EUROPEAN INSURANCE
AND OCCUPATIONAL PENSIONS AUTHORITY

# EIOPA IT & Data Committee XBRL Webinar

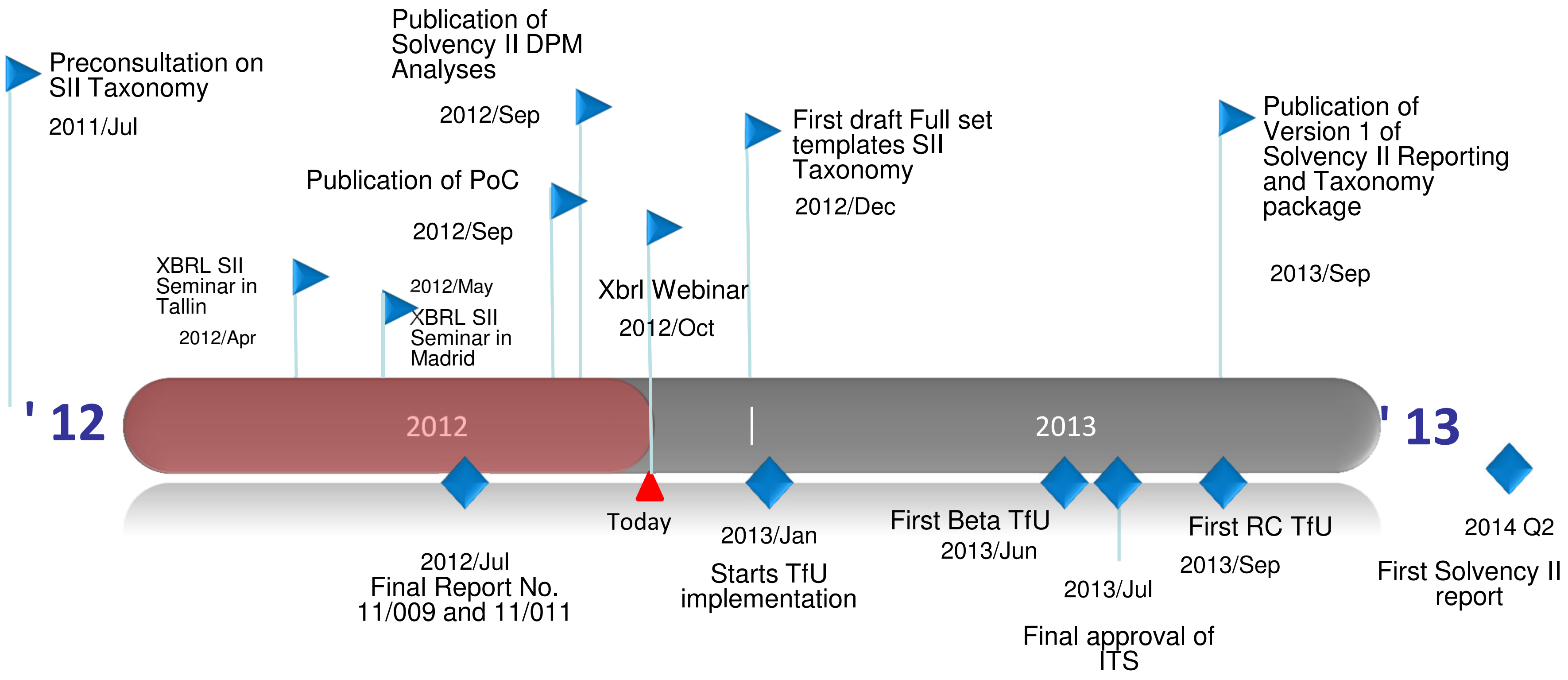
19th October 2012

# Agenda

- General introduction
- XBRL projects timelines and status
  - taxonomy
  - tool for undertakings
  - other XBRL related projects
- DPM
  - concept
  - process
  - results (full draft and proof-of-concept)
- Proof-of-concept taxonomy
  - modularization
  - architecture and content
  - rendering and valid combinations
  - examples
- Important topics and issues
- Q/A

# 2. XBRL projects timelines and status

# Taxonomy timeline



Preconsultation on SII Taxonomy
2011/Jul

XBRL SII Seminar in Tallin
2012/Apr

2012/May
XBRL SII Seminar in Madrid

Publication of Solvency II DPM Analyses
2012/Sep

Publication of PoC
2012/Sep

Xbrl Webinar
2012/Oct

First draft Full set templates SII Taxonomy
2012/Dec

Publication of Version 1 of Solvency II Reporting and Taxonomy package
2013/Sep

' 12
2012
2013
' 13

2012/Jul
Final Report No. 11/009 and 11/011

Today

2013/Jan
Starts TfU implementation

First Beta TfU
2013/Jun

2013/Jul
Final approval of ITS

First RC TfU
2013/Sep

2014 Q2
First Solvency II report

▶ Taxonomy delivery or event.

◆ External income/dependency of the Taxonomy Project.

# Reporting Tool for Undertakings

**Objective:** To provide undertakings with a tool to easily create complete and valid XBRL instances from Solvency II harmonized quantitative reporting templates.

## Timetable / Milestones

| Project setup | Business requirements finalised | Call for tenders launched | Contract signed |
|---|---|---|---|
| ☆ | ☆ | ☆ | ☆ |
| 3/2012 | 7/2012 | 8/2012 | 12/2012 |

## Risks / Late deliverables / Challenges

## Progress

**Achieved:**

- Project setup
- Project meetings on 29/3 and 24/4
- Questionnaire and draft business requirements to ITDC on 4/5 (deadline 22/5)
- Evaluation of answers and update of requirements document
- Stakeholder review by IRSG
- Solvency Capital Requirements and help utilities for calculation under discussion in Business Subgroup

**Ongoing:**

- Preparation of second draft of business requirements (tender documentation)
- Procurement procedure

**To come:**

- Procurement award
- Start of the implementation
- Market test

# XBRL taxonomy development

**Objective:** To develop a stable XBRL taxonomy based on the final reporting templates so that undertakings are able to submit valid data in a harmonised format to the National Supervisory Authorities.

## Timetable / Milestones

| DPM advisor selected | Stable templates | Frist draft taxonomy published | RC taxonomy published and TfU |
|---|---|---|---|
| ☆ | ☆ | ☆ | ☆ |
| 3/2012 | 6/2012 | 12/2012 | 07/2013 |

## Risks / Late deliverables / Challenges

- Dependencies on finalisation Solvency II templates (changes to deadline)
- Necessary feedback loops, especially regarding validation
- Need for a new technical consultation
- Co-ordination with EBA
- Possible NSA interim implementations

## Progress

### Achieved:

- Work carried out by the Taxonomy Taskforce (lead: Eric Jarry)
- Contract with BR-AG to support the Data Point Modelling process and Taxonomy implementation
- 6 meetings between BR-AG and IGSRR SG3 for DPM analysis
- On-site, technical workshops, including a session with Business and IT Subgroups
- Publication of DPM covering solvency II templates unifying in one workbook the Solo, Group, Quarterly Annual and Public Disclosure Reporting.

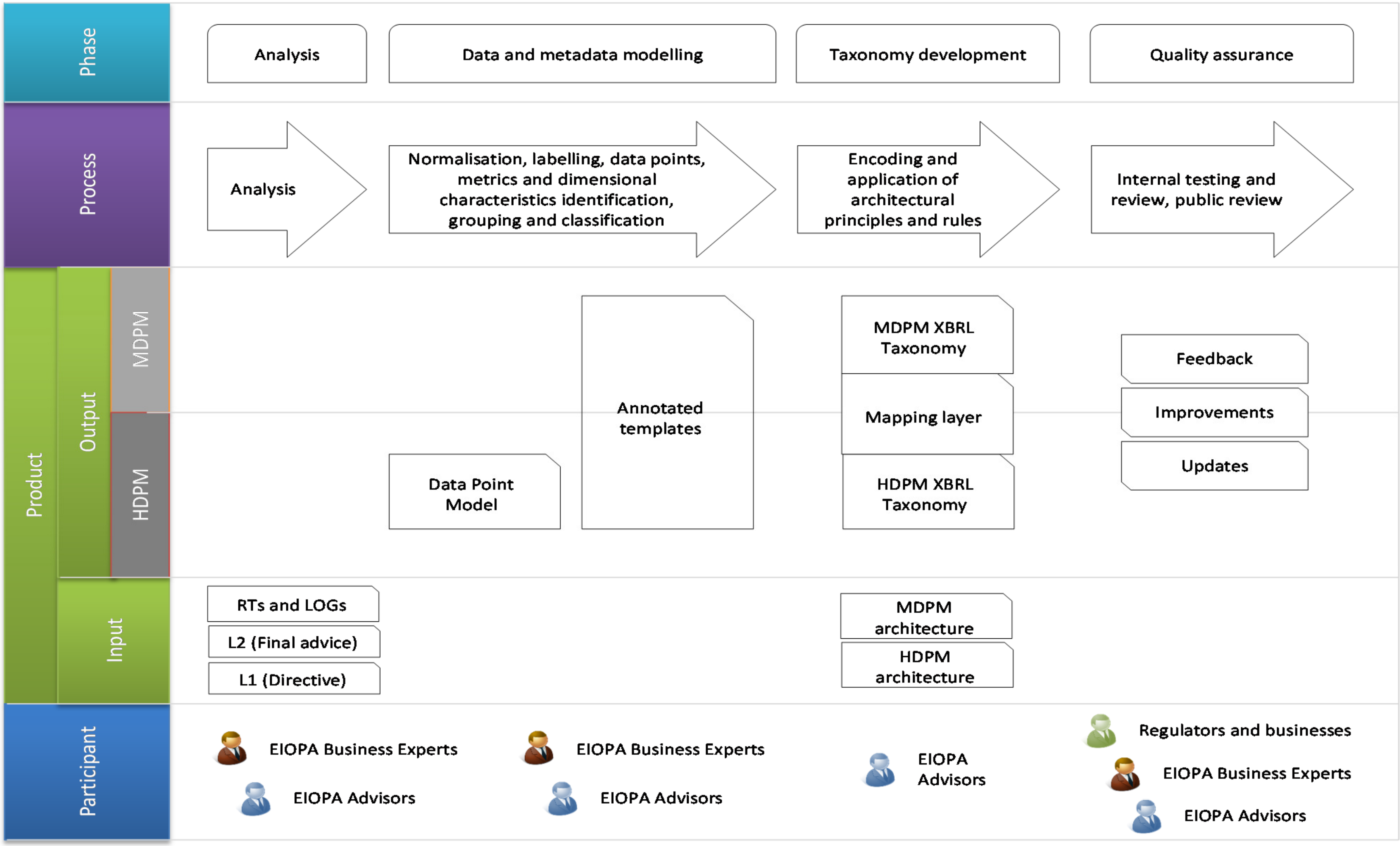
### Ongoing:

- Implementation of the first draft Solvency II taxonomy covering all templates
- Inclusion of the financial stability requirements on DPM Workbook
- QA coordination

### To come:

- Inclusion of different subset in the DPM Workbook
- Stable taxonomy by Q4 2012
- Inclusion of other subsets (EIOPA&NSA, ECB, RM, Collage)
- IORP requirements
- NSA and Fillers guidelines
- Collaboration with TfU

# The taxonomy development PROCESS



Phase

Analysis

Data and metadata modelling

Taxonomy development

Quality assurance

Process

Analysis

Normalisation, labelling, data points, metrics and dimensional characteristics identification, grouping and classification

Encoding and application of architectural principles and rules

Internal testing and review, public review

Product

Output

MDPM

HDPM

Data Point Model

Annotated templates

MDPM XBRL Taxonomy

Mapping layer

HDPM XBRL Taxonomy

Feedback

Improvements

Updates

Input

RTs and LOGs

L2 (Final advice)

L1 (Directive)

MDPM architecture

HDPM architecture

Participant

EIOPA Business Experts

EIOPA Advisors

EIOPA Business Experts

EIOPA Advisors

EIOPA Advisors

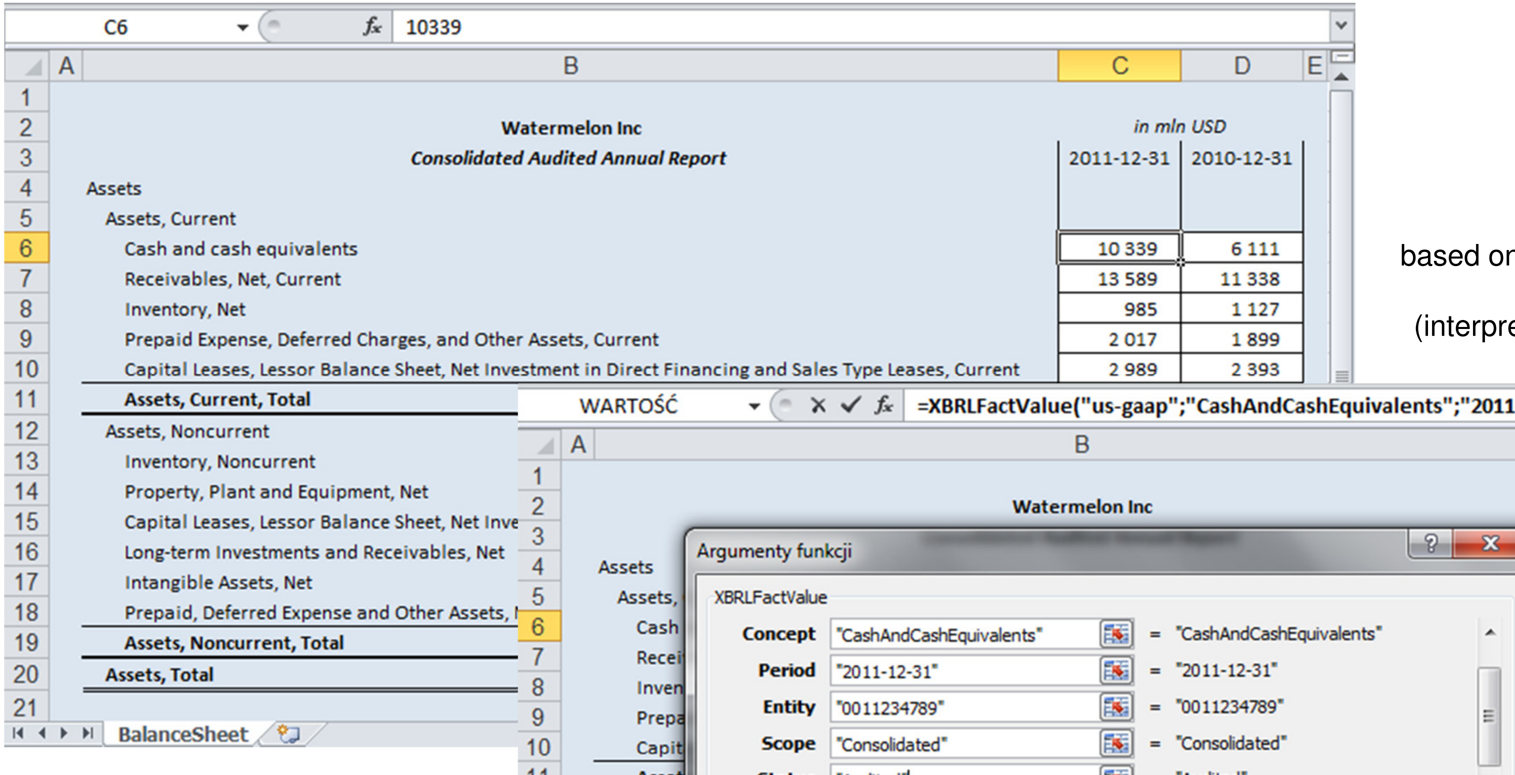
Regulators and businesses

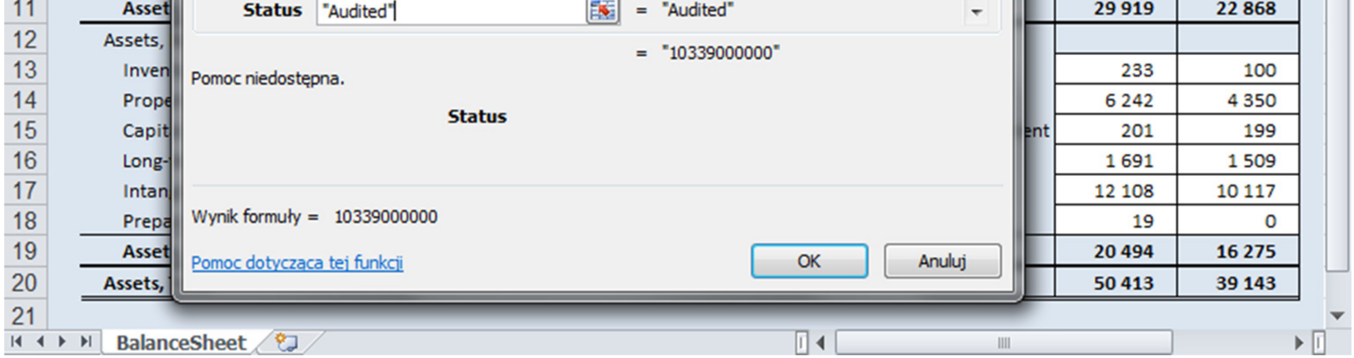
EIOPA Business Experts

EIOPA Advisors

# 3. DPM

# Form centric vs. data centric approach





C6 fx 10339

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | **Watermelon Inc** | *in mln USD* | |
| 3 | | ***Consolidated Audited Annual Report*** | 2011-12-31 | 2010-12-31 |
| 4 | | Assets | | |
| 5 | | Assets, Current | | |
| 6 | | Cash and cash equivalents | 10 339 | 6 111 |
| 7 | | Receivables, Net, Current | 13 589 | 11 338 |
| 8 | | Inventory, Net | 985 | 1 127 |
| 9 | | Prepaid Expense, Deferred Charges, and Other Assets, Current | 2 017 | 1 899 |
| 10 | | Capital Leases, Lessor Balance Sheet, Net Investment in Direct Financing and Sales Type Leases, Current | 2 989 | 2 393 |
| 11 | | **Assets, Current, Total** | | |
| 12 | | Assets, Noncurrent | | |
| 13 | | Inventory, Noncurrent | | |
| 14 | | Property, Plant and Equipment, Net | | |
| 15 | | Capital Leases, Lessor Balance Sheet, Net Inve | | |
| 16 | | Long-term Investments and Receivables, Net | | |
| 17 | | Intangible Assets, Net | | |
| 18 | | Prepaid, Deferred Expense and Other Assets, I | | |
| 19 | | **Assets, Noncurrent, Total** | | |
| 20 | | **Assets, Total** | | |
| 21 | | | | |

BalanceSheet

WARTOŚĆ fx =XBRLFactValue("us-gaap";"CashAndCashEquivalents";"2011-12-31";"0011234789";

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | **Watermelon Inc** | *in mln USD* | |
| 3 | | | 2011-12-31 | 2010-12-31 |
| 4 | | Assets | | |
| 5 | | Assets, | | |
| 6 | | Cash | dited") | 6 111 |
| 7 | | Recei | 13 589 | 11 338 |
| 8 | | Inven | 985 | 1 127 |
| 9 | | Prepa | 2 017 | 1 899 |
| 10 | | Capit | 2 989 | 2 393 |
| 11 | | **Asset** | **29 919** | **22 868** |
| 12 | | Assets, | | |
| 13 | | Inven | 233 | 100 |
| 14 | | Prope | 6 242 | 4 350 |
| 15 | | Capit … ent | 201 | 199 |
| 16 | | Long- | 1 691 | 1 509 |
| 17 | | Intan | 12 108 | 10 117 |
| 18 | | Prepa | 19 | 0 |
| 19 | | **Asset** | **20 494** | **16 275** |
| 20 | | **Assets,** | **50 413** | **39 143** |
| 21 | | | | |

BalanceSheet

Argumenty funkcji

XBRLFactValue

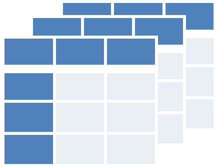
**Concept** "CashAndCashEquivalents" = "CashAndCashEquivalents"
**Period** "2011-12-31" = "2011-12-31"
**Entity** "0011234789" = "0011234789"
**Scope** "Consolidated" = "Consolidated"
**Status** "Audited" = "Audited"
= "10339000000"

Pomoc niedostępna.

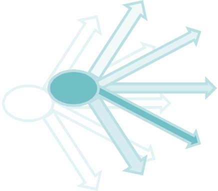
**Status**

Wynik formuły = 10339000000

Pomoc dotyczaca tej funkcji

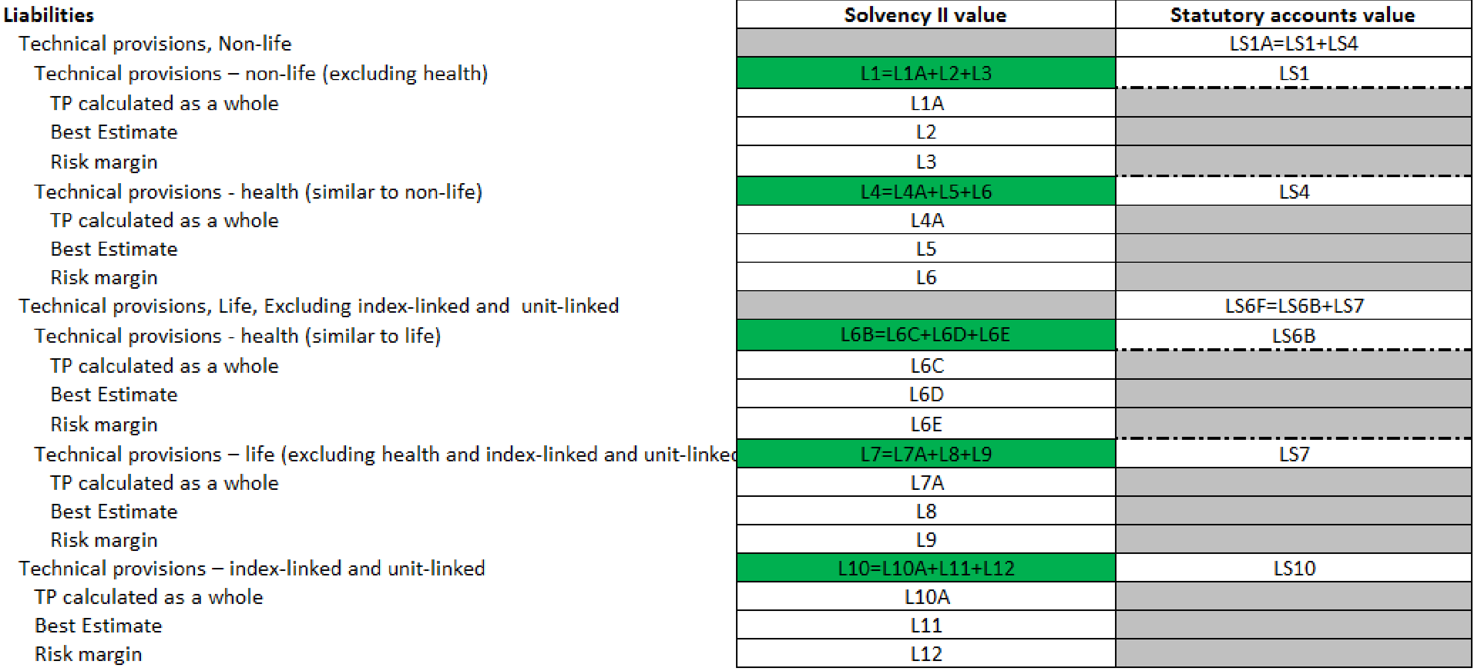


**"form centric"**
based on presentation that conveys semantics
(interpretation in certain contexts)



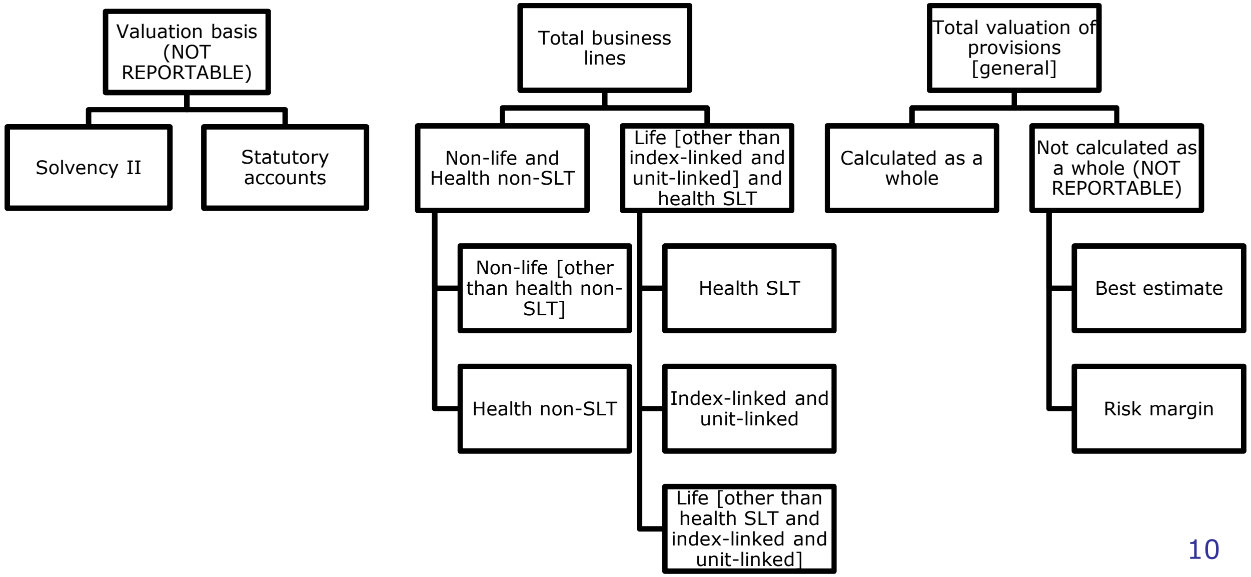
**"data centric"**
explicit definition irrespective of presentation
(every term fully understood by its own with all properties included in its definition)

# What is data modeling?
# Let's model a part of QRT



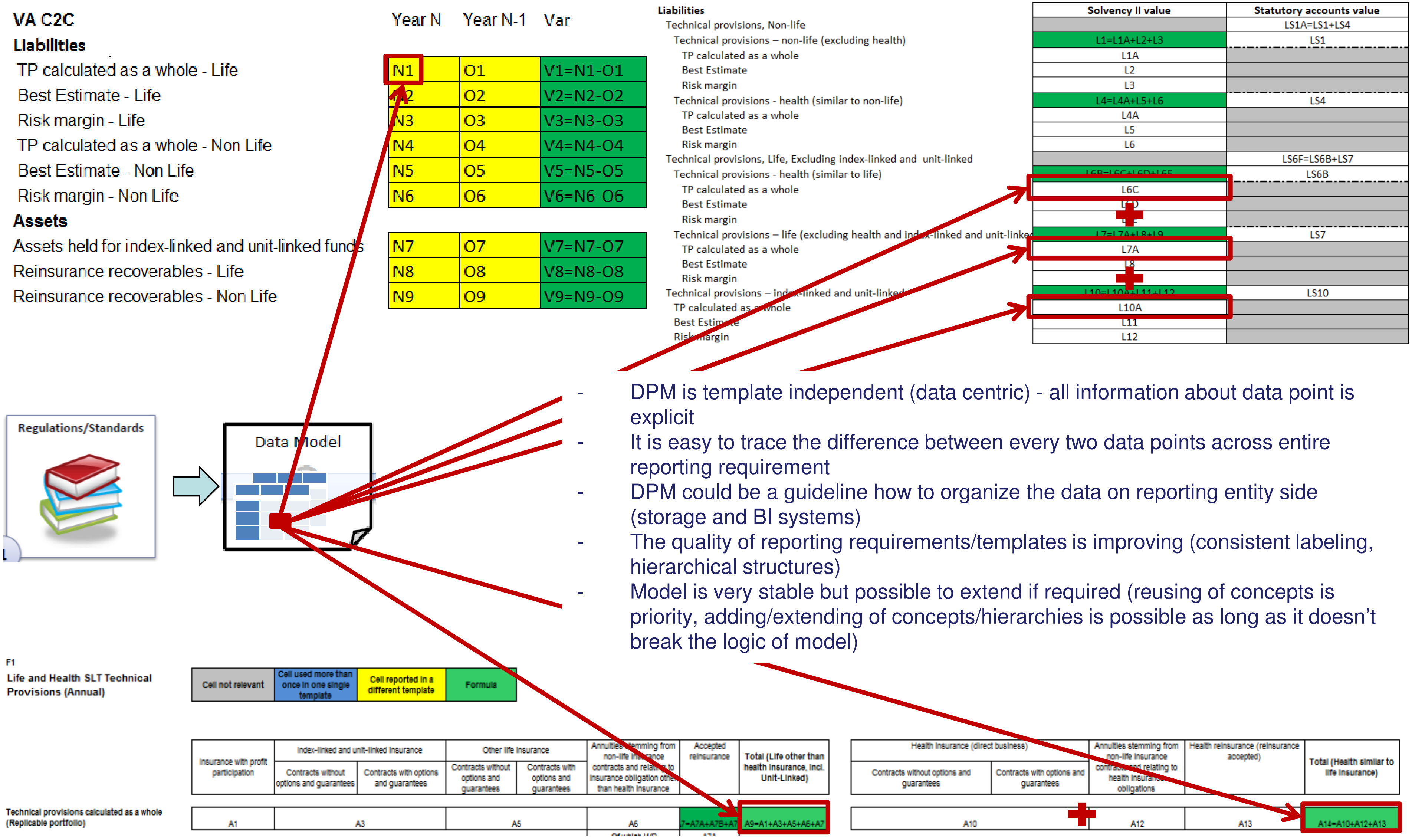
| Liabilities | Solvency II value | Statutory accounts value |
|---|---|---|
| Technical provisions, Non-life | | LS1A=LS1+LS4 |
| Technical provisions – non-life (excluding health) | L1=L1A+L2+L3 | LS1 |
| TP calculated as a whole | L1A | |
| Best Estimate | L2 | |
| Risk margin | L3 | |
| Technical provisions - health (similar to non-life) | L4=L4A+L5+L6 | LS4 |
| TP calculated as a whole | L4A | |
| Best Estimate | L5 | |
| Risk margin | L6 | |
| Technical provisions, Life, Excluding index-linked and unit-linked | | LS6F=LS6B+LS7 |
| Technical provisions - health (similar to life) | L6B=L6C+L6D+L6E | LS6B |
| TP calculated as a whole | L6C | |
| Best Estimate | L6D | |
| Risk margin | L6E | |
| Technical provisions – life (excluding health and index-linked and unit-linked | L7=L7A+L8+L9 | LS7 |
| TP calculated as a whole | L7A | |
| Best Estimate | L8 | |
| Risk margin | L9 | |
| Technical provisions – index-linked and unit-linked | L10=L10A+L11+L12 | LS10 |
| TP calculated as a whole | L10A | |
| Best Estimate | L11 | |
| Risk margin | L12 | |

- modelling options:
  - each cell is a single item (no properties)
    primary items
  - 22 items and one property (Valuation basis) with values:: Solvency II and Statutory accounts
  - one item & three properties (DPM)
- what about additional/not explicit information: for example group vs. solo?



- Valuation basis (NOT REPORTABLE)
  - Solvency II
  - Statutory accounts
- Total business lines
  - Non-life and Health non-SLT
    - Non-life [other than health non-SLT]
    - Health non-SLT
  - Life [other than index-linked and unit-linked] and health SLT
    - Health SLT
    - Index-linked and unit-linked
    - Life [other than health SLT and index-linked and unit-linked]
- Total valuation of provisions [general]
  - Calculated as a whole
  - Not calculated as a whole (NOT REPORTABLE)
    - Best estimate
    - Risk margin

# Benefits of DPM



| **VA C2C** | Year N | Year N-1 | Var |
|---|---|---|---|
| **Liabilities** | | | |
| TP calculated as a whole - Life | N1 | O1 | V1=N1-O1 |
| Best Estimate - Life | N2 | O2 | V2=N2-O2 |
| Risk margin - Life | N3 | O3 | V3=N3-O3 |
| TP calculated as a whole - Non Life | N4 | O4 | V4=N4-O4 |
| Best Estimate - Non Life | N5 | O5 | V5=N5-O5 |
| Risk margin - Non Life | N6 | O6 | V6=N6-O6 |
| **Assets** | | | |
| Assets held for index-linked and unit-linked funds | N7 | O7 | V7=N7-O7 |
| Reinsurance recoverables - Life | N8 | O8 | V8=N8-O8 |
| Reinsurance recoverables - Non Life | N9 | O9 | V9=N9-O9 |

| **Liabilities** | **Solvency II value** | **Statutory accounts value** |
|---|---|---|
| Technical provisions, Non-life | | LS1A=LS1+LS4 |
| Technical provisions – non-life (excluding health) | L1=L1A+L2+L3 | LS1 |
| TP calculated as a whole | L1A | |
| Best Estimate | L2 | |
| Risk margin | L3 | |
| Technical provisions - health (similar to non-life) | L4=L4A+L5+L6 | LS4 |
| TP calculated as a whole | L4A | |
| Best Estimate | L5 | |
| Risk margin | L6 | |
| Technical provisions, Life, Excluding index-linked and unit-linked | | LS6F=LS6B+LS7 |
| Technical provisions - health (similar to life) | L6B=L6C+L6D+L6E | LS6B |
| TP calculated as a whole | L6C | |
| Best Estimate | L6D | |
| Risk margin | L6E | |
| Technical provisions – life (excluding health and index-linked and unit-linked) | L7=L7A+L8+L9 | LS7 |
| TP calculated as a whole | L7A | |
| Best Estimate | L8 | |
| Risk margin | | |
| Technical provisions – index-linked and unit-linked | L10=L10A+L11+L12 | LS10 |
| TP calculated as a whole | L10A | |
| Best Estimate | L11 | |
| Risk margin | L12 | |

- DPM is template independent (data centric) - all information about data point is explicit
- It is easy to trace the difference between every two data points across entire reporting requirement
- DPM could be a guideline how to organize the data on reporting entity side (storage and BI systems)
- The quality of reporting requirements/templates is improving (consistent labeling, hierarchical structures)
- Model is very stable but possible to extend if required (reusing of concepts is priority, adding/extending of concepts/hierarchies is possible as long as it doesn't break the logic of model)

**F1**

**Life and Health SLT Technical Provisions (Annual)**

| Cell not relevant | Cell used more than once in one single template | Cell reported in a different template | Formula |
|---|---|---|---|

| | Insurance with profit participation | Index-linked and unit-linked insurance | | Other life insurance | | Annuities stemming from non-life insurance contracts and relating to insurance obligation other than health insurance | Accepted reinsurance | **Total (Life other than health insurance, incl. Unit-Linked)** |
|---|---|---|---|---|---|---|---|---|
| | | Contracts without options and guarantees | Contracts with options and guarantees | Contracts without options and guarantees | Contracts with options and guarantees | | | |
| **Technical provisions calculated as a whole (Replicable portfolio)** | A1 | A3 | | A5 | | A6 | 7=A7A+A7B+A7 | A9=A1+A3+A5+A6+A7 |

| Health insurance (direct business) | | Annuities stemming from non-life insurance contracts and relating to health insurance obligations | Health reinsurance (reinsurance accepted) | **Total (Health similar to life insurance)** |
|---|---|---|---|---|
| Contracts without options and guarantees | Contracts with options and guarantees | | | |
| A10 | | A12 | A13 | A14=A10+A12+A13 |

**A data point:** Net carrying amount of not yet unimpaired but already past due (over 180 days) debt securities held, issued in EUR by MFIs located in EMU with original maturity under one year, measured at amortised cost and relating only to business activities conduced in EU (local business).

**Measure (metric):**
- Monetary
- Text
- Date

**Portfolios:**
- Total (…)
  - Fair value through profit or loss
  - Amortised cost

**Impairment status:**
- All / Not-applicable
  - Impaired
  - Unimpaired

**Time reference:**
- Current period end
- Previous period end
- Current period

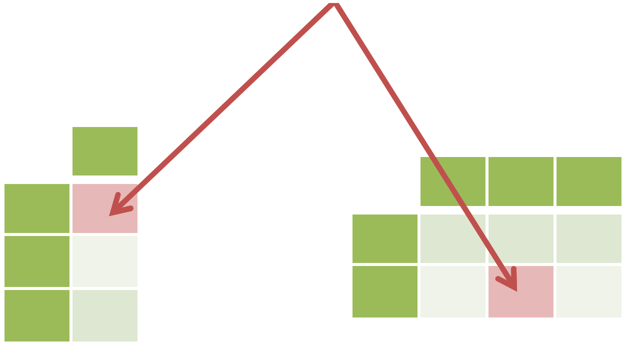
**Base terms:**
- Assets
- Liabilities
- Equity
- Off-balance sheet
- Exposures

**Categories:**
- Total (…)
  - Cash
  - Loans
  - Debt securities
  - Equity instruments
  - Tangible and intangible
  - Other than (…)

**Amount types:**
- Carrying amount
  - Gross carrying amount
  - (Specific allowances)
  - (Collective allowances)

**Original currencies:**
- All / Not-applicable
  - EUR
  - Other than EUR

| | |
|---|---|
| **Base term:** | Assets |
| **Category:** | Debt securities |
| **Portfolio:** | Amortised cost |
| **Amount type:** | Carrying amount |
| **Impairment status:** | Unimpaired |
| **Past due period:** | ≥ 180 days |
| **Original currency:** | EUR |
| **Original maturity:** | < 1 year |
| **Counterparty sector:** | MFIs |
| **Counterparty residence:** | EMU |
| **Location of activity:** | EU |
| **Measure (metric):** | Monetary |
| **Time reference:** | Current period end |



**Past due periods:**
- All
  - 0 days
  - < 180 days
  - ≥ 180 days

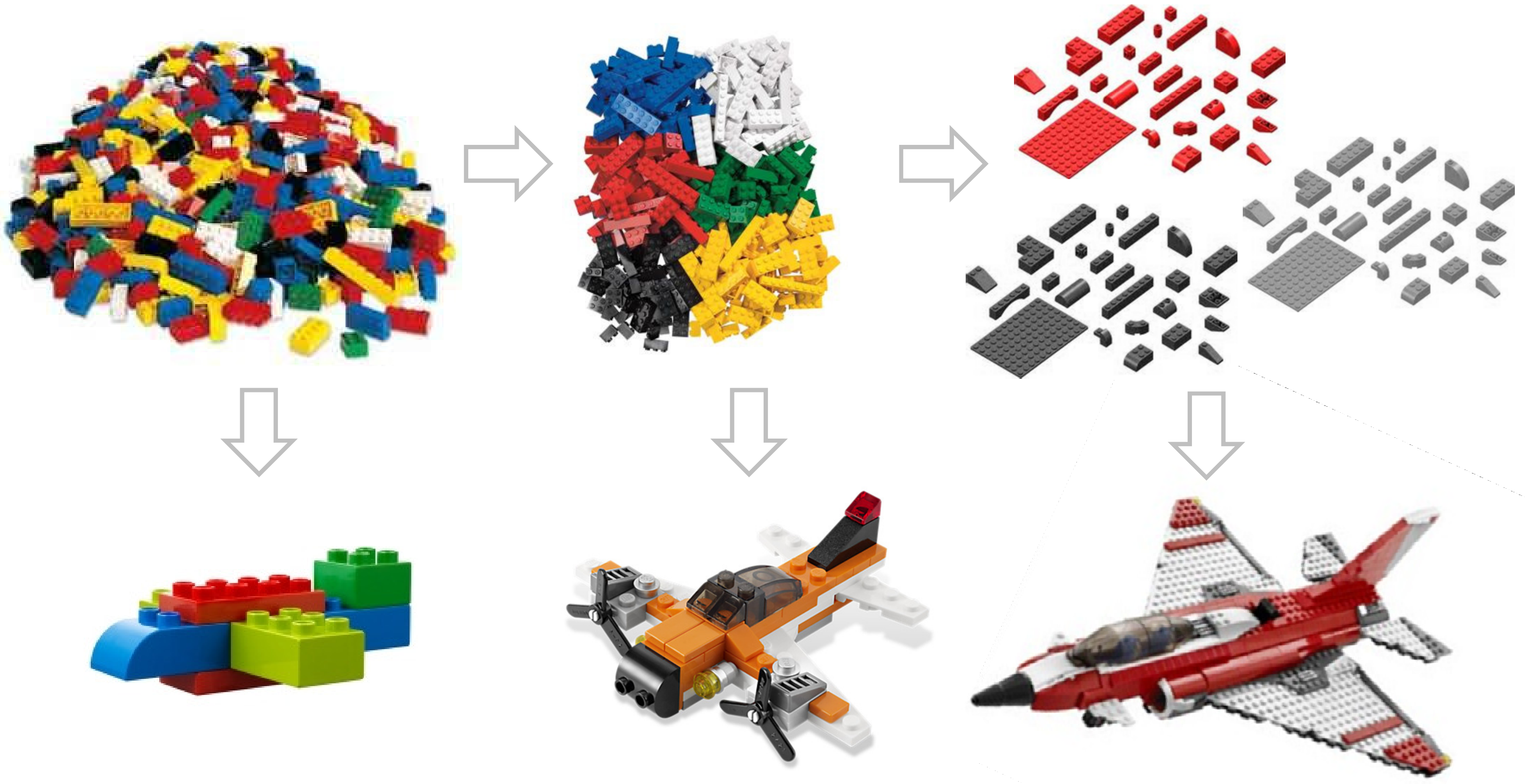
**Original maturity:**
- All
  - < 1 year
  - ≥ 1 year < 2 year
  - ≥ 2 years

**Counterparty sectors:**
- All / Not-applicable
  - MFIs
    - MMFs
    - MFIs other than MMFs
  - Central Administration
  - Other general government
  - Non-MFIs other than government

**Counterparty residences:**
- All / Not-applicable
  - EMU
  - Other than EMU (…)

**Locations of activities:**
- All / Not-applicable
  - EU
  - Other than EU (…)

# Building a plane from Lego blocks

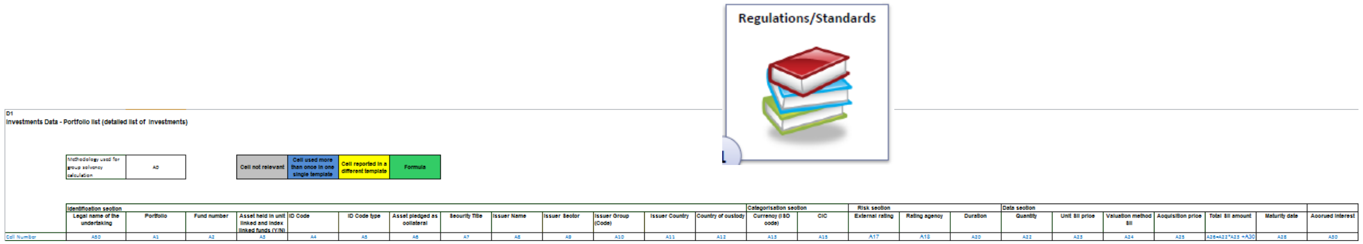


# DPM development process

DPM artefacts

Templates analysis and review

EIOPA Business Experts



Regulations/Standards

D1

Investments Data - Portfolio list (detailed list of investments)

| | |
|---|---|
| Methodology used for group solvency calculation | A0 |

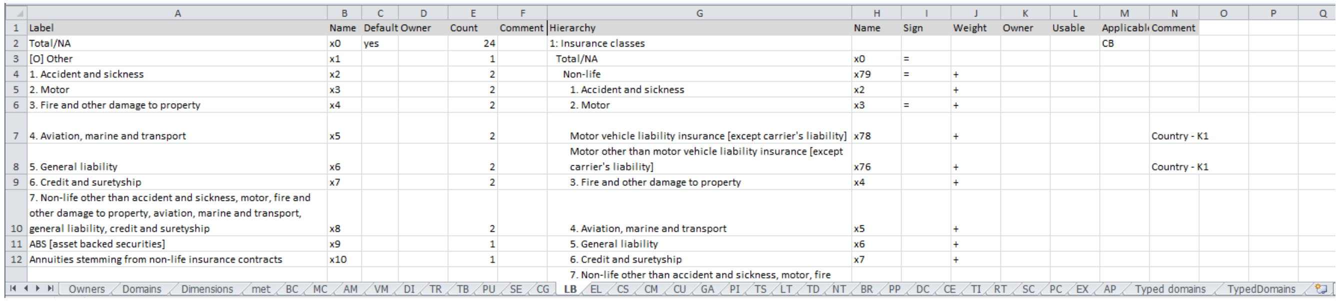
| Cell not relevant | Cell used more than once in one single template | Cell reported in a different template | Formula |
|---|---|---|---|

| | Identification section | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Legal name of the undertaking | Portfolio | Fund number | Asset held in unit linked and index linked funds (Y/N) | ID Code | ID Code type | Asset pledged as collateral | Security Title | Issuer Name | Issuer Sector | Issuer Group (Code) | Issuer Country | Country of custody |
| Cell Number | A50 | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 |

| | Categorisation section | | Risk section | | | Data section | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Currency (ISO code) | CIC | External rating | Rating agency | Duration | Quantity | Unit SII price | Valuation method SII | Acquisition price | Total SII amount | Maturity date | Accrued interest |
| Cell Number | A13 | A15 | A17 | A18 | A20 | A22 | A23 | A24 | A25 | A26=A22*A23 +A30 | A28 | A30 |

DPM creation (DPM file)

EIOPA Business Experts

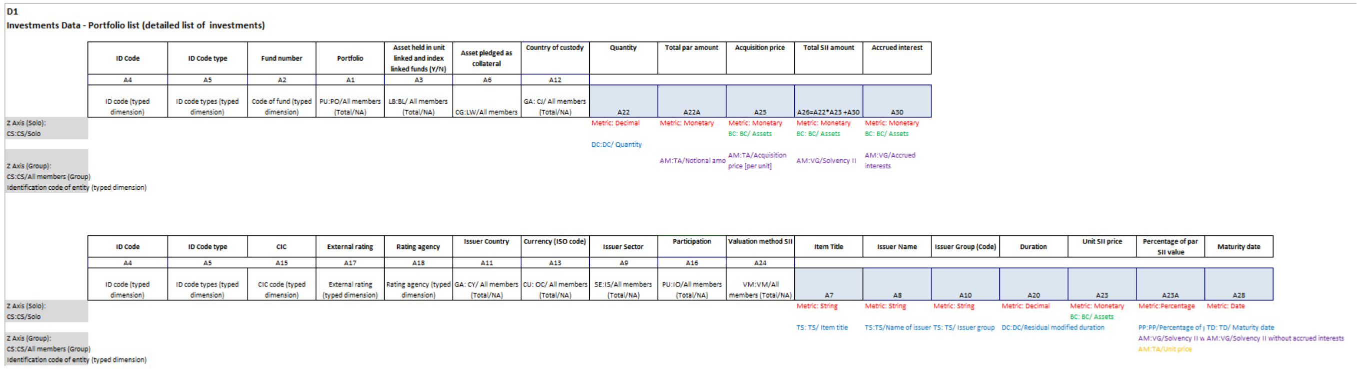


| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Label | Name | Default | Owner | Count | Comment | Hierarchy | Name | Sign | Weight | Owner | Usable | Applicabl | Comment | | | |
| 2 | Total/NA | x0 | yes | | 24 | | 1: Insurance classes | | | | | | CB | | | | |
| 3 | [O] Other | x1 | | | 1 | | Total/NA | x0 | = | | | | | | | | |
| 4 | 1. Accident and sickness | x2 | | | 2 | | Non-life | x79 | = | + | | | | | | | |
| 5 | 2. Motor | x3 | | | 2 | | 1. Accident and sickness | x2 | | + | | | | | | | |
| 6 | 3. Fire and other damage to property | x4 | | | 2 | | 2. Motor | x3 | = | + | | | | | | | |
| 7 | 4. Aviation, marine and transport | x5 | | | 2 | | Motor vehicle liability insurance [except carrier's liability] | x78 | | + | | | | Country - K1 | | | |
| 8 | 5. General liability | x6 | | | 2 | | Motor other than motor vehicle liability insurance [except carrier's liability] | x76 | | + | | | | Country - K1 | | | |
| 9 | 6. Credit and suretyship | x7 | | | 2 | | 3. Fire and other damage to property | x4 | | + | | | | | | | |
| 10 | 7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship | x8 | | | 2 | | 4. Aviation, marine and transport | x5 | | + | | | | | | | |
| 11 | ABS [asset backed securities] | x9 | | | 1 | | 5. General liability | x6 | | + | | | | | | | |
| 12 | Annuities stemming from non-life insurance contracts | x10 | | | 1 | | 6. Credit and suretyship | x7 | | + | | | | | | | |
| | | | | | | | 7. Non-life other than accident and sickness, motor, fire | | | | | | | | | | |

Owners / Domains / Dimensions / met / BC / MC / AM / VM / DI / TR / TB / PU / SE / CG / LB / EL / CS / CM / CU / GA / PI / TS / LT / TD / NT / BR / PP / DC / CE / TI / RT / SC / PC / EX / AP / Typed domains / TypedDomains

Templates normalization (if required) and annotation

EIOPA Business Experts



D1

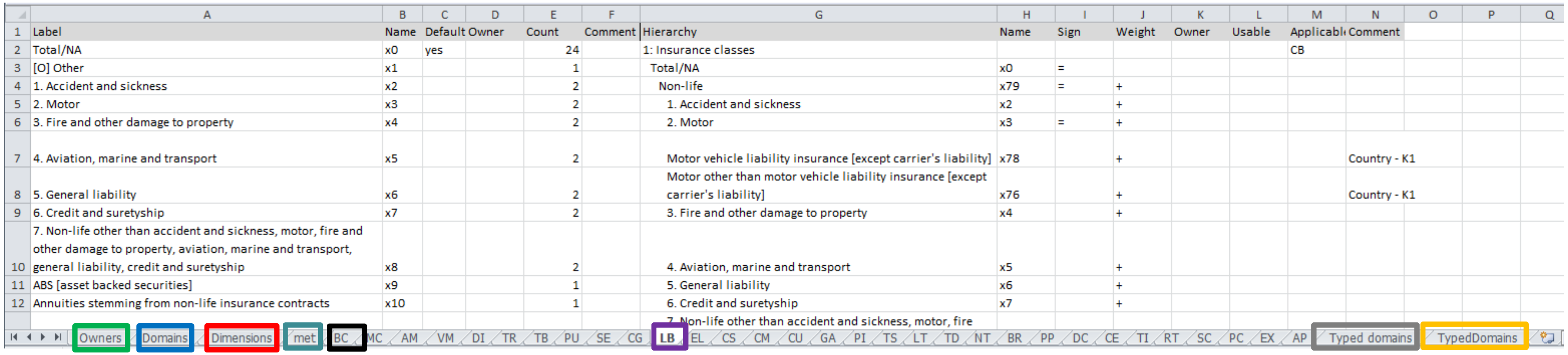
Investments Data - Portfolio list (detailed list of investments)

| | ID Code | ID Code type | Fund number | Portfolio | Asset held in unit linked and index linked funds (Y/N) | Asset pledged as collateral | Country of custody | Quantity | Total par amount | Acquisition price | Total SII amount | Accrued interest |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A4 | A5 | A2 | A1 | A3 | A6 | A12 | | | | | |
| | ID code (typed dimension) | ID code types (typed dimension) | Code of fund (typed dimension) | PU:PO/All members (Total/NA) | LB:BL/ All members (Total/NA) | CG:LW/All members | GA: CJ/ All members (Total/NA) | A22 | A22A | A25 | A26=A22*A23 +A30 | A30 |
| Z Axis (Solo):<br>CS:CS/Solo | | | | | | | | Metric: Decimal<br>DC:DC/ Quantity | Metric: Monetary | Metric: Monetary<br>BC: BC/ Assets | Metric: Monetary<br>BC: BC/ Assets | Metric: Monetary<br>BC: BC/ Assets |
| Z Axis (Group):<br>CS:CS/All members (Group)<br>Identification code of entity (typed dimension) | | | | | | | | | AM:TA/Notional amo | AM:TA/Acquisition price [per unit] | AM:VG/Solvency II | AM:VG/Accrued interests |

| | ID Code | ID Code type | CIC | External rating | Rating agency | Issuer Country | Currency (ISO code) | Issuer Sector | Participation | Valuation method SII | Item Title | Issuer Name | Issuer Group (Code) | Duration | Unit SII price | Percentage of par SII value | Maturity date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A4 | A5 | A15 | A17 | A18 | A11 | A13 | A9 | A16 | A24 | | | | | | | |
| | ID code (typed dimension) | ID code types (typed dimension) | CIC code (typed dimension) | External rating (typed dimension) | Rating agency (typed dimension) | GA: CY/ All members (Total/NA) | CU: OC/ All members (Total/NA) | SE:IS/All members (Total/NA) | PU:IO/All members (Total/NA) | VM:VM/All members (Total/NA) | A7 | A8 | A10 | A20 | A23 | A23A | A28 |
| Z Axis (Solo):<br>CS:CS/Solo | | | | | | | | | | | Metric: String | Metric: String | Metric: String | Metric: Decimal | Metric: Monetary<br>BC: BC/ Assets | Metric:Percentage | Metric: Date |
| Z Axis (Group):<br>CS:CS/All members (Group)<br>Identification code of entity (typed dimension) | | | | | | | | | | | TS: TS/ Item title | TS:TS/Name of issuer | TS: TS/ Issuer group | DC:DC/Residual modified duration | | PP:PP/Percentage of<br>AM:VG/Solvency II w<br>AM:TA/Unit price | TD: TD/ Maturity date<br>AM:VG/Solvency II without accrued interests |

# Components of DPM file

DPM is a dictionary of business concepts and their properties used in tables (explicitly indicated in annotation) identifying the content of every data point and its relation to other data points



| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Label | Name | Default | Owner | Count | Comment | Hierarchy | Name | Sign | Weight | Owner | Usable | Applicabl | Comment | | | |
| 2 | Total/NA | x0 | yes | | 24 | | 1: Insurance classes | | | | | | CB | | | | |
| 3 | [O] Other | x1 | | | 1 | | Total/NA | x0 | = | | | | | | | | |
| 4 | 1. Accident and sickness | x2 | | | 2 | | Non-life | x79 | = | + | | | | | | | |
| 5 | 2. Motor | x3 | | | 2 | | 1. Accident and sickness | x2 | | + | | | | | | | |
| 6 | 3. Fire and other damage to property | x4 | | | 2 | | 2. Motor | x3 | = | + | | | | | | | |
| 7 | 4. Aviation, marine and transport | x5 | | | 2 | | Motor vehicle liability insurance [except carrier's liability] | x78 | | + | | | | Country - K1 | | | |
| 8 | 5. General liability | x6 | | | 2 | | Motor other than motor vehicle liability insurance [except carrier's liability] | x76 | | + | | | | Country - K1 | | | |
| 9 | 6. Credit and suretyship | x7 | | | 2 | | 3. Fire and other damage to property | x4 | | + | | | | | | | |
| 10 | 7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship | x8 | | | 2 | | 4. Aviation, marine and transport | x5 | | + | | | | | | | |
| 11 | ABS [asset backed securities] | x9 | | | 1 | | 5. General liability | x6 | | + | | | | | | | |
| 12 | Annuities stemming from non-life insurance contracts | x10 | | | 1 | | 6. Credit and suretyship | x7 | | + | | | | | | | |
| | | | | | | | 7. Non-life other than accident and sickness, motor, fire | | | | | | | | | | |

Owner of the DPM and potentialy the XBRL taxonomy based on it

List od domains of information identified in the tables/data model (i.e. Currencies)

List of dimensions: perspectives for subdomains analysis (i.e. Original currency or Reporting currency)

List of Metrics used in the dictionary. Each represents different data type

List of basic concepts identifying the most generic information of every data point (i.e. Assets, Claims paid)

Explicit domain (from the domain list) identifying related dimensions, domain members and its hierarchical subdomains (see next slide)

Typed domains (and its data types) used in the model

Typed dimensions used in the model

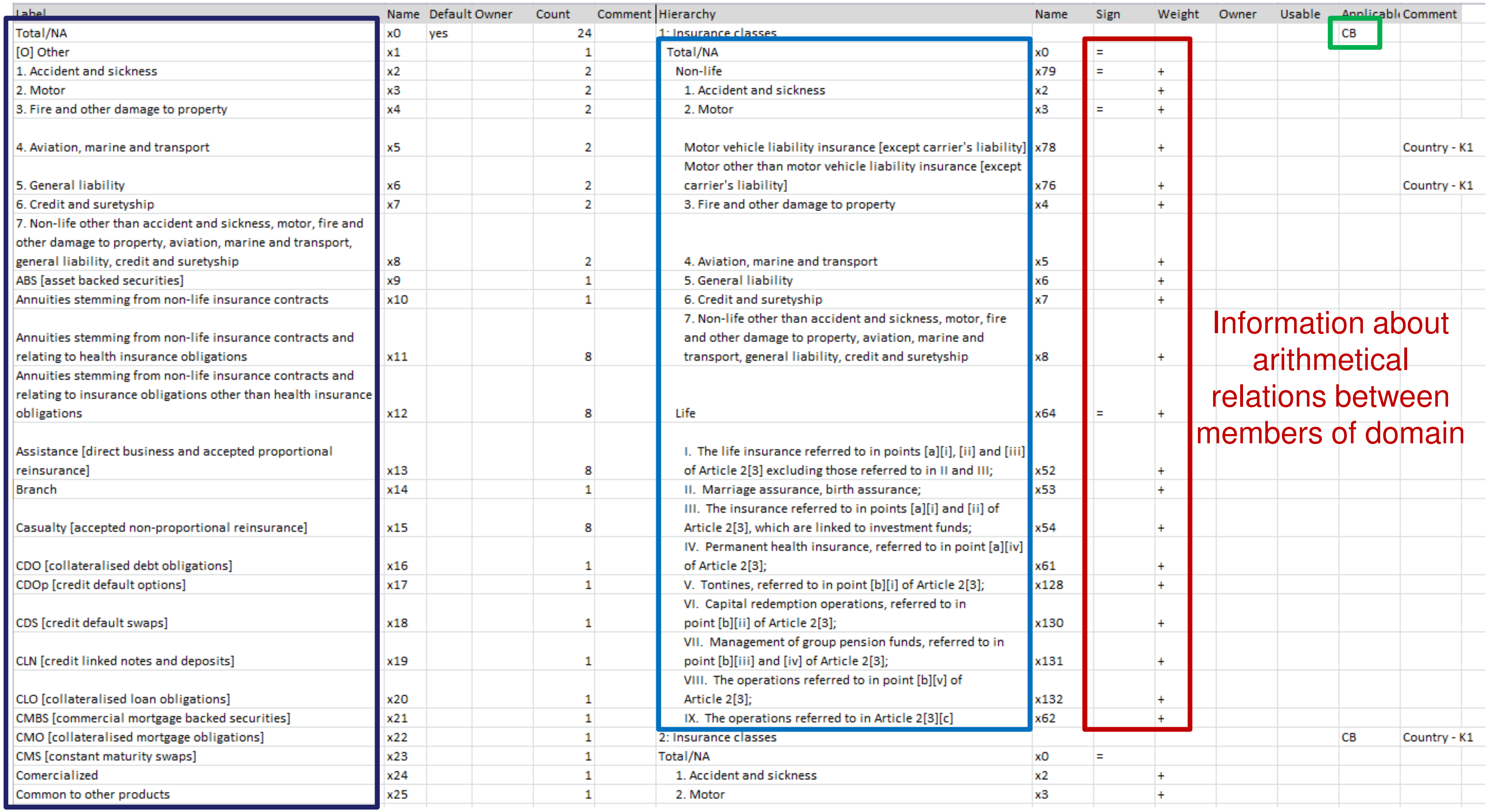
# Domains/dimensions in DPM dictionary

List of all members of domain

Information about hierarchy of members of subdomain

Dimension (perspective for subdomain analysis)

Information about arithmetical relations between members of domain

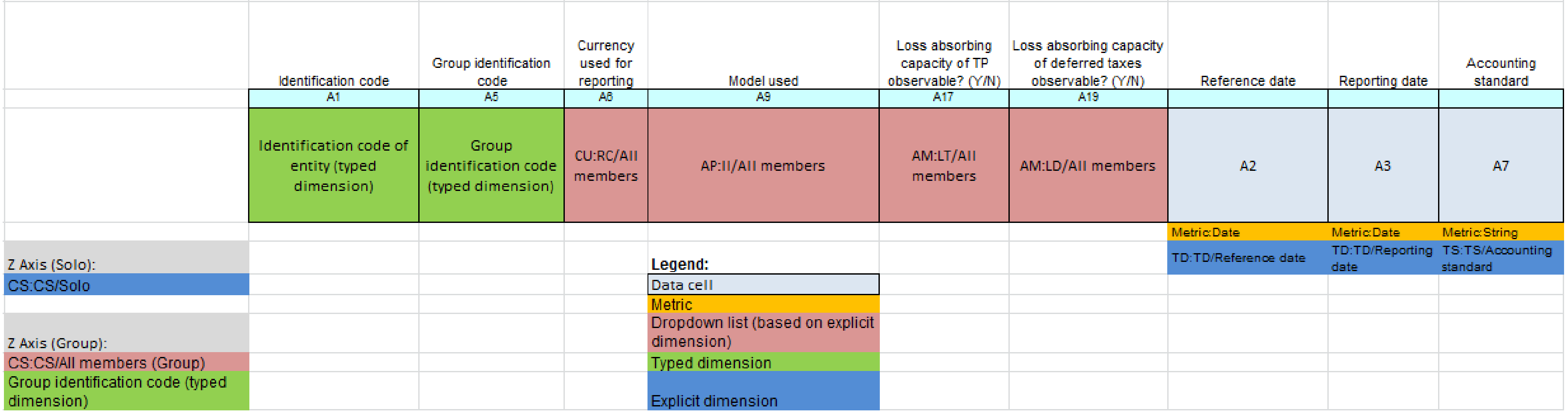


| Label | Name | Default | Owner | Count | Comment | Hierarchy | Name | Sign | Weight | Owner | Usable | Applicabl | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | x0 | yes | | 24 | | 1: Insurance classes | | | | | | CB | |
| [O] Other | x1 | | | 1 | | Total/NA | x0 | = | | | | | |
| 1. Accident and sickness | x2 | | | 2 | | Non-life | x79 | = | + | | | | |
| 2. Motor | x3 | | | 2 | | 1. Accident and sickness | x2 | | + | | | | |
| 3. Fire and other damage to property | x4 | | | 2 | | 2. Motor | x3 | = | + | | | | |
| 4. Aviation, marine and transport | x5 | | | 2 | | Motor vehicle liability insurance [except carrier's liability] | x78 | | + | | | | Country - K1 |
| 5. General liability | x6 | | | 2 | | Motor other than motor vehicle liability insurance [except carrier's liability] | x76 | | + | | | | Country - K1 |
| 6. Credit and suretyship | x7 | | | 2 | | 3. Fire and other damage to property | x4 | | + | | | | |
| 7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship | x8 | | | 2 | | 4. Aviation, marine and transport | x5 | | + | | | | |
| ABS [asset backed securities] | x9 | | | 1 | | 5. General liability | x6 | | + | | | | |
| Annuities stemming from non-life insurance contracts | x10 | | | 1 | | 6. Credit and suretyship | x7 | | + | | | | |
| Annuities stemming from non-life insurance contracts and relating to health insurance obligations | x11 | | | 8 | | 7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship | x8 | | + | | | | |
| Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations | x12 | | | 8 | | Life | x64 | = | + | | | | |
| Assistance [direct business and accepted proportional reinsurance] | x13 | | | 8 | | I. The life insurance referred to in points [a][i], [ii] and [iii] of Article 2[3] excluding those referred to in II and III; | x52 | | + | | | | |
| Branch | x14 | | | 1 | | II. Marriage assurance, birth assurance; | x53 | | + | | | | |
| Casualty [accepted non-proportional reinsurance] | x15 | | | 8 | | III. The insurance referred to in points [a][i] and [ii] of Article 2[3], which are linked to investment funds; | x54 | | + | | | | |
| CDO [collateralised debt obligations] | x16 | | | 1 | | IV. Permanent health insurance, referred to in point [a][iv] of Article 2[3]; | x61 | | + | | | | |
| CDOp [credit default options] | x17 | | | 1 | | V. Tontines, referred to in point [b][i] of Article 2[3]; | x128 | | + | | | | |
| CDS [credit default swaps] | x18 | | | 1 | | VI. Capital redemption operations, referred to in point [b][ii] of Article 2[3]; | x130 | | + | | | | |
| CLN [credit linked notes and deposits] | x19 | | | 1 | | VII. Management of group pension funds, referred to in point [b][iii] and [iv] of Article 2[3]; | x131 | | + | | | | |
| CLO [collateralised loan obligations] | x20 | | | 1 | | VIII. The operations referred to in point [b][v] of Article 2[3]; | x132 | | + | | | | |
| CMBS [commercial mortgage backed securities] | x21 | | | 1 | | IX. The operations referred to in Article 2[3][c] | x62 | | + | | | | |
| CMO [collateralised mortgage obligations] | x22 | | | 1 | | 2: Insurance classes | | | | | | CB | Country - K1 |
| CMS [constant maturity swaps] | x23 | | | 1 | | Total/NA | x0 | = | | | | | |
| Comercialized | x24 | | | 1 | | 1. Accident and sickness | x2 | | + | | | | |
| Common to other products | x25 | | | 1 | | 2. Motor | x3 | | + | | | | |

# Templates annotation:
# Types of annotations

- metric
  - indication of a data type (type of expected value) to be reported for data point (every data point must have one and only one Metric)
  - annotation: „Metric: {metric name}”, where {metric name} could be „String”, „Decimal”, „Monetary”, etc.
- explicit dimension
  - breakdowns with predefined values (members); members are gathered in domains (lists of members) and subdomains (hierarchies of members)
  - annotation:
    - „{domain code}:{dimension code}/{member name}” – pairs of dimension members
    - „{domain code}:{dimension code}/All members ({name of starting member})”
      - information about sets of pairs of dimension-members
      - {name of starting member} is optional and identifies the top level domain member opening the list of domain members potentially to be used; subdomain to be applied is identified in the DPM file in column “Comment”; if {name of starting member} is missing then all domain members of a subdomain are applicable for a data point
- typed dimension
  - constraint of this breakdown is defined by a type, not by explicitly listing the applicable values, e.g. „non negative integer” could be a typed domain of a typed dimension
  - annotation: „{dimension code} (typed dimension)”

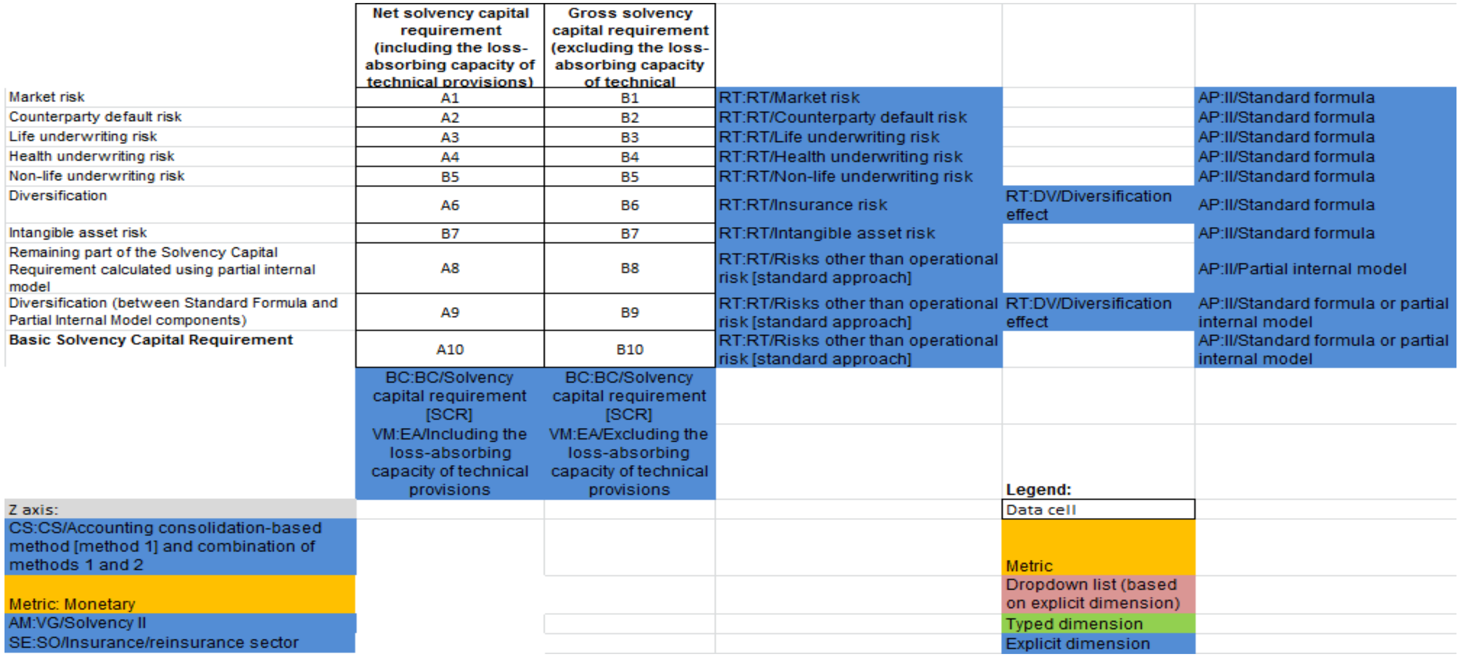
# Templates annotation: Organization of annotation of open table



| | Identification code | Group identification code | Currency used for reporting | Model used | Loss absorbing capacity of TP observable? (Y/N) | Loss absorbing capacity of deferred taxes observable? (Y/N) | Reference date | Reporting date | Accounting standard |
|---|---|---|---|---|---|---|---|---|---|
| | A1 | A5 | A6 | A9 | A17 | A19 | | | |
| | Identification code of entity (typed dimension) | Group identification code (typed dimension) | CU:RC/All members | AP:II/All members | AM:LT/All members | AM:LD/All members | A2 | A3 | A7 |
| | | | | | | | Metric:Date | Metric:Date | Metric:String |
| Z Axis (Solo): | | | | **Legend:** | | | TD:TD/Reference date | TD:TD/Reporting date | TS:TS/Accounting standard |
| CS:CS/Solo | | | | Data cell | | | | | |
| | | | | Metric | | | | | |
| Z Axis (Group): | | | | Dropdown list (based on explicit dimension) | | | | | |
| CS:CS/All members (Group) | | | | Typed dimension | | | | | |
| Group identification code (typed dimension) | | | | Explicit dimension | | | | | |

- for open table the annotation is ordered as follows from the left hand side:
  - properties of data points
    - typed dimensions (must be at least one – otherwise the table would not be open)
    - „dropdown lists" based on explicit dimensions (may not appear in every open table)
  - data points: metrics with ordinary explicit dimensions (must be at least one, could be atrificial boolean item in case of join tables)
  - in lower-left side there are attributes applicable to entire table
    - ore than one sets of those attributes is possible (multiplying the number of occurrences of those tables)
    - attributes in each set could be (i) metrics, (ii) typed dimension (number of occurrences of table would become theoretically unlimited), (iii) explicit dimension or (iv) dropdown list (number of occurrences of table is limited to a number of members in the subdomain used)

# Templates annotation: Organization of annotation of closed table



| | Net solvency capital requirement (including the loss-absorbing capacity of technical provisions) | Gross solvency capital requirement (excluding the loss-absorbing capacity of technical | | | |
|---|---|---|---|---|---|
| Market risk | A1 | B1 | RT:RT/Market risk | | AP:II/Standard formula |
| Counterparty default risk | A2 | B2 | RT:RT/Counterparty default risk | | AP:II/Standard formula |
| Life underwriting risk | A3 | B3 | RT:RT/Life underwriting risk | | AP:II/Standard formula |
| Health underwriting risk | A4 | B4 | RT:RT/Health underwriting risk | | AP:II/Standard formula |
| Non-life underwriting risk | B5 | B5 | RT:RT/Non-life underwriting risk | | AP:II/Standard formula |
| Diversification | A6 | B6 | RT:RT/Insurance risk | RT:DV/Diversification effect | AP:II/Standard formula |
| Intangible asset risk | B7 | B7 | RT:RT/Intangible asset risk | | AP:II/Standard formula |
| Remaining part of the Solvency Capital Requirement calculated using partial internal model | A8 | B8 | RT:RT/Risks other than operational risk [standard approach] | | AP:II/Partial internal model |
| Diversification (between Standard Formula and Partial Internal Model components) | A9 | B9 | RT:RT/Risks other than operational risk [standard approach] | RT:DV/Diversification effect | AP:II/Standard formula or partial internal model |
| **Basic Solvency Capital Requirement** | A10 | B10 | RT:RT/Risks other than operational risk [standard approach] | | AP:II/Standard formula or partial internal model |
| | BC:BC/Solvency capital requirement [SCR]<br>VM:EA/Including the loss-absorbing capacity of technical provisions | BC:BC/Solvency capital requirement [SCR]<br>VM:EA/Excluding the loss-absorbing capacity of technical provisions | | | |

Z axis:
CS:CS/Accounting consolidation-based method [method 1] and combination of methods 1 and 2
Metric: Monetary
AM:VG/Solvency II
SE:SO/Insurance/reinsurance sector

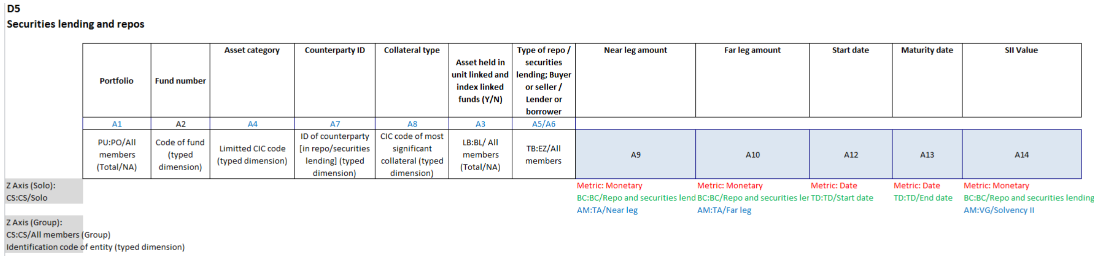
**Legend:**
Data cell
Metric
Dropdown list (based on explicit dimension)
Typed dimension
Explicit dimension

- explicit dimensions differentiating information:
  - across columns - identified below the table
  - across rows - identified to the right from the table
  - it can be only (i) Metrics, (ii) Explicit dimensions or (iii) Dropdown lists
- in lower-left hand side there are attributes applicable to the entire table
  - more than one sets of those attributes is possible (multiplying the number of occurrences of those tables)
  - attributes in each set could be (i) Metrics, (ii) Explicit dimension or (iii) Dropdown list (number of occurrences of table is limited to a number of members in Subdomain used), (iv) Typed dimension (number of occurrences of table would become theoretically unlimited)

# Templates annotation:
# Annotating „similar” templates

Z-axis mechanizm

- difference could be identified using a dropdown list in the header of a table multiplying the views (e.g. scope of consolidation)

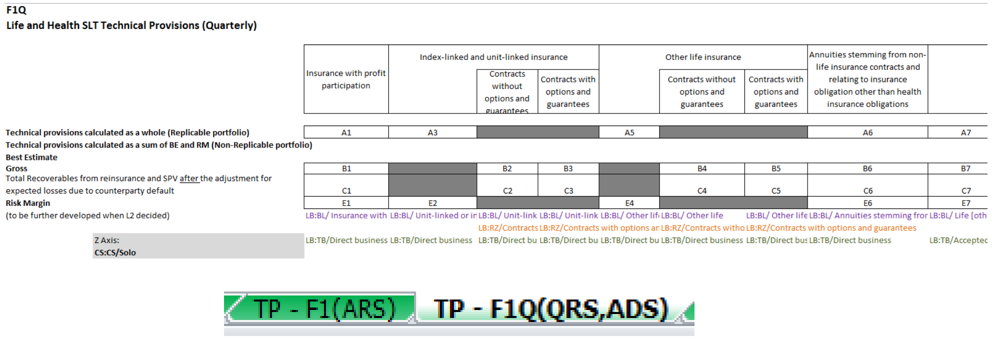


**D5**
**Securities lending and repos**

| | Portfolio | Fund number | Asset category | Counterparty ID | Collateral type | Asset held in unit linked and index linked funds (Y/N) | Type of repo / securities lending; Buyer or seller / Lender or borrower | Near leg amount | Far leg amount | Start date | Maturity date | SII Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A1 | A2 | A4 | A7 | A8 | A3 | A5/A6 | | | | | |
| | PU:PO/All members (Total/NA) | Code of fund (typed dimension) | Limitted CIC code (typed dimension) | ID of counterparty [in repo/securities lending] (typed dimension) | CIC code of most significant collateral (typed dimension) | LB:BL/ All members (Total/NA) | TB:EZ/All members | A9 | A10 | A12 | A13 | A14 |
| Z Axis (Solo):<br>CS:CS/Solo | | | | | | | | Metric: Monetary<br>BC:BC/Repo and securities lend<br>AM:TA/Near leg | Metric: Monetary<br>BC:BC/Repo and securities ler<br>AM:TA/Far leg | Metric: Date<br>TD:TD/Start date | Metric: Date<br>TD:TD/End date | Metric: Monetary<br>BC:BC/Repo and securities lending<br>AM:VG/Solvency II |
| Z Axis (Group):<br>CS:CS/All members (Group)<br>Identification code of entity (typed dimension) | | | | | | | | | | | | |

Multiplication of tables/worksheets

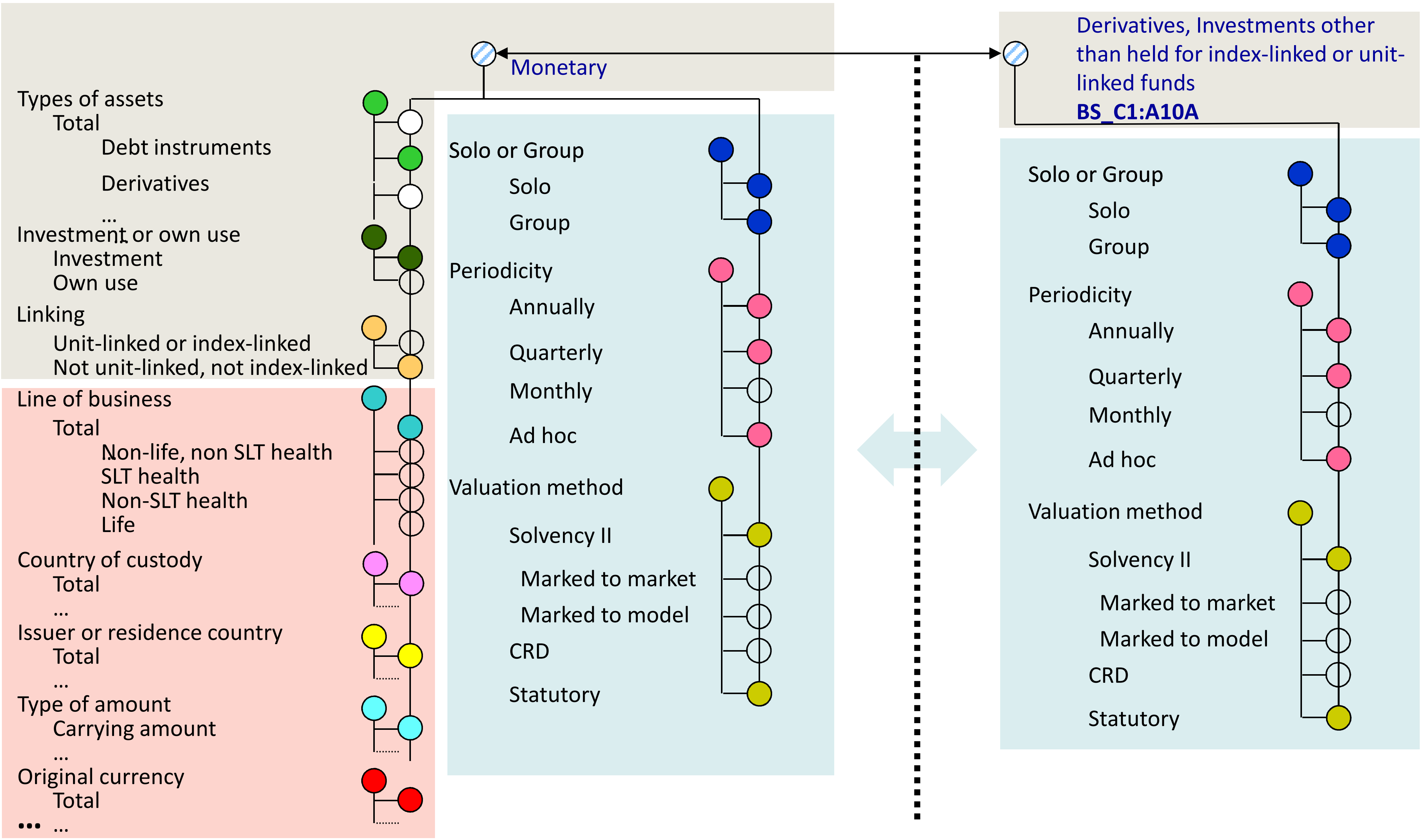
- differences in number of rows/columns result in multiplication of tables



**F1Q**
**Life and Health SLT Technical Provisions (Quarterly)**

| | Insurance with profit participation | Index-linked and unit-linked insurance | | | Other life insurance | | | Annuities stemming from non-life insurance contracts and relating to insurance obligation other than health insurance obligations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Contracts without options and guarantees | Contracts with options and guarantees | | Contracts without options and guarantees | Contracts with options and guarantees | | |
| **Technical provisions calculated as a whole (Replicable portfolio)** | A1 | A3 | ▨ | ▨ | A5 | ▨ | ▨ | A6 | A7 |
| **Technical provisions calculated as a sum of BE and RM (Non-Replicable portfolio)** | | | | | | | | | |
| **Best Estimate** | | | | | | | | | |
| **Gross** | B1 | ▨ | B2 | B3 | ▨ | B4 | B5 | B6 | B7 |
| Total Recoverables from reinsurance and SPV after the adjustment for expected losses due to counterparty default | C1 | ▨ | C2 | C3 | ▨ | C4 | C5 | C6 | C7 |
| **Risk Margin** | E1 | E2 | ▨ | ▨ | E4 | ▨ | ▨ | E6 | E7 |
| (to be further developed when L2 decided) | LB:BL/ Insurance with | LB:BL/ Unit-linked or in | LB:BL/ Unit-link | LB:BL/ Unit-link | LB:BL/ Other lif | LB:BL/ Other life | LB:BL/ Other life | LB:BL/ Annuities stemming fror | LB:BL/ Life [oth |
| | | | LB:RZ/Contracts | LB:RZ/Contracts with options an | | LB:RZ/Contracts witho | LB:RZ/Contracts with options and guarantees | | |
| Z Axis:<br>**CS:CS/Solo** | LB:TB/Direct business | LB:TB/Direct business | LB:TB/Direct bu | LB:TB/Direct bu | LB:TB/Direct bu | LB:TB/Direct business | LB:TB/Direct bus | LB:TB/Direct business | LB:TB/Acceptec |

# Benefits of two layers



**Highly dimensional approach**

Monetary

Types of assets
    Total
        Debt instruments
        Derivatives
        …
Investment or own use
    Investment
    Own use
Linking
    Unit-linked or index-linked
    Not unit-linked, not index-linked
Line of business
    Total
        Non-life, non SLT health
        SLT health
        Non-SLT health
        Life
Country of custody
    Total
    …
Issuer or residence country
    Total
    …
Type of amount
    Carrying amount
    …
Original currency
    Total
••• …

Solo or Group
    Solo
    Group
Periodicity
    Annually
    Quarterly
    Monthly
    Ad hoc
Valuation method
    Solvency II
        Marked to market
        Marked to model
    CRD
    Statutory

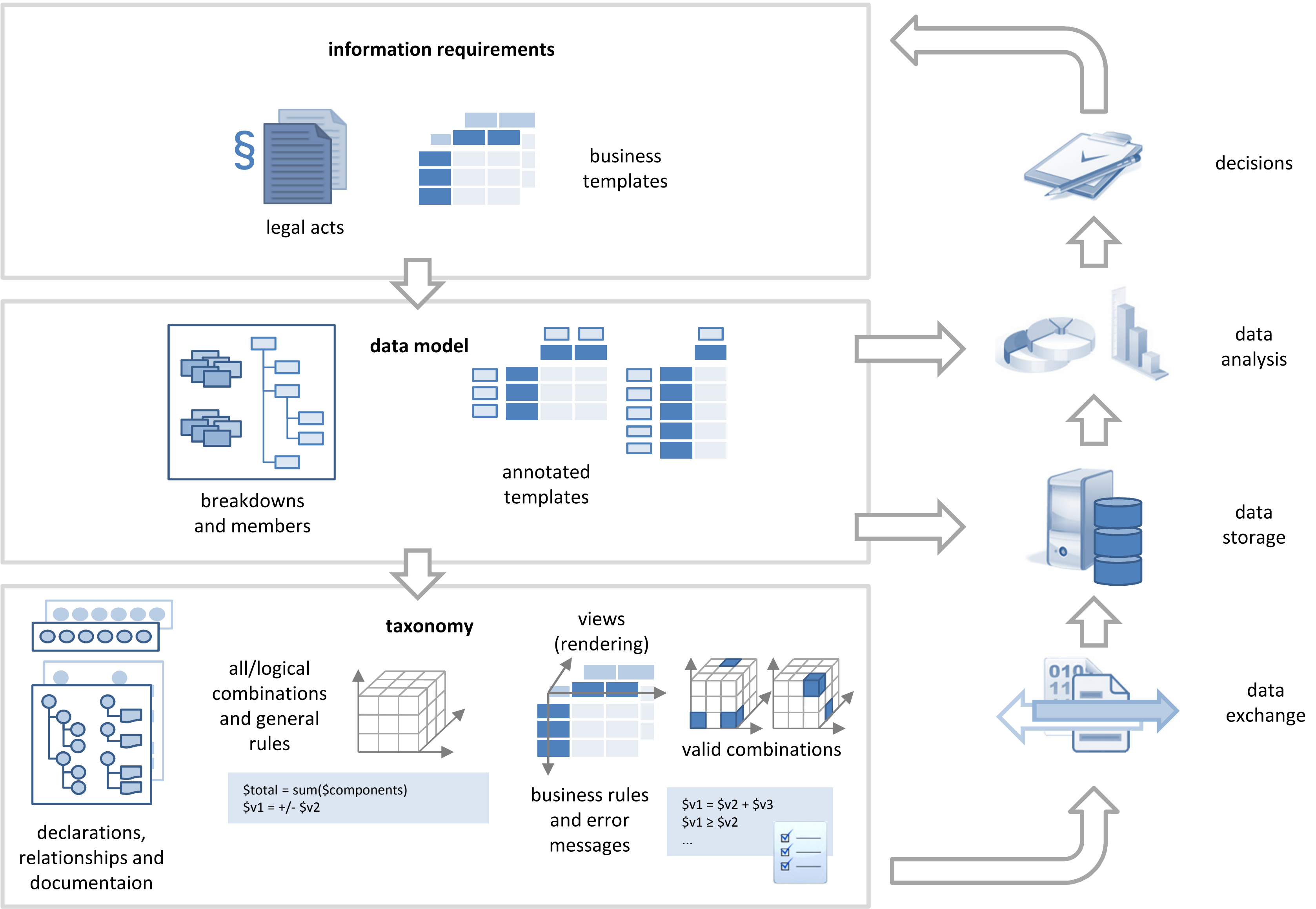
**Moderate dimensional approach**

Derivatives, Investments other than held for index-linked or unit-linked funds
**BS_C1:A10A**

Solo or Group
    Solo
    Group
Periodicity
    Annually
    Quarterly
    Monthly
    Ad hoc
Valuation method
    Solvency II
        Marked to market
        Marked to model
    CRD
    Statutory

# 4. Proof-of concept taxonomy

# DPM and XBRL Taxonomy
# Development process and relationships



**information requirements**

legal acts

business templates

**data model**

breakdowns and members

annotated templates

**taxonomy**

declarations, relationships and documentaion

all/logical combinations and general rules

`$total = sum($components)`
`$v1 = +/- $v2`

views (rendering)

valid combinations

business rules and error messages

`$v1 = $v2 + $v3`
`$v1 ≥ $v2`
…

decisions

data analysis

data storage

data exchange

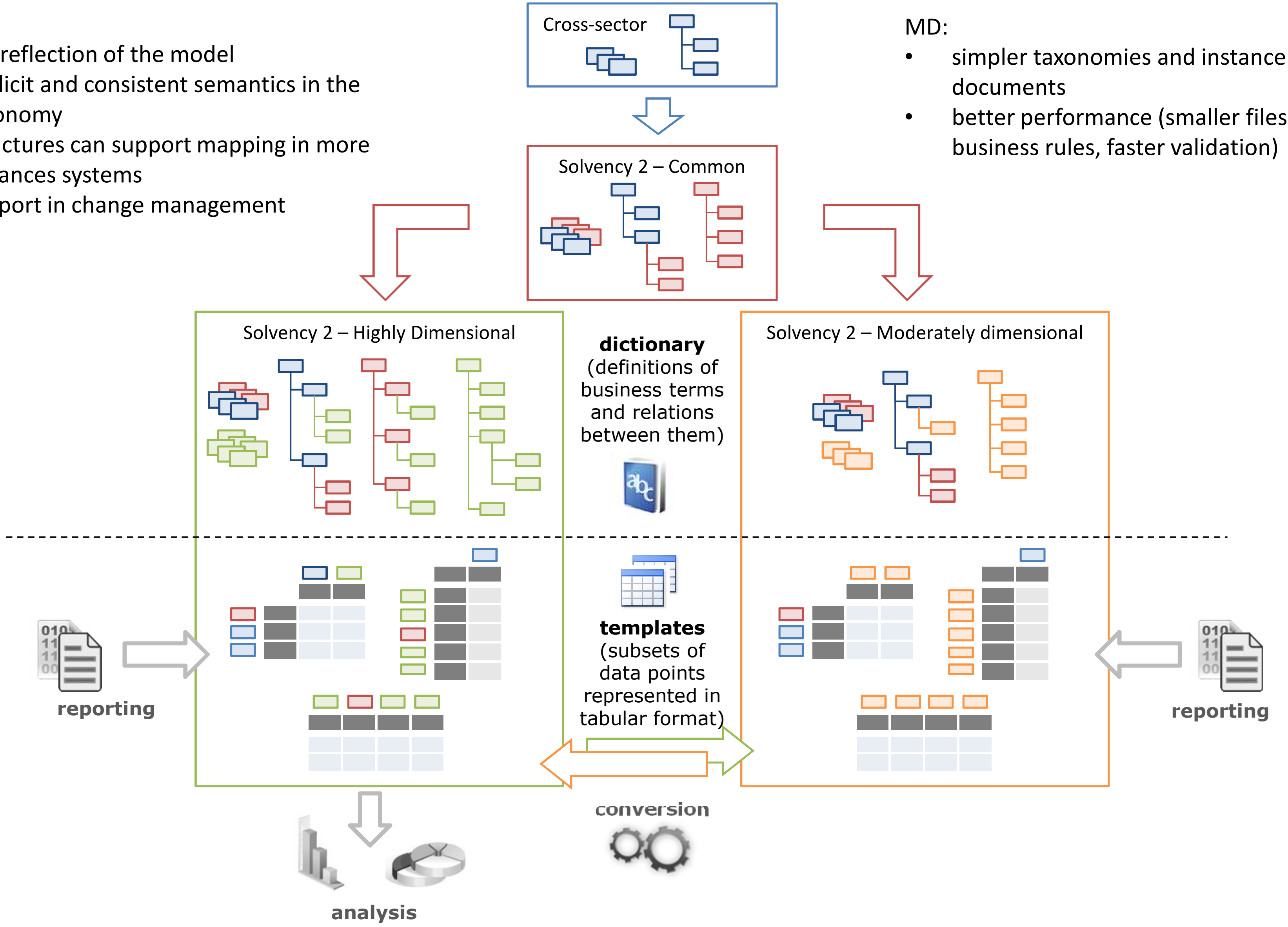
# POC XBRL Taxonomy modularization

HD:

- 1:1 reflection of the model
- explicit and consistent semantics in the taxonomy
- structures can support mapping in more advances systems
- support in change management

MD:

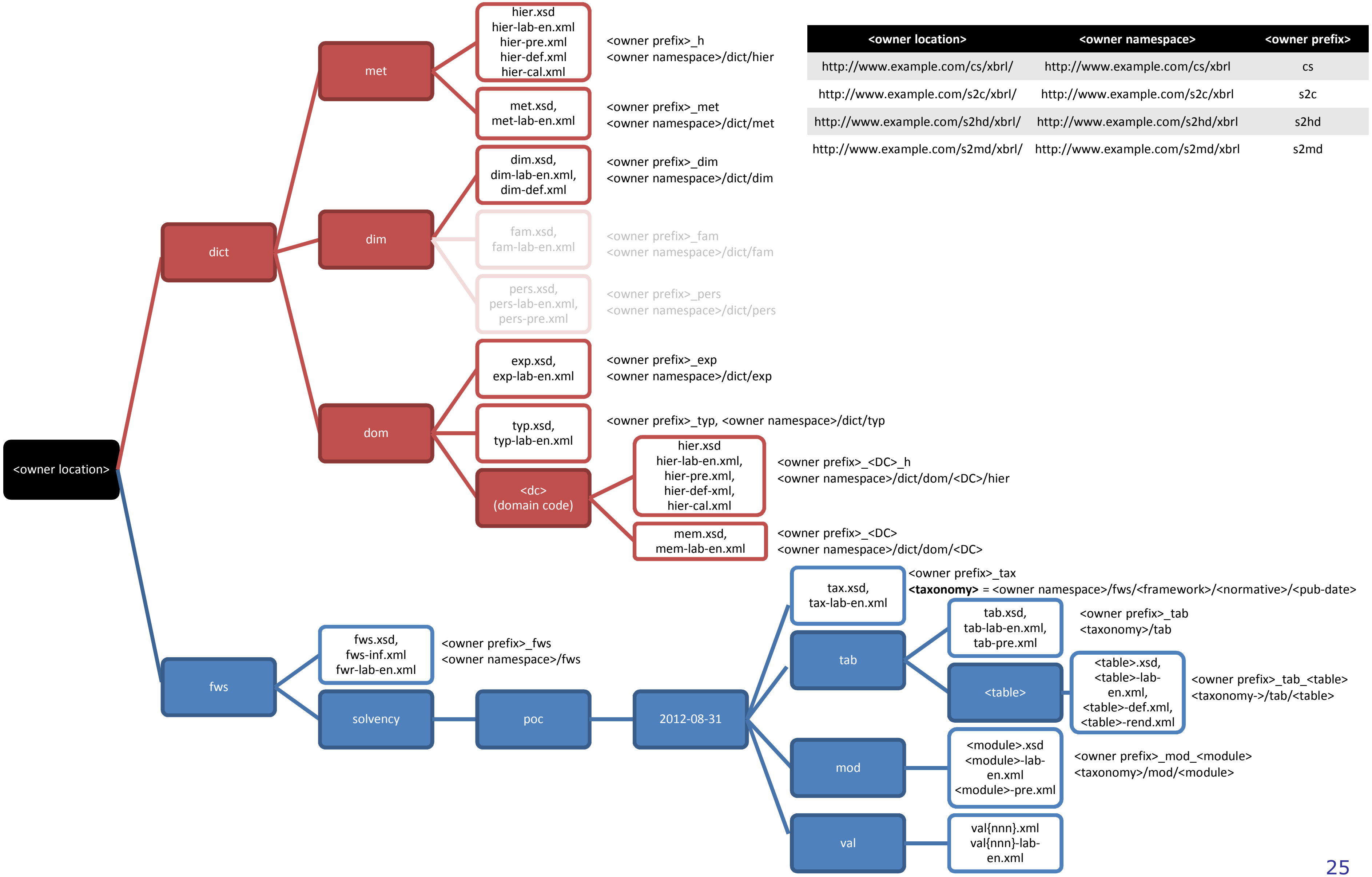
- simpler taxonomies and instance documents
- better performance (smaller files, simpler business rules, faster validation)



Cross-sector
Solvency 2 – Common
Solvency 2 – Highly Dimensional
Solvency 2 – Moderately dimensional
**dictionary**
(definitions of business terms and relations between them)
**templates**
(subsets of data points represented in tabular format)
reporting
reporting
conversion
analysis
010
11
11
00

# POC Taxonomy Architecture and Content

| <owner location> | <owner namespace> | <owner prefix> |
|---|---|---|
| http://www.example.com/cs/xbrl/ | http://www.example.com/cs/xbrl | cs |
| http://www.example.com/s2c/xbrl/ | http://www.example.com/s2c/xbrl | s2c |
| http://www.example.com/s2hd/xbrl/ | http://www.example.com/s2hd/xbrl | s2hd |
| http://www.example.com/s2md/xbrl/ | http://www.example.com/s2md/xbrl | s2md |



<owner location>

dict

met

hier.xsd
hier-lab-en.xml
hier-pre.xml
hier-def.xml
hier-cal.xml

<owner prefix>_h
<owner namespace>/dict/hier

met.xsd,
met-lab-en.xml

<owner prefix>_met
<owner namespace>/dict/met

dim

dim.xsd,
dim-lab-en.xml,
dim-def.xml

<owner prefix>_dim
<owner namespace>/dict/dim

fam.xsd,
fam-lab-en.xml

<owner prefix>_fam
<owner namespace>/dict/fam

pers.xsd,
pers-lab-en.xml,
pers-pre.xml

<owner prefix>_pers
<owner namespace>/dict/pers

dom

exp.xsd,
exp-lab-en.xml

<owner prefix>_exp
<owner namespace>/dict/exp

typ.xsd,
typ-lab-en.xml

<owner prefix>_typ, <owner namespace>/dict/typ

<dc>
(domain code)

hier.xsd
hier-lab-en.xml,
hier-pre.xml,
hier-def-xml,
hier-cal.xml

<owner prefix>_<DC>_h
<owner namespace>/dict/dom/<DC>/hier

mem.xsd,
mem-lab-en.xml

<owner prefix>_<DC>
<owner namespace>/dict/dom/<DC>

fws

fws.xsd,
fws-inf.xml
fwr-lab-en.xml

<owner prefix>_fws
<owner namespace>/fws

solvency

poc

2012-08-31

tax.xsd,
tax-lab-en.xml

<owner prefix>_tax
**<taxonomy>** = <owner namespace>/fws/<framework>/<normative>/<pub-date>

tab

tab.xsd,
tab-lab-en.xml,
tab-pre.xml

<owner prefix>_tab
<taxonomy>/tab

<table>

<table>.xsd,
<table>-lab-en.xml,
<table>-def.xml,
<table>-rend.xml

<owner prefix>_tab_<table>
<taxonomy->/tab/<table>

mod

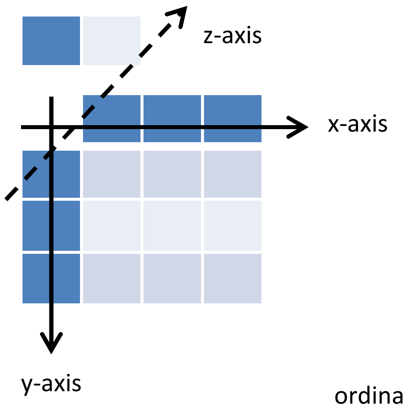
<module>.xsd
<module>-lab-en.xml
<module>-pre.xml

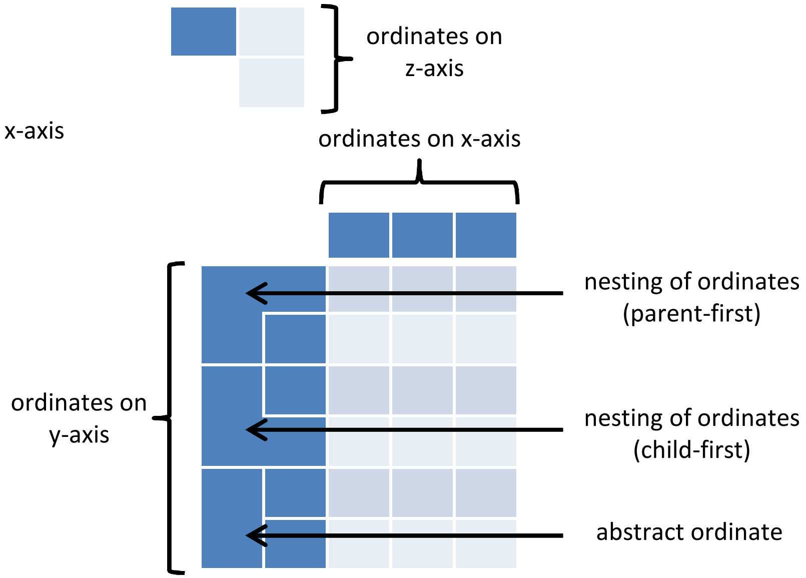
<owner prefix>_mod_<module>
<taxonomy>/mod/<module>

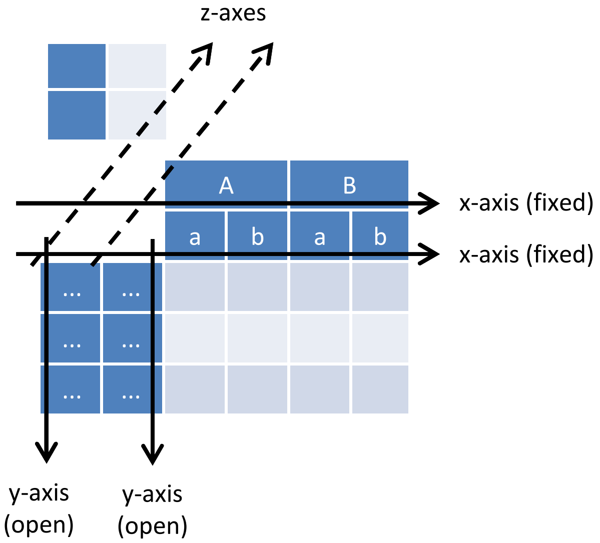
val

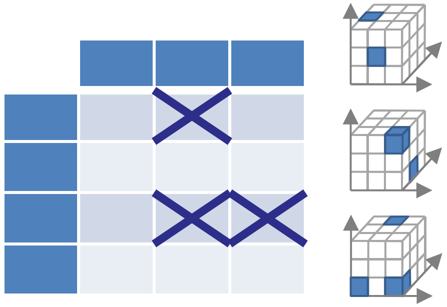
val{nnn}.xml
val{nnn}-lab-en.xml

# Rendering of tables and valid combinations in XBRL

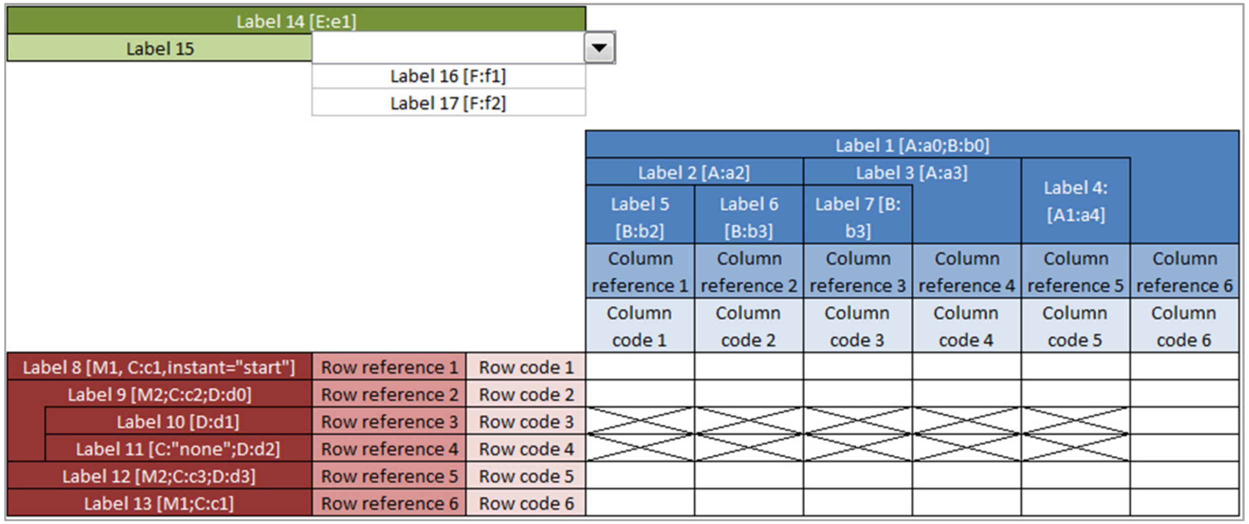

z-axis
x-axis
y-axis


ordinates on z-axis
ordinates on x-axis
nesting of ordinates (parent-first)
ordinates on y-axis
nesting of ordinates (child-first)
abstract ordinate


z-axes
A
B
x-axis (fixed)
a
b
a
b
x-axis (fixed)
...
...
...
...
...
...
y-axis (open)
y-axis (open)



valid combinations come from hypercubes (XBRL Dimensions in definition linkbase)



Label 14 [E:e1]

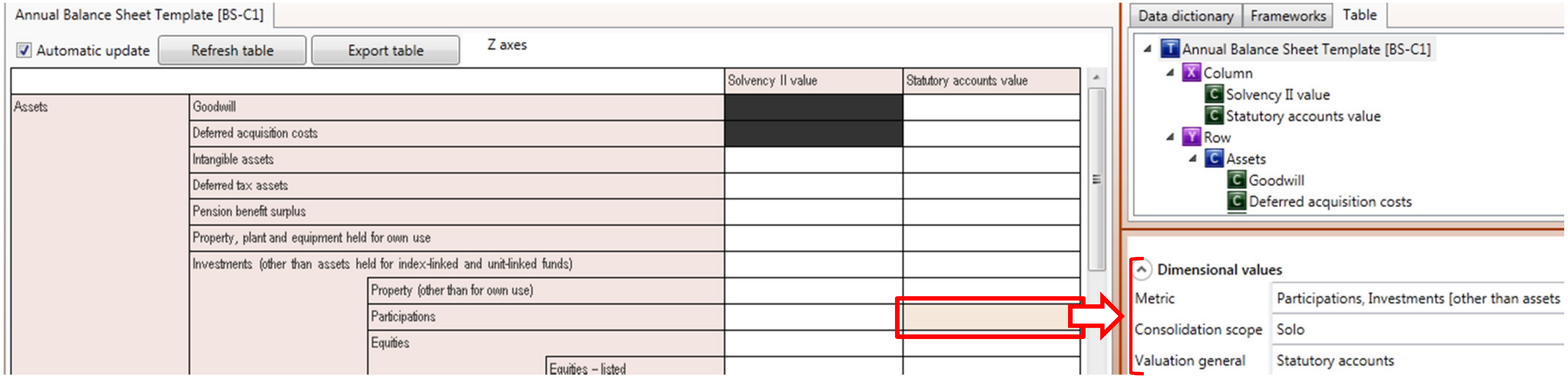
Label 15 ▼

Label 16 [F:f1]

Label 17 [F:f2]

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Label 1 [A:a0;B:b0] | | | | | |
| | | | Label 2 [A:a2] | | Label 3 [A:a3] | | Label 4: [A1:a4] | |
| | | | Label 5 [B:b2] | Label 6 [B:b3] | Label 7 [B: b3] | | | |
| | | | Column reference 1 | Column reference 2 | Column reference 3 | Column reference 4 | Column reference 5 | Column reference 6 |
| | | | Column code 1 | Column code 2 | Column code 3 | Column code 4 | Column code 5 | Column code 6 |
| Label 8 [M1, C:c1,instant="start"] | Row reference 1 | Row code 1 | | | | | | |
| Label 9 [M2;C:c2;D:d0] | Row reference 2 | Row code 2 | | | | | | |
| Label 10 [D:d1] | Row reference 3 | Row code 3 | ☒ | ☒ | ☒ | ☒ | ☒ | |
| Label 11 [C:"none";D:d2] | Row reference 4 | Row code 4 | ☒ | ☒ | ☒ | ☒ | ☒ | |
| Label 12 [M2;C:c3;D:d3] | Row reference 5 | Row code 5 | | | | | | |
| Label 13 [M1;C:c1] | Row reference 6 | Row code 6 | | | | | | |

# Rendering and data points in BS-C1
MD and HD approach

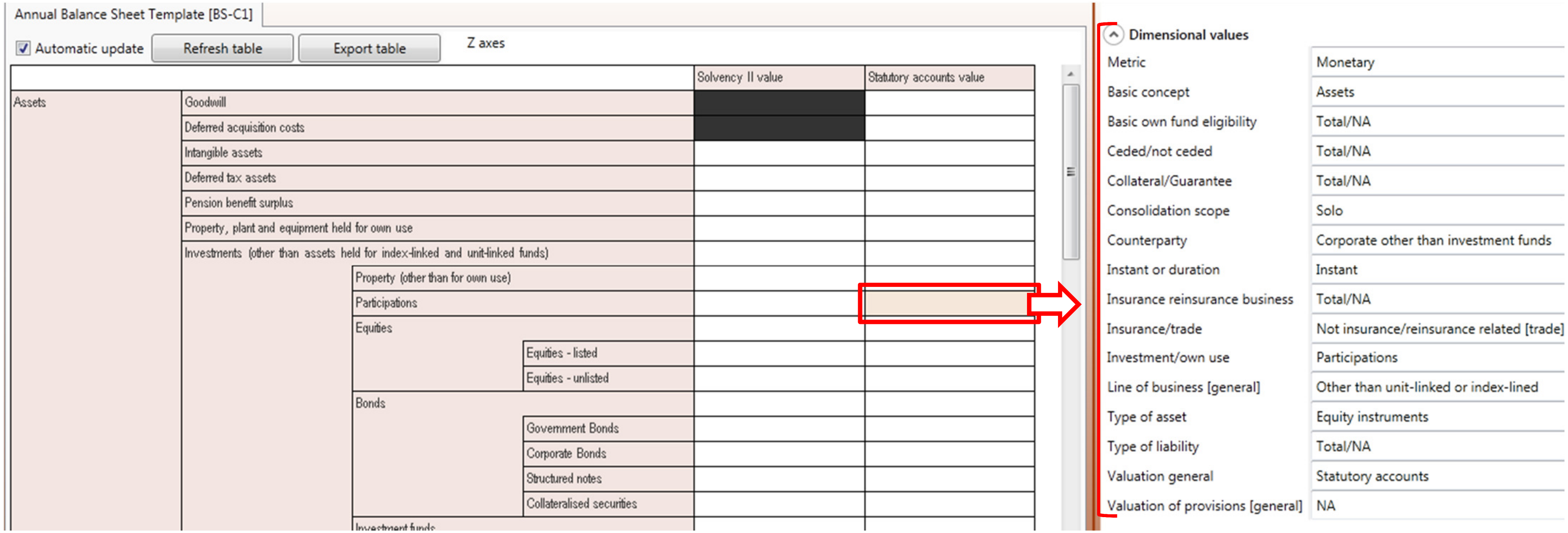

Annual Balance Sheet Template [BS-C1]
☑ Automatic update
Refresh table
Export table
Z axes
Data dictionary
Frameworks
Table

| | | | | Solvency II value | Statutory accounts value |
|---|---|---|---|---|---|
| Assets | Goodwill | | | ■ | |
| | Deferred acquisition costs | | | ■ | |
| | Intangible assets | | | | |
| | Deferred tax assets | | | | |
| | Pension benefit surplus | | | | |
| | Property, plant and equipment held for own use | | | | |
| | Investments (other than assets held for index-linked and unit-linked funds) | | | | |
| | | Property (other than for own use) | | | |
| | | Participations | | | |
| | | Equities | | | |
| | | | Equities – listed | | |

- Annual Balance Sheet Template [BS-C1]
  - Column
    - Solvency II value
    - Statutory accounts value
  - Row
    - Assets
      - Goodwill
      - Deferred acquisition costs

**Dimensional values**

| | |
|---|---|
| Metric | Participations, Investments [other than assets |
| Consolidation scope | Solo |
| Valuation general | Statutory accounts |

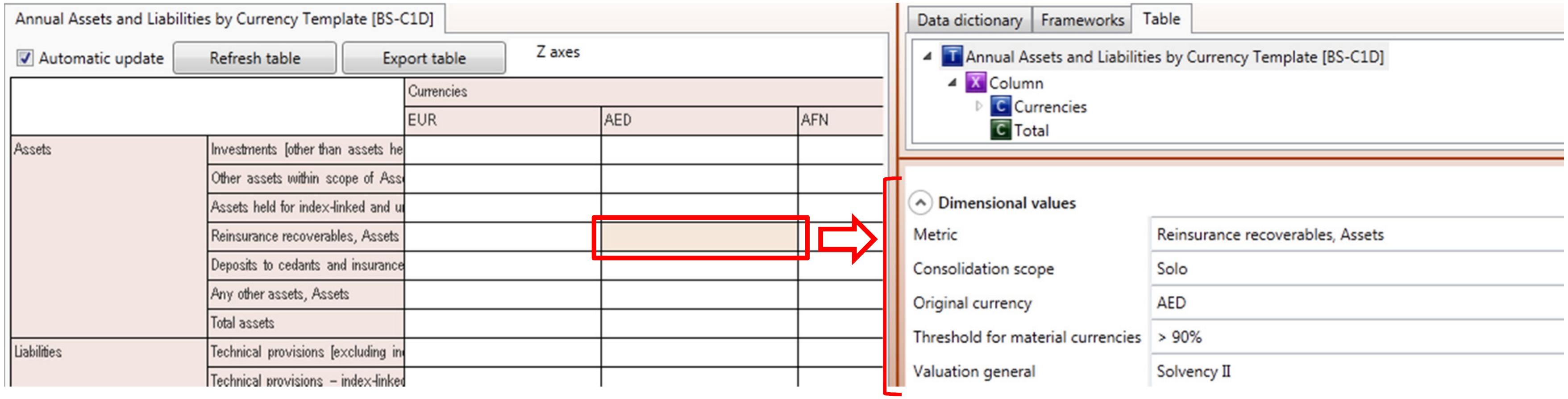

Annual Balance Sheet Template [BS-C1]
☑ Automatic update
Refresh table
Export table
Z axes

| | | | | Solvency II value | Statutory accounts value |
|---|---|---|---|---|---|
| Assets | Goodwill | | | ■ | |
| | Deferred acquisition costs | | | ■ | |
| | Intangible assets | | | | |
| | Deferred tax assets | | | | |
| | Pension benefit surplus | | | | |
| | Property, plant and equipment held for own use | | | | |
| | Investments (other than assets held for index-linked and unit-linked funds) | | | | |
| | | Property (other than for own use) | | | |
| | | Participations | | | |
| | | Equities | | | |
| | | | Equities - listed | | |
| | | | Equities - unlisted | | |
| | | Bonds | | | |
| | | | Government Bonds | | |
| | | | Corporate Bonds | | |
| | | | Structured notes | | |
| | | | Collateralised securities | | |
| | | Investment funds | | | |

**Dimensional values**

| | |
|---|---|
| Metric | Monetary |
| Basic concept | Assets |
| Basic own fund eligibility | Total/NA |
| Ceded/not ceded | Total/NA |
| Collateral/Guarantee | Total/NA |
| Consolidation scope | Solo |
| Counterparty | Corporate other than investment funds |
| Instant or duration | Instant |
| Insurance reinsurance business | Total/NA |
| Insurance/trade | Not insurance/reinsurance related [trade] |
| Investment/own use | Participations |
| Line of business [general] | Other than unit-linked or index-lined |
| Type of asset | Equity instruments |
| Type of liability | Total/NA |
| Valuation general | Statutory accounts |
| Valuation of provisions [general] | NA |

# Rendering and data points in BS-C1D MD and HD approach



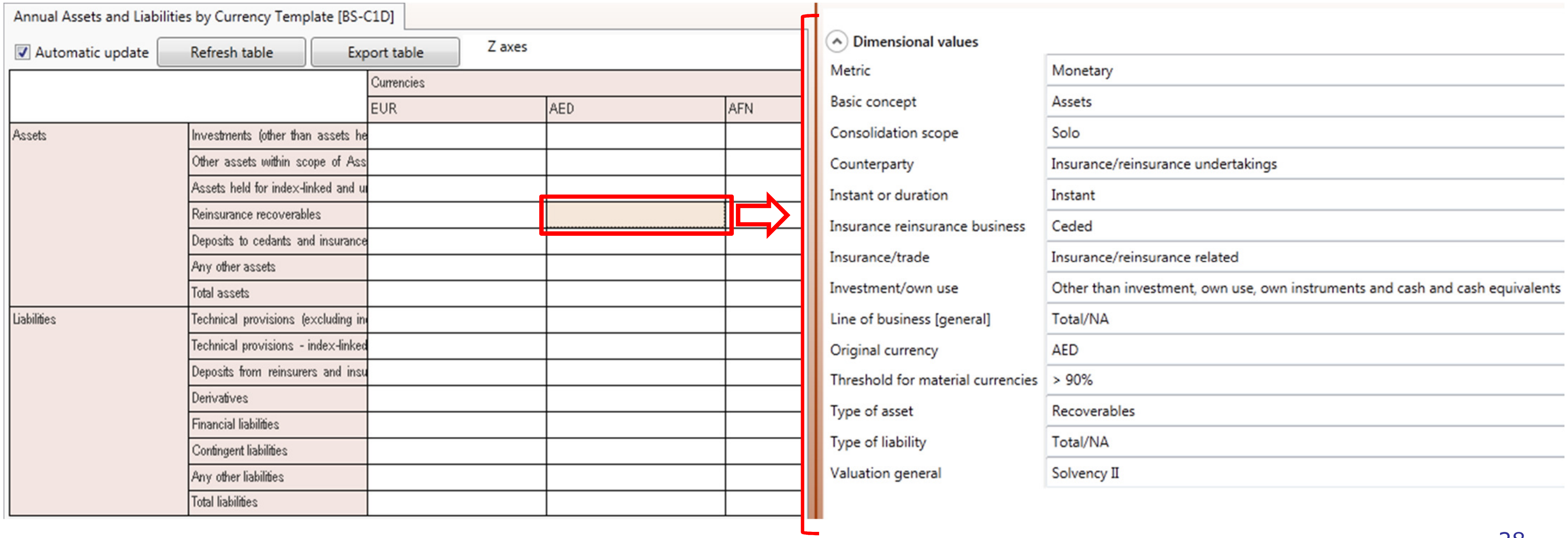
Annual Assets and Liabilities by Currency Template [BS-C1D]

☑ Automatic update | Refresh table | Export table | Z axes

| | | Currencies | | |
|---|---|---|---|---|
| | | EUR | AED | AFN |
| Assets | Investments (other than assets he | | | |
| | Other assets within scope of Ass | | | |
| | Assets held for index-linked and u | | | |
| | Reinsurance recoverables, Assets | | | |
| | Deposits to cedants and insurance | | | |
| | Any other assets, Assets | | | |
| | Total assets | | | |
| Liabilities | Technical provisions (excluding in | | | |
| | Technical provisions – index-linked | | | |

Dimensional values

| | |
|---|---|
| Metric | Reinsurance recoverables, Assets |
| Consolidation scope | Solo |
| Original currency | AED |
| Threshold for material currencies | > 90% |
| Valuation general | Solvency II |



Annual Assets and Liabilities by Currency Template [BS-C1D]

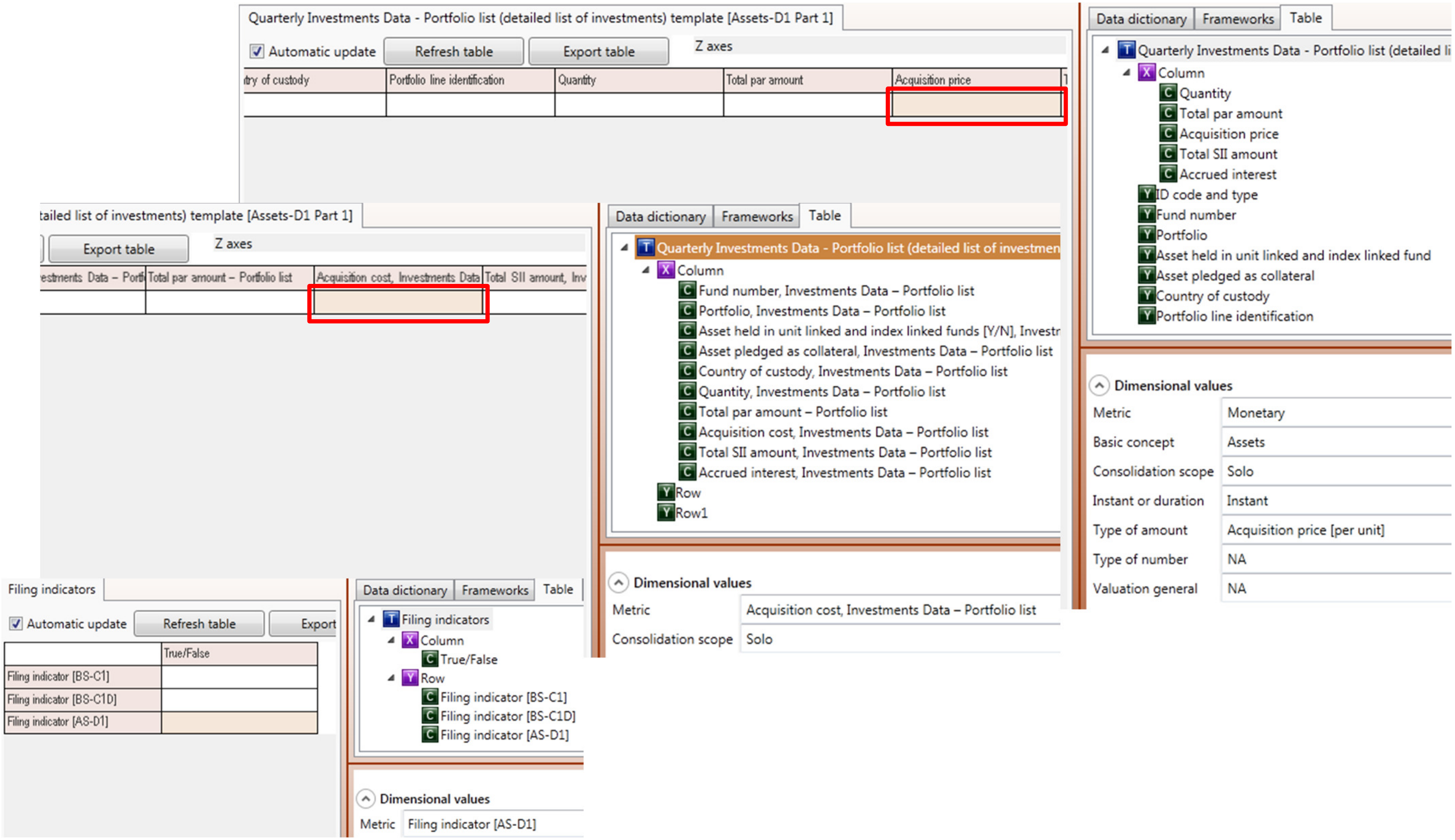
☑ Automatic update | Refresh table | Export table | Z axes

| | | Currencies | | |
|---|---|---|---|---|
| | | EUR | AED | AFN |
| Assets | Investments (other than assets he | | | |
| | Other assets within scope of Ass | | | |
| | Assets held for index-linked and u | | | |
| | Reinsurance recoverables | | | |
| | Deposits to cedants and insurance | | | |
| | Any other assets | | | |
| | Total assets | | | |
| Liabilities | Technical provisions (excluding in | | | |
| | Technical provisions - index-linked | | | |
| | Deposits from reinsurers and insu | | | |
| | Derivatives | | | |
| | Financial liabilities | | | |
| | Contingent liabilities | | | |
| | Any other liabilities | | | |
| | Total liabilities | | | |

Dimensional values

| | |
|---|---|
| Metric | Monetary |
| Basic concept | Assets |
| Consolidation scope | Solo |
| Counterparty | Insurance/reinsurance undertakings |
| Instant or duration | Instant |
| Insurance reinsurance business | Ceded |
| Insurance/trade | Insurance/reinsurance related |
| Investment/own use | Other than investment, own use, own instruments and cash and cash equivalents |
| Line of business [general] | Total/NA |
| Original currency | AED |
| Threshold for material currencies | > 90% |
| Type of asset | Recoverables |
| Type of liability | Total/NA |
| Valuation general | Solvency II |

# Rendering and data points in Assets-D1 + Filing Indicators MD and HD approach



Quarterly Investments Data - Portfolio list (detailed list of investments) template [Assets-D1 Part 1]

☑ Automatic update

| ntry of custody | Portfolio line identification | Quantity | Total par amount | Acquisition price |
|---|---|---|---|---|
| | | | | |

Data dictionary | Frameworks | Table

- T Quarterly Investments Data - Portfolio list (detailed li
  - X Column
    - C Quantity
    - C Total par amount
    - C Acquisition price
    - C Total SII amount
    - C Accrued interest
  - Y ID code and type
  - Y Fund number
  - Y Portfolio
  - Y Asset held in unit linked and index linked fund
  - Y Asset pledged as collateral
  - Y Country of custody
  - Y Portfolio line identification

Dimensional values

| | |
|---|---|
| Metric | Monetary |
| Basic concept | Assets |
| Consolidation scope | Solo |
| Instant or duration | Instant |
| Type of amount | Acquisition price [per unit] |
| Type of number | NA |
| Valuation general | NA |

tailed list of investments) template [Assets-D1 Part 1]

| estments Data – Portf | Total par amount – Portfolio list | Acquisition cost, Investments Data | Total SII amount, Inv |
|---|---|---|---|
| | | | |

Data dictionary | Frameworks | Table

- T Quarterly Investments Data - Portfolio list (detailed list of investmen
  - X Column
    - C Fund number, Investments Data – Portfolio list
    - C Portfolio, Investments Data – Portfolio list
    - C Asset held in unit linked and index linked funds [Y/N], Investm
    - C Asset pledged as collateral, Investments Data – Portfolio list
    - C Country of custody, Investments Data – Portfolio list
    - C Quantity, Investments Data – Portfolio list
    - C Total par amount – Portfolio list
    - C Acquisition cost, Investments Data – Portfolio list
    - C Total SII amount, Investments Data – Portfolio list
    - C Accrued interest, Investments Data – Portfolio list
  - Y Row
  - Y Row1

Dimensional values

| | |
|---|---|
| Metric | Acquisition cost, Investments Data – Portfolio list |
| Consolidation scope | Solo |

Filing indicators

☑ Automatic update

| | True/False |
|---|---|
| Filing indicator [BS-C1] | |
| Filing indicator [BS-C1D] | |
| Filing indicator [AS-D1] | |

Data dictionary | Frameworks | Table

- T Filing indicators
  - X Column
    - C True/False
  - Y Row
    - C Filing indicator [BS-C1]
    - C Filing indicator [BS-C1D]
    - C Filing indicator [AS-D1]

Dimensional values

| | |
|---|---|
| Metric | Filing indicator [AS-D1] |

# Let's play!

# 5. Important topics and issues

# BS_C1

- A dimension ("Valuation general") is used to convey the valuation principle: "Valuation general", with values "Solvency II" or "Statutory accounts" used
  - A single code is used (the QRT will be modified with new codes, unique in the whole SII reporting)
- Items have been added when details are optional
  - When details are provided, the total must also be provided
  - Example: Equities (BS_C1_A7B) added, details: Equities, Listed (BS_C1_A7) and Equities, Unlisted (BS_C1_A7A)

# BS_C1D (1)

- To avoid meaningless "Other" column
  - A new dimension has been added: "Threshold for material currencies" with two values: ">90%" and "≤10%" (needs to be refined since voluntary reporting may occur for <10% amounts)
  - The "Other" column corresponds to "Currency"="All", "Threshold for material currencies" = "≤10%"

# BS_C1D (2)

- Some MDT primary items are common with BS_C1:
    - BS_C1D_A3 does not exist, it is BS_C1_A4
    - BS_C1D_A5 does not exist, it is BS_C1_A12
    - BS_C1D_A11 does not exist, it is BS_C1_L16
    - BS_C1D_A13 does not exist, it is BS_C1_L23

# AS_D1

- Each line of the QRT table describes two objects
  - Asset
  - Line of asset
- To avoid duplicated information that would inflate instances and need to be checked, the table has been separated into two tables:
  1. Line of asset table, associated to two typed dimensions:
     - "Line of asset identification" (internal to the undertaking)
     - "Asset identification" (XML sequence of: "ID Code Type" and "ID Code")
  2. Asset table identified by the same "Asset identification" dimension

# Enumerations

- Enumerations will have the XML type QName, corresponding to member of Domains

  Advantages:

  - Values will correspond to Domain members that are XBRL concepts and may have labels, references…
  - The same domain may be shared by a dimension and a primary item (may be useful for Countries that may be a dimension or a primary item).

# Restriction on simple XML type

- E.g.: non negative monetary or limited length text string
- Implemented by assertions on top of simple XML types

  Advantages:
  - The instance is not rejected at a very low level (XML validity)
  - A meaningful message may be associated to the error report (e.g.: "Names must be limited to 180 characters" instead of "XML type error…")

# Assertions

- Each assertion will be associated to
  - An identification (code) giving
    - The template(s) of the context of the assertion
    - The type of the assertion
    - A rank number
  - A meaningful label
  - Optionally, a tolerance margin

  e.g.:

  ID: BS_C1-P400

  Label: « Aggregation to "Loan and mortgages (except loans on policy)" »

  Check that BS_C1_A14 = BS_C1_A14B + BS_C1_A14C, with some tolerance margin, for dimension "Valuation general" having value "Solvency II"
- The POC contain a limited set of assertions, showing various patterns

# Primary item aggregation assertion

- ID: BS_C1-P400

  Label: « Aggregation to "Loan and mortgages (except loans on policy)" »

- Check that BS_C1_A14 = BS_C1_A14B + BS_C1_A14C, with tolerance margin = 3000, for “Solvency II value” dimension value

  *Note: For “Statutory accounts” dimension values, A14B and A14C are not reported*

# Dimensional aggregation

- ID: BS_C1D-D100
- Label: « Dimensional aggregation for currencies »
- Check that, for all rows, the value in the Dimension value “Currency:Total” & “Threshold for material currencies:Total” column is the sum of other columns, with some tolerance margin

# Value checks

- ID: AS_D1-V100
- Label: « For equity, "Total SII amount" shall be equal to "Quantity" x "Unit SII price" + "Accrued interest" »
- Check that A26=A22*A23 +A30, if A22 exists, provided that A15 (CIC) !=~ /^..[7-9].$/, with some tolerance margin

# Type checks

- ID: AS_D1-T100
- Label: « Check the value of non negative monetary items »
- Check that (AS_D1_A22A, _A23, _A30) >= 0

# Value check (cross-template)

- ID: BS_C1-BS-C1D-V100
- Label: « “Other assets within scope of AS_D1” shall be equal to “Property, plant & equipment held for own use” + “Cash and cash equivalent” »
- Check that BS_C1D_A4["Currency"="Total"][Threshold for material currencies"="Total"]=BS_C1_A3 + BS_C1_A27 with some tolerance margin

# Filing indicators

- A "Filing indicator" is a boolean concept
- Each template is associated to a Filing indicator
- When set to true, a Filing indicator means that the data in the template have been filed
- The assertions in a template are evaluated only if its Filing indicator is true
- Cross-template assertions are evaluated only if all the filing indicators of the needed template are reported

  E.g.: BS_C1-BS_C1D-V100 is evaluated only if both BS_C1 and BS_C1D are reported (BS_C1D is optional)

# Q/A

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# Thank you!