200AnalysisOfIncomeAndExpense
Qname	esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800300StatementOfCashFlowsAdditionalDisclosures
Qname	esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800400StatementOfChangesInEquityAdditionalDisclosures
Qname	esef_cor.xsd#esef_cor_LineItemsNotDimensionallyQualified
Qname	esef_cor.xsd#esef_cor_NotesAccountingPoliciesAndMandatoryTags
FileEntry	<link:label xlink:type="resource" xlink:role="http://www.xbrl.org/2003/role/label" xml:lang="el" xlink:label="label

Quality Control

Rows 16-30: Warnings and Info

Texts referencing specific Rows and identifying each particular case, as follows:

Warning: Missing comma in string Role[label] for the following pairs (Language:Row) (DA:322,324,325) (DE:62,172,228,230,298,327,328)		
Warning: Value empty in string Role[label] for the following pairs (Language:Row) (EL:1071)		
Warning: Missing input record of Role[label] for the following pairs (Language:Row) (ES:1072) (RO:1073)		
Warning: Missing parentheses in string Role[label] for the following pairs (Language:Row) (HU:224) (SV:100)		
Info: Qnames of input records of Role[label] are NOT declared in English for the Rows (1065,1066,1067,1068,1069,1070)		

The Warnings are usually related with discrepancies between the pattern of the English string for a “label” and the pattern of the same “label” string in other language, when the discrepancy prevent the algorithmic generation of the Role. For instance, terseLabel with comma in English and missing comma in a non-English language, or negatedLabel with parentheses in English and missing parentheses in a non-English language. Also a “label” existing in English and missing in a non-English language.

In needed, each Warning occurrence could be fixed by a case-by-case manual edition (or reconstruction) of the original label linkrole file entry.

The Info texts are for informative purposes only. No action is suggested.

Warning: Missing comma in string Role[label] for the following pairs (Language:Row)
(DA:322,324,325) ... (FR:234)

233	label	Tax expense (income), <i>continuing operations</i>
233	(column FR)	Charges (produits) d'impôt au titre d'activités poursuivies
234	negatedTerseLabel	Tax income (expense)
234	(column FR)	Produits (charges) d'impôt au titre d'activités poursuivies

This warning applies both to terseLabel and negated TerseLabel. In the example, the English string for "label" has a comma, while the French string for the same "label" has not a comma. The right part of the string (after the comma) is dropped in English. However, as the comma is missing for the French language, the "negatedTerseLabel" string cannot be algorithmically reduced to "terse" form. In this row 233, a preferable correct reconstruction of the "original" French string should include a comma, following the pattern of the similar "negatedTerseLabel" in row 231, as follows:

231	(column FR)	Impôts sur le résultat payés (remboursés), <i>classés dans les activités opérationnelles</i>
232	(column FR)	Impôts sur le résultat remboursés (payés)
233	(column FR)	Charges (produits) d'impôt, <i>au titre d'activités poursuivies</i>
234	(column FR)	Produits (charges) d'impôt

Warning: Missing parentheses in string Role[label] for the pairs (Language:Row)
(HU:224) (SV:100)

223	label	Impairment loss (reversal of impairment loss) recognised in profit or loss
223	(column HU)	Eredményben elszámolt vagy visszaírt értékvesztés miatti veszteség
224	negatedLabel	Reversal of impairment loss (impairment loss) recognised in profit or loss
224	(column HU)	Eredményben elszámolt vagy visszaírt értékvesztés miatti veszteség
99	label	Decrease (increase) in inventories of finished goods and work in progress
99	(column SV)	Förändring av lager av färdiga varor och produkter i arbete
100	negatedLabel	Increase (decrease) in inventories of finished goods and work in progress
100	(column SV)	Förändring av lager av färdiga varor och produkter i arbete

This warning applies to negatedLabel, negatedTerseLabel and negatedTotalLabel. In the example, the English string for "label" has parentheses (and a variation for the "negated" Role), while the Hungarian and Swedish strings do not have any parentheses. No permutation is algorithmically possible without parentheses.

Warning: Value empty in string Role[label] for the following pairs (Language:Row)
(EL:1071)

1071 (label line with premature end):
.....AreRecognisedFairValueMeasurementAssets"/>

The declaration in the EL file should be instead:
.....AreRecognisedFairValueMeasurementAssets">....*label string here*....</link:label>

This “label” declaration is empty for the language Greek. No algorithmic remediation is possible. However, note the European Commission has published a Greek translation for this label.

Note the Role “label” is the only Role in this case

Warning: Missing input record of Role[label] for the following pairs (Language:Row)
(ES:1072) (RO:1073)

1072 label Disclosure of detailed information about investment property [abstract]
1073 label Description of identity of rate regulator(s)

These “label” declarations lack of translation in both Spanish and Romanian respectively. No algorithmic remediation is possible. However, note the European Commission has published the Spanish and Romanian translations for these labels.

Note the Role “label” is the only Role in this case.

Info: Qnames of input records of Role[label] are NOT declared in English for the Rows (1065,1066,1067,1068,1069,1070)

1065 Qname esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800100
SubclassificationsOfAssetsLiabilitiesAndEquities

1066 Qname esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800200
AnalysisOfIncomeAndExpense

1067 Qname esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800300
StatementOfCashFlowsAdditionalDisclosures

1068 Qname esef_cor.xsd#esef_cor_ItemsAreFurtherDetailedInSection800400
StatementOfChangesInEquityAdditionalDisclosures

1069 Qname esef_cor.xsd#esef_cor_LineItemsNotDimensionallyQualified

1070 Qname
esef_cor.xsd#esef_cor_NotesAccountingPoliciesAndMandatoryTags

These Qnames are the ESMA extensions of IFRS, and therefore not recognized as part of the public IFRS Taxonomy. The “label” strings for these Qnames are in the file “esef_cor-lab-en.xml”.

In the same file, also there are label re-definitions for:

- ifrs-full_IncomeStatementAbstract
- ifrs-full_StatementOfCashFlowsAbstract
- ifrs-full_StatementOfChangesInEquityAbstract
- ifrs-full_StatementOfComprehensiveIncomeAbstract
- ifrs-full_StatementOfFinancialPositionAbstract

Info: The following Rows are input records of Role[label] are published in English only.

Case not detected. All the English Role[label] have been translated to the other 22 Non-English languages, with the aforementioned warnings.

Conclusions:

1. All the ESEF labels are defined in the 23 European languages in official publications.
2. The XBRL standard defines how to use labels for each language. Each “original label” may have variations for different uses, so the XBRL standard defines labelRoles (related to the original label) for different purposes, of which ESEF uses: *label*, *netLabel*, *negatedLabel*, *negatedTerseLabel*, *negatedTotalLabel*, *periodEndLabel*, *periodStartLabel*, *terseLabel*, *totalLabel*
3. The ESEF 2017 taxonomy uses the labelRole “*label*” 4610 times (observed in all the languages) and the other labelRoles 547 times (but only observed in English). When a particular language is missing in a labelRole, the English definition is the usual default.
4. The labelRoles, other than “label”, are usually provided in the translation. However, this is not the case for ESEF, which is based only on the EU Official Journal for “label” only.
5. The missing labelRoles are prone to be generated algorithmically during the ESEF taxonomy building process, as described in the procedures.
6. This algorithmic labelRole generation can be re-run for future annual ESEF taxonomies, with minimal adaptations.
7. The authors have developed the Open Source Label Roles Generator for the taxonomy ESEF 2017, achieving the results predicted in the described recommendations.

Explanatory Annex.

(Excerpts from an internal message of Javier Mora, dated Oct 31, 2019)

When the ESEF taxonomy is loaded in an XBRL tool, we can choose to view the labels in any of the 23 languages available in the ESEF taxonomy. If we choose English, all the labels are in place and everything looks good. For example, let's look at the "[210000] Statement of financial position, current/non-current". See image below:

Element	pref. label
P. Presentation Link	
[210000] Statement of financial position, current/non-current	
Statement of financial position placeholder - this item MUST be used	
Items are further detailed in section [800100] Subclassifications of	
Assets [abstract]	
Equity and liabilities [abstract]	
Equity [abstract]	
Issued capital	
Retained earnings	
Share premium	
Treasury shares	negatedLabel (*)
Other equity interest	
Other reserves	
Total equity attributable to owners of parent	totalLabel
Non-controlling interests	
Total equity	totalLabel
Liabilities [abstract]	
Non-current liabilities [abstract]	
Non-current provisions [abstract]	
Non-current provisions for employee benefits	
Other non-current provisions	
Total non-current provisions	totalLabel

The problem arises when we choose any of the non-English 22 languages available. Let's choose, for example, Spanish. It looks like:

Element	pref. label
P. Presentation Link	
[210000] Estado de situación financiera, corriente / no corriente	
Marcador del estado de situación financiera; este elemento DEBE utilizarse	
Los elementos están más explicados en la sección [800100] Subcl	
Activos [resumen]	
Patrimonio neto y pasivo [resumen]	
Patrimonio neto [resumen]	
Capital emitido	
Reservas por ganancias acumuladas	
Prima de emisión	
ifrs-full:TreasuryShares	negatedLabel (*)
Otras participaciones en el patrimonio	
Otras reservas	
ifrs-full:EquityAttributableToOwnersOfParent	totalLabel
Participaciones no dominantes	
ifrs-full:Equity	totalLabel
Pasivos [resumen]	
Pasivos no corrientes [resumen]	
Provisiones no corrientes [resumen]	
Provisiones no corrientes por retribuciones a los emp	
Otras provisiones no corrientes	
ifrs-full:NoncurrentProvisions	totalLabel

Why are these 4 elements not represented properly? It's because in the ESEF taxonomy, similar to the IFRS taxonomy, the preferred label of these elements is not the standard one (*label*). The ESEF taxonomy has not translated all the labels where the

label roles are different from the standard one (*label*); e.g., *totalLabel*, *periodStartLabel*, *periodEndLabel*, *negatedLabel*, *negatedTerseLabel*, *netLabel*, etc.

The XBRL standard allows for elements to have several labels for the same language, e.g., the element “Equity” in English has 4 different labels, one for each label role. See image below.

Label	role
Equity	label
Total equity	totalLabel
Equity at beginning of period	periodStartLabel
Equity at end of period	periodEndLabel

The preferred label is defined in the presentation linkbase and this is the mechanism to choose the label role for every element. When an element has no preferred label, the standard role (*label*) is the one visualized.

For the current ESEF taxonomy translations to the 22 non-English languages, the only label role that has been translated is the standard one (*label*); all translations for other labels roles are missing. Please find attached to this email an Excel document representing the ESEF Illustrated Taxonomy, as presented in the recent [Eurofiling Conference 2019 in Frankfurt](#). In the Excel document, you will find **highlighted in yellow** all the labels that are not properly visualized in XBRL tools due to the lack of translation of the label roles which are not the standard role (*label*). In these cells, we’ve decided to include the English translation instead of the *id* of the element. The impact of these missing translations results in 635 cells per language, and taking into consideration that the ESEF taxonomy has 22 non-English translations, the final number of missing translations is 13,970.

Does it mean that the solution is to translate 13,970 new labels? The answer is no. 13,970 is the total number of cells that currently cannot be viewed properly, but:

1. Some missing label role translations appear more than once in the ESEF taxonomy, i.e., “Total equity” occurs 2 times.
2. Sometimes a different role doesn’t mean a different label, for example:

Label	role
Treasury shares	label
Treasury shares	negatedLabel (*)

So, the solution is to translate to 22 languages the new labels that have been never been translated (e.g. “Total equity”) because the XBRL tools are not going to be able to make these translations.

Indeed, the IFRS 2017 taxonomy already has the Spanish and Hungarian translations for these missing label roles.

Element	pref. label
P Presentation Link	
[210000] Estado de situación financiera, corriente/no corriente	
Estado de situación financiera [resumen]	
Activos [resumen]	
Patrimonio y pasivos [resumen]	
Patrimonio [resumen]	
Capital emitido	
Ganancias acumuladas	
Prima de emisión	
Acciones propias en cartera	negatedLabel (*)
Otras participaciones en el patrimonio	
Otras reservas	
Total patrimonio atribuible a propietarios de la controladora	totalLabel
Participaciones no controladoras	
Patrimonio total	totalLabel
Pasivos [resumen]	
Pasivos no corrientes [resumen]	
Provisiones no corrientes [resumen]	
Provisiones no corrientes por beneficios a los empleados	
Otras provisiones no corrientes	
Total provisiones no corrientes	totalLabel

For the above screenshots, we have used Fujitsu XWand, but you can check the same results by using a different XBRL tool like the free online XBRL tool Bigfoot from CoreFiling (<https://www.linkedin.com/feed/update/activity:651912810070444416/>).

ESEF taxonomy (English labels)

ESEF taxonomy (Spanish labels)

Network: Presentation Lang: en

- [210000] Statement of financial position, current/non-current
 - Statement of financial position placeholder - this item MUST be used
 - Items are further detailed in section [800100] Subclassifications of assets and liabilities
 - Assets [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
 - Liabilities [abstract]
 - Non-current liabilities [abstract]
 - Non-current provisions [abstract]
 - Non-current provisions for employee benefits
 - Other non-current provisions
 - Total non-current provisions
 - Trade and other non-current payables
 - Deferred tax liabilities
 - Current tax liabilities, non-current
 - Other non-current financial liabilities
 - Other non-current non-financial liabilities
 - Total non-current liabilities

Network: Presentation Lang: es

- [000000] Tags that must be applied if corresponding information is presented
- [110000] General information about financial statements
- [210000] Statement of financial position, current/non-current
 - Marcador del estado de situación financiera: este elemento DEBE utilizarse
 - Los elementos están más explicados en la sección [800100] Subclasificación de activos y pasivos
 - Activos [resumen]
 - Patrimonio neto y pasivo [resumen]
 - Patrimonio neto [resumen]
 - Capital emitido
 - Reservas por ganancias acumuladas
 - Prima de emisión
 - TreasuryShares
 - Otras participaciones en el patrimonio
 - Otras reservas
 - EquityAttributableToOwnersOfParent
 - Participaciones no dominantes
 - Equity
 - Pasivos [resumen]
 - Pasivos no corrientes [resumen]
 - Provisiones no corrientes [resumen]
 - Cuentas comerciales y otras cuentas a pagar no corrientes
 - Pasivos por impuestos diferidos
 - Pasivos por impuesto corriente, no corriente
 - Otros pasivos financieros no corrientes
 - Otros pasivos no financieros no corrientes
 - NoncurrentLiabilities

References

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<https://ec.europa.eu/transparency/regdoc/index.cfm?fuseaction=list&n=10&adv=0&coteId=3&year=&number=&dateFrom=2019-09-30&dateTo=2019-09-30&serviceId=103&documentType=&title=&titleLanguage=&titleSearch=EXACT&sortBy=NUMBER&sortOrder=DESC&language=en>

ii <https://www.ifrs.org/issued-standards/ifrs-taxonomy/ifrs-taxonomy-2017/>

iii <https://www.esma.europa.eu/document/esma-esef-taxonomy-2017>

iv Three languages are published by both the European Commission and the IFRS Foundation (IFRS Taxonomy and IFRS Taxonomy Translations): English, Hungarian and Spanish. While the labels for English are identical, the labels for Spanish and Hungarian are slightly different.

In the case of Spanish, after conversations between the author and Prof. Vicente Pina (coordinator of the IFRS translations to Spanish) and conversations also with other experts familiar with the topic, the basic reason seems to be the difference between generally accepted accountancy terms in the Kingdom of Spain and in American Spanish-speaking countries.

After e-mail interchanges with the IFRS Hungarian translation coordinator, Prof. László Bartók (europa-creativa.eu), no practical explanation is reached yet.

See IFRS Taxonomy Translations at www.ifrs.org/issued-standards/ifrs-taxonomy/ifrs-taxonomy-translations/