



EIOPA-ITDC-11/022

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## **Solvency II Taxonomy technical description**

### **Sample version 0.1.0 – dated 2011-06-30**

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- 1.** The European Insurance and Occupational Pensions Authority (EIOPA) published on 21 July 2011 a sample of the future Solvency II taxonomy and reports. This is a disclosure of the XBRL technology that will be used for Solvency II reporting.

#### **I. Overview of this document**

- 2.** This document describes the structure and the contents of the XBRL Sample Taxonomy published on the EIOPA Web site for pre-consultation.

3. This taxonomy, dated 2011-06-30, is based on a limited subset of the templates which were pre-consulted on (with EIOPA stakeholders) in January 2011:
- BS\_C1 (Balance sheet);
  - AS\_D1 (Assets);
  - TP\_NL\_E3 (Claim information for non-life insurance).
4. Data appearing in figures of this document are illustrative; data in the taxonomies may differ.

## II. Prerequisites

5. The reader is supposed to have a minimal knowledge of the XBRL technology used, described in the following specifications:
- XBRL 2.1 specifications (edition of July 2<sup>nd</sup> 2008), available at <http://www.xbrl.org/Specification/XBRL-RECOMMENDATION-2003-12-31+Corrected-Errata-2008-07-02.rtf>;
  - XBRL dimensions, extension of XBRL 2.1, available at <http://www.xbrl.org/Specification/XDT-REC-2006-09-18.rtf>.
6. Upcoming versions of the Solvency II taxonomy will use the XBRL Formula specification, available at <http://www.xbrl.org/Specification/formula/REC-2009-06-22/formula-REC-2009-06-22-complete-package.zip>
7. Training on XBRL is available, interested stakeholders are invited to contact the respective national XBRL jurisdiction(s).

## III. Reporting framework principles

8. The solvency reporting is defined by:
- *templates*, Excel spreadsheets defining the data to be reported; and
  - *LOGs*, textual description of the data.
9. Each cell of a template corresponds to a *data element*.
10. A data element is composed of:
- a primary item, or concept;
  - and a set of zero, one or more dimension values.

- 11.** A *primary item* corresponds to a logical piece of information. For instance, "Casualty" is a primary item.
- 12.** A dimension corresponds to a qualifier of a data element:
- *breakdowns* (for instance: by nature, country, line of business, identification of asset...);
  - other qualifiers (for instance: solo / consolidated, annually / quarterly etc.).
- 13.** A dimension may be:
- *explicit*: defined by a set of possible values defined in the taxonomy, e.g.: in TP\_NL\_E1, "line of business", can have the value "Assistance", "General Liability Insurance", "Legal expense insurance", etc. ; or
  - *typed*: defined through an XML element of a certain type (only the values allowed by the type are allowed), e.g.: in AS\_D1, "asset identification" is a character string of limited length.
- 14.** Some dimensions may share some values, e.g.: "country of custody for assets" (AS\_D1), "country of localization of risk for technical provisions" (TP\_NL\_E1).
- 15.** Each data element must stay meaningful outside of its context.
- 16.** In order to allow reuse of the data element in other context, e.g. reuse in a qualitative report, comparison reports, etc.
- Each primary item (data element, without dimension values) must stay meaningful outside of its context.
  - Data elements are not hierarchised in reports; the possible hierarchy(ies) are defined as metadata, in the taxonomy.

For example, in a filing sent by an undertaking:

It is wrong to define the following elements, depending on their context:

```
Assets
  Goodwill
  Biological assets
  Other
```

The elements should be expressed as:

```
Assets
  Assets, Goodwill
  Assets, Biological assets
  Assets, Excluding goodwill and biological assets
```

- 17.** Each primary item, dimension and dimension value must be associated with a code and a label.
- 18.** The codes used in the taxonomy are the same as the codes used in business templates (pseudo spreadsheet cell coordinates).
- 19.** Codes are used as XML tag names in order:
  - to be neutral with regard to language used;
  - to preserve data from changes in terminology (e.g.: "minority interest" becoming "non controlling interest" in IFRS terminology);
  - to be concise.
- 20.** EIOPA labels are based on the terms currently used in the LOGs accompanying the business templates.
- 21.** The taxonomy must contain labels in all needed languages. For now, this version contains only English labels.
- 22.** Monetary data elements are expressed with a unit in the ISO 4217 money<sup>1</sup>. No multiplier may be used.
- 23.** Calendar dates are expressed using the ISO 8601 format (i.e.: YYYY-MM-DD in the Gregorian calendar).
- 24.** A tolerance margin may be defined and applied to numeric checks.
- 25.** Each information must be associated with a point in time (e.g.: for "Assets") or a period (e.g.: for "Revenue").
- 26.** In a filing report sent by an undertaking, a piece of information present in several templates must occur only once (i.e.: have a single code in the taxonomy).
- 27.** In a filing report, a data element is associated with the identification of the entity described (for example, the undertaking), its temporal characteristics (period or instant), and, for numeric data elements, the unit in which it is expressed and the precision in which it is reported.
- 28.** Data elements may be associated with a "balance": "credit" or "debit". This balance is used to compute aggregations. For example, in the aggregation giving a "credit element", a "credit element" is added, a "debit element" is subtracted (e.g.: "Result" = "Sells" - "Charges").
- 29.** Total and sub-totals present in the business templates must be reported.

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<sup>1</sup> [http://www.currency-iso.org/iso\\_index/iso\\_tables/iso\\_tables\\_a1.htm](http://www.currency-iso.org/iso_index/iso_tables/iso_tables_a1.htm)

#### **IV. Rules to define standard labels for primary items**

- 30.** During the process of the construction of the taxonomy, labels are automatically constructed, using the hierarchy of labels, bottom-up, from the label associated with the cell to the label associated with the template. These hierarchical labels appear in the taxonomy as verbose labels.
- 31.** These generated verbose labels may not be the best to describe primary items in a logical and concise way. Other labels, called standard labels, have been introduced to associate clear, concise, faithful, non ambiguous labels with primary items. These labels are currently being reviewed by members of the working groups in EIOPA.
- 32.** The way standard labels are constructed, once agreed, will be documented. The following paragraphs describe the way standard labels have been constructed.
- 33.** The most significant term must appear first.
- 34.** Qualifiers, allow to add information, must be used with a first capital letter, after a comma, e.g.: "Assets, Net", "Participations, Unlisted", "Bonds, Government". The dash sign is not used (this capital letter allows to discriminate a qualifier from a term: eg.: "Properties, plants and equipment, Net").
- 35.** Abbreviations should be limited and used consistently. They must be defined in a glossary.
- 36.** The label for negative values must be between brackets, e.g: "Gain (loss)".
- 37.** The term "other" should be avoided if possible (use "Including..." or "Excluding..." or equivalent (other than), in a consistent manner, as a qualifier), e.g.: "Bonds, Corporate, Asset backed securities" and "Bonds, Corporate, Excluding asset backed securities".
- 38.** Brackets may be used for explanations.
- 39.** Dashes should not be used.
- 40.** Data are by default monetary. A term of representation, as a qualifier at the end of a label must be used, if the type of the term of representation is not inferred by the label.

Examples:

- "Claims, Number" or "Number of claims" (integer, no units), different from "Claims paid" (amount, monetary, by default);

- "End date of period", valid ("End date of period, Date" is redundant because the type date is already expressed / implied).

**41.** A correspondence must be established between a term of representation and the corresponding type: e.g.: "Description of method used to establish inflation rate":

- Name => String up to 50 characters;
- Description => String up to 500 characters;
- Text => String up to 4096 characters;
- Rate => Ratio;
- Percentage => Percent...

## **V. Structure of the Solvency II taxonomy and reporting**

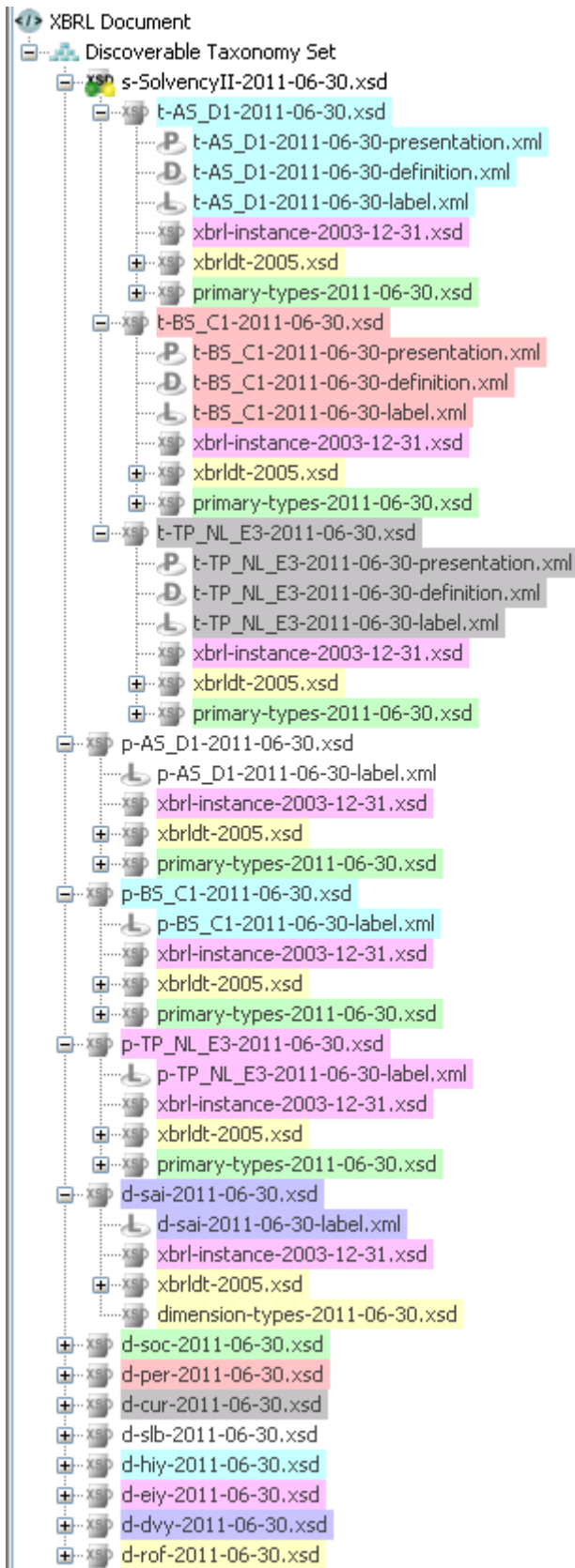
**42.** The Solvency II taxonomy has a modular structure, defined through templates.

**43.** A template may be considered as a view of certain items of the Solvency II taxonomy, expressed as an Excel workbook containing one or more tables, used to represent the facts that must be filled, together with their dimensional breakdowns.

**44.** Each template is associated with a template taxonomy.

**45.** A template typically includes dimensions values that are incompatible with each other and will never be used in a single report, for instance: "Solo" and "Group", or "Quarterly" and "Annually".

**46.** A prudential report can contain information viewed in several templates, with some fixed dimension values, for instance: "Solo" and "Quarterly". The taxonomy referenced by the report imports several template taxonomies and is called "entry point" taxonomy. The set of taxonomies is called *Discoverable Taxonomy Set (DTS)*.



**Figure 1 – Structure of the DTS corresponding to: BS\_C1, AS\_D1 and TP\_NL\_E3 templates (Fujitsu XWand)**

**47.** Figure 1 shows the structure of the DTS containing the three templates of the Sample Taxonomy:

- "s-SolvencyII-2011-06-30.xsd" is the entry point taxonomy schema.
- Schemas starting by "t-..." are templates taxonomy schemas, described hereafter.
- Schemas starting by "d-..." are dimension taxonomy schemas, described hereafter.

## **VI. Usage of Uniform Resource Identifiers (URIs)**

**48.** The Solvency II taxonomy uses:

- standard URIs, as defined in XBRL specifications, based on <http://www.xbrl.org>, or, for the dimensions specifications, <http://xbrl.org>; and
- specific URIs based on <http://www.europa.eiopa.eu/pr/>.

## **VII. Types of taxonomies**

**49.** Two types of taxonomies may be distinguished:

- *dimension taxonomies*, describing dimensions; and
- *template taxonomies*, describing templates, and using dimension taxonomies.

## **VIII. Primary item concepts**

**50.** Every primary item defined in the Solvency II taxonomy must be defined in a template taxonomy.

**51.** Every primary item that could be used in a report is associated with a code. The code, used to define XML tag names, is the same as the pseudo-cell identification used in the "LOGs" documents.

Note: In the "LOGs" document several cells may correspond to the same primary item, associated with different dimensional breakdowns. In this case, the code of the first encountered cell will be used.

**52.** The codes associated with primary items are fixed (they will not change across versions of the taxonomy).



53. To be valid across templates, every code is prefixed with the code of its template.
54. A primary item may be reused across several templates, sharing the same code.

## **IX. Dimensional concepts**

55. Each dimension and each dimension value is associated with a label, in each language of the taxonomy, and a code.
56. The codes used in this Sample Taxonomy are not yet stabilized and are not used as tag names in this version of the taxonomy.

**Note:** In the future, dimensions may be shared across taxonomies.

## **X. Dimension taxonomies**

57. Each dimension is defined in a taxonomy whose XML schema is named `d-{dimension code}-YYYY-MM-DD.xsd`
58. Dimensions' labels are suffixed by "(Dimension)".
59. Every explicit dimension is associated with a single domain of values, defined as an abstract concept, having the same label as the dimension, but suffixed by "(Domain)", instead of "(Dimension)".

Dimension Name	Domain	Count
Solo or group (Dimension)		
Solo or group (Domain)	dimension-domain...	1
Solo	domain-member (*)	1
Group	domain-member (*)	2
Periodicity (Dimension)		
Periodicity (Domain)	dimension-domain...	1
Annually	domain-member (*)	1
Quarterly	domain-member (*)	2
Ad hoc	domain-member (*)	3
Lines of business (Dimension)		
Lines of business (Domain)	dimension-domain...	1
All lines of business	domain-member (*)	1
Lines of business for non life obligations, Excluding non-SLT health	domain-member (*)	1
Lines of business for non-life obligations	domain-member (*)	1
Accident insurance, Non-life obligations	domain-member (*)	1
Sickness insurance, Non-life obligations	domain-member (*)	2
Medical expenses insurance, Non-life obligations	domain-member (*)	3
Income protection insurance, Non-life obligations	domain-member (*)	4
Workers' compensation insurance	domain-member (*)	5
Motor vehicle liability insurance	domain-member (*)	6
Other motor insurance	domain-member (*)	7
Marine, aviation and transport, insurance, Excluding accepted non-proportional	domain-member (*)	8
Fire and other damage to property insurance	domain-member (*)	9
General liability insurance	domain-member (*)	10
Credit and suretyship insurance	domain-member (*)	11
Legal expenses insurance	domain-member (*)	12
Assistance	domain-member (*)	13
Miscellaneous financial loss	domain-member (*)	14
Lines of business for accepted non-proportional reinsurance	domain-member (*)	2
Lines of business for non-SLT health	domain-member (*)	2
Lines of business for life obligations	domain-member (*)	3
Lines of business for SLT health	domain-member (*)	4
Lines of business for non life obligations, Non-SLT health	domain-member (*)	5
Historical inflation years (Dimension)		

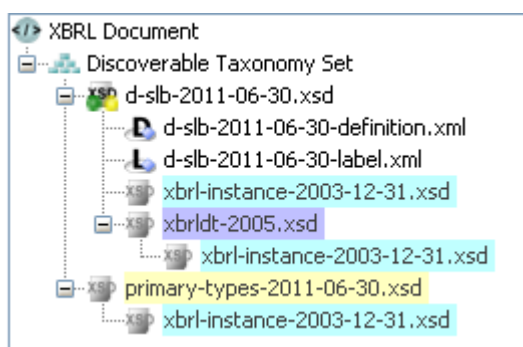
Figure 2 – Domains of explicit dimensions (Fujitsu XWand)

60.

Every explicit dimension schema references:

- a label linkbase, named *d-{dimension code}-YYYY-MM-DD-label.xml*; and
- a definition linkbase, named *d-{dimension code}-YYYY-MM-DD-definition.xml*.

**Note:** label linkbases will be added for all needed languages, named *d-{dimension code}-YYYY-MM-DD-label-ll.xml*, where *ll* is the XML codification of the language.



**Figure 3 – DTS of a dimension taxonomy (Fujitsu XWand)**

**61.** Presentation linkbases do not exist for dimension taxonomies, the hierarchy is defined by the Definition linkbase.

**62.** For the explicit dimensions, label linkbases contain:

- standard labels (<http://www.xbrl.org/2003/role/label>) of dimensions and dimension values in the standard XBRL extended link role (<http://www.xbrl.org/2003/role/link>);
- code labels with a specific label role (<http://www.eiopa.europa.eu/pr/solvencyii/role/code>), also in the standard XBRL extended link role (<http://www.xbrl.org/2003/role/link>).

The definition linkbase contains:

- the relationship between the dimension element and the concept representing its domain, via an arc with the arcrole <http://xbrl.org/int/dim/arcrole/dimension-domain> (no domain is shared in this taxonomy);
- the hierarchy of the dimension members using the arc role <http://xbrl.org/int/dim/arcrole/domain-member>, with the abstract concept corresponding to the domain as a root.

The relationships are defined in the standard XBRL ELR <http://www.xbrl.org/2003/role/link>.

**63.** For the typed dimensions, the XML schema imports the schema dimension-types-YYYY-MM-DD.xsd which contains all the elements and all types used for typed dimensions. Names of elements and names of types are derived from the name of the dimension, with the suffix "DimensionElement" and "ItemType", respectively. For instance the "Asset identification" typed dimension uses the element "AssetIdentificationDimensionElement" of the type "AssetIdentificationItemType".

Label linkbases contain:

- standard labels (<http://www.xbrl.org/2003/role/label>) of dimensions and dimension values in the standard XBRL extended link role (<http://www.xbrl.org/2003/role/link>);
- code labels with a specific label role (<http://www.eiopa.europa.eu/pr/solvencyii/role/code>), also in the standard XBRL extended link role (<http://www.xbrl.org/2003/role/link>).

Label	language	role
Label Link		
<a href="http://www.xbrl.org/2003/role/link">http://www.xbrl.org/2003/role/link</a>		
Asset identification (Dimension)	en	label
AID	en	code (*)

Figure 4 – Standard label and code associated with a typed dimension (Fujitsu XWand)

## XI. Template Taxonomies

64. In the Solvency II taxonomy, each template is associated with a template taxonomy.
65. A template can be considered as a view of certain elements of the reporting, gathering the information associated with a certain aspect (for instance "Balance sheet", "Technical provisions").
66. A template describes primary items together with their associated dimensions.
67. It may happen that certain dimension values are exclusive from each other in an instance. For example, an instance used for Solvency II will either contains information for solo reporting (value of the "Solo or group" dimension: "Solo") or group reporting (reporting will never contain information related to Solo and information related to group reporting (value of the "Solo or group" dimension: "Group").
68. A template may use primary items defined in the template and / or primary items defined in other templates.
69. Each template taxonomy contains:
  - An XML schema named `p-{template-code}-YYYY-MM-DD.xsd` where `{template-code}` is the code associated with the template. For instance: `p-BS_C1-2012-12-31.xsd`.

This schema contains:

- the definition of the primary items defined in the template, linked to a namespace associated with the template. For instance: [http://www.eiopa.europa.eu/pr/solvencyii/BS\\_C1\\_BalanceSheetTemplate](http://www.eiopa.europa.eu/pr/solvencyii/BS_C1_BalanceSheetTemplate)

**Note:** In the future the schema may contain filing indicators associated with the template. For example: a filing indicator for BS\_C1, Quarterly, Solo.

- A Label linkbase named p-*{template-code}*-YYYY-MM-DD-label.xml referenced by the schema, containing the standard labels and the codes of all primary items defined in the template:
  - standard labels (<http://www.xbrl.org/2003/role/label>) of dimensions and dimension values in the standard XBRL extended link role (<http://www.xbrl.org/2003/role/link>);
  - code labels with a specific label role (<http://www.eiopa.europa.eu/pr/solvencyii/role/code>), also in the standard XBRL extended link role (<http://www.xbrl.org/2003/role/link>).

- Notes:**
- In this Sample Taxonomy, verbose labels are defined. They are built from the hierarchy of labels used in templates, from the local labels associated with the primary item to the label associated with the template.
  - Label linkbases will be added for all needed languages, named d-*{dimension code}*-YYYY-MM-DD-label-*{language}*.xml, where *{language}* is the code of the language of the included labels (it, no, gr...).

Label	language	role
Label Link		
<a href="http://www.xbrl.org/2003/role/link">http://www.xbrl.org/2003/role/link</a>		
Participations, Investments (other than assets held for unit-linked funds), Assets, Statutory accounts valuation basis, Balance sheet	en	verboseLabel
Participations, Investments other than assets held for unit linked funds, Statutory accounts, Balance sheet	en	label
BS_C1_AS6	en	code (*)

**Figure 5 – Labels and code associated to primary item BS\_C1\_AS6 (Fujitsu XWand)**

- An XML schema named t-*{template-code}*-YYYY-MM-DD.xsd where *{template-code}* is the code associated with the template. For instance: t-BS\_C1-2012-12-31.xsd.

This schema contains:

- the definition extended link roles used in Presentation and Definition linkbases;

- the definition of the hypercubes associated with the primary items defined in the template.
- A Presentation linkbase named `p-{template-code}-YYYY-MM-DD-presentation.xml` referenced by the schema, containing:
  - the hierarchies of primary items defined in each table of the template, using the arc role parent-child, in an extended link role (ELR) corresponding to the template.

Item Name	Line Number
Balance sheet	
Statutory accounts valuation basis, Balance sheet	1
Solvency II value, Balance sheet	2
Assets, Solvency II value, Balance sheet	1
Other intangible assets, Deferred acquisition costs and other intangible assets, Assets, Solvency II value, Balance sheet	1
Deferred tax assets, Assets, Solvency II value, Balance sheet	2
Property, plant & equipment held for own use, Assets, Solvency II value, Balance sheet	3
Pension benefit surplus, Assets, Solvency II value, Balance sheet	4
Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	5
Property (other than own use), Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	1
Participations, Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	2
Investment funds, Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	3
Derivatives, Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	4
Deposits other than cash equivalents, Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	5
Loans & mortgages (except loans on policies), Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	6
Other investments, Investments (other than assets held for unit-linked funds), Assets, Solvency II value, Balance sheet	7
Assets held for unit-linked & index-linked, Assets, Solvency II value, Balance sheet	6
Loans on policies, Assets, Solvency II value, Balance sheet	7
Reinsurance recoverables from:, Assets, Solvency II value, Balance sheet	8
Deposits to cedants, Assets, Solvency II value, Balance sheet	9
Insurance & intermediaries receivables, Assets, Solvency II value, Balance sheet	10
Receivables (trade, not insurance), Assets, Solvency II value, Balance sheet	11
Cash and cash equivalents, Assets, Solvency II value, Balance sheet	12
Any other assets, not elsewhere shown, Assets, Solvency II value, Balance sheet	13
Total assets, Assets, Solvency II value, Balance sheet	14
Liabilities and Basic own funds, Solvency II value, Balance sheet	2

**Figure 6 – Part of the presentation hierarchy for BS\_C1: (Fujitsu XWand)**

- A Definition linkbase named `t-{template-code}-YYYY-MM-DD-definition.xml` referenced by the schema, containing:
  - The relationships between primary items and hypercubes, using the has-hypercube arcs ("all" and "notAll") in as many ELRs as there are inclusion hypercubes. An inclusion hypercube introduces a section in the template. The URI of the ELR contains the name of the template and the name of the inclusion hypercube, for instance:
 

```
"http://www.eiopa.europa.eu/pr/solvencyii/role/t-AS_D1_BS_InvestmentsDataPortfolioList_H00002Section".
```
  - The relationship between primary items to inherit hypercubes, using the "domain-member" arcs.
  - The definition of hypercubes in as many ELR as the number of hypercubes. The URI of the ELR contains the name of the template and the name of the hypercube, for instance:
 

```
"http://www.eiopa.europa.eu/pr/solvencyii/role/t-AS_D1_HC_InvestmentsDataPortfolioListTemplate_H00002Hypercube".
```

**Note:** Dimension members have no hierarchies in hypercubes.

D Definition Link		
<a href="http://www.eiopa.europa.eu/pr/solvencijii/role/t-AS_D1_B5_InvestmentsDataPortfolioList_H00002Section">http://www.eiopa.europa.eu/pr/solvencijii/role/t-AS_D1_B5_InvestmentsDataPortfolioList_H00002Section</a>		
Investments Data - Portfolio list		
H00002 (Hypercube)	all (*)	1
Portfolio type, Investments data	domain-member (*)	2
Fund code, Investments data	domain-member (*)	3
Asset held in unit linked funds (yes or no), Investments data	domain-member (*)	4
ID code, Investments data	domain-member (*)	5
ID code type, Investments Data	domain-member (*)	6
Asset pledged as collateral, Investments data, Type	domain-member (*)	7
Security title, Investments data	domain-member (*)	8
Issuer name, Investments data	domain-member (*)	9
Issuer sector (NACE code or other), Investments data	domain-member (*)	10
Issuer group code, Investments data	domain-member (*)	11
Issuer country, Investments data	domain-member (*)	12
Country of custody, Investments data	domain-member (*)	13
Currency, Investments data	domain-member (*)	14
CIC, Investments data	domain-member (*)	15
Participation type, As defined by article 13(20) of directive 2009/138/EC, Investments data	domain-member (*)	16
External rating, Investments data	domain-member (*)	17
Rating agency, Investments data	domain-member (*)	18
Underlying of securitization, Investments data, Name	domain-member (*)	19
Duration in years, Investments data	domain-member (*)	20
Quantity, Investments data	domain-member (*)	21
Unit SII price, Investments data	domain-member (*)	22
Type of valuation method SII, Investments data	domain-member (*)	23
Acquisition cost, Investments data	domain-member (*)	24
Total solvency II amount, Investments data	domain-member (*)	25
Maturity date, Investments data	domain-member (*)	26
Amount of accrued interest, Investments data	domain-member (*)	27
<a href="http://www.eiopa.europa.eu/pr/solvencijii/role/t-AS_D1_HC_InvestmentsDataPortfolioListTemplate_H00002Hypercube">http://www.eiopa.europa.eu/pr/solvencijii/role/t-AS_D1_HC_InvestmentsDataPortfolioListTemplate_H00002Hypercube</a>		
H00002 (Hypercube)		
Asset identification (Dimension)	hypercube-dimension (*)	1
Solo or group (Dimension)	hypercube-dimension (*)	2
Group	dimension-domain (*)	3
Solo	dimension-domain (*)	4

**Figure 7 – Contents of the Definition linkbase for AS\_D1:**

**t-AS\_D1-2011-06-30-definition.xml (Fujitsu XWand)**

- A Label linkbase named `t-{template-code}-YYYY-MM-DD-label.xml` referenced by the schema, containing the automatically generated labels and codes of the hypercubes.