XBRL South Africa Standard

XBRL SA Standard Taxonomy Architecture

Author: XBRL SA

Version: 1.01

Status: PUBLIC DRAFT

Confidentiality level: public

Index

Abbreviations

XBRL	Extensible Business Reporting Language
XBRL SA	XBRL South Africa
IFRS	International Financial Reporting Standards
ITA	Interoperable Taxonomy Architecture (IFRS Taxonomy Architecture)
DPM	Data Point Model
SAICA	South Africa Institute of Chartered Accountants
JSE	Johannesburg Stock Exchange
SARS	South African Revenue Service
CIPC	Companies and Intellectual Property Commission
FRSC	Financial Reporting Standards Council
NT	National Treasury
FSB	Financial Services Board
IRBA	Independent Regulatory Board for Auditors
SARB	South African Reserve Bank

List of appendices

Appendix A	Analysis of major XBRL taxonomies and globally adopted extensions and their architectures.
Appendix B	Comparison of major XBRL taxonomies.
Appendix C	Major taxonomies structure.
Appendix D	Roundtable discussion observations
Appendix E	Analysis of existing forms in South Africa

About this document

This document presents the outcome of analysis of international best practices, taxonomies and taxonomy architectures in order to determine and recommend the future, stable scheme of development and maintenance of XBRL taxonomies for South Africa. The document compiles findings from review of international resources and conclusions from discussions with major regulatory stakeholders conducted between 14 and 16 of May 2014.

The first chapter presents background information about XBRL implementation in the South Africa and explains the rationale behind development of a single overarching architecture of planned XBRL taxonomies.

The second chapter introduces foremost regulatory and supervisory bodies relevant to the Project and presents the major observations from the stakeholder group discussion.

The third chapter presents the summary of data scope, standards and architectures used by the regulators and discusses options available under transition into XBRL framework.

The fourth chapter discusses the major international XBRL taxonomy architectures relevant to the project and outlines feasibility and requirements for their adoption in the South Africa.

The fifth chapter present the recommended architectural requirements for the XBRL SA Standard. This includes logical and physical modularisation, naming conventions, application of technical constructs, use of rendering, versioning and other XBRL functionalities and other relevant architectural aspects.

The sixth chapter discusses advantages and risks of the recommended architecture as well as potential future changes to the requirements.

The document is accompanied by set of Appendices outlining details of various topics.

Chapter I: Background

History

The XBRL SA jurisdiction was founded on the 7th of November 2005, facilitated by the South African Institute of Chartered Accountants (SAICA), in order to promote the use of XBRL standard in South Africa, organize the creation of XBRL taxonomies, conduct relevant education activities and liaise with regulatory and market stakeholders.

The XBRL SA has consequently initiated and governed development of first XBRL taxonomies, including the Johannesburg Stock Exchange (JSE) Listings Requirements Taxonomy, the Company Secretary Statement Taxonomy, the Directors Report Taxonomy, the Auditor's Report Taxonomy and the IFRS General Purpose Taxonomy.

The XBRL SA taxonomies were implemented as part of the Johannesburg Stock Exchange Pilot Project and allowed to collect market and regulatory feedback for review of the general approach of introduction of XBRL in South Africa. Certain aspects of these taxonomies pioneered inclusion of new information domains e.g. the sustainability data according to King III framework.

XBRL SA Standard Project

Based on feedback received, the XBRL SA jurisdiction issued, on the 5th of February 2014, a request for proposals to develop the overarching XBRL SA Standard, understood as set of architectural rules and principles governing adoption and development of XBRL taxonomies in South Africa. The XBRL SA jurisdiction selected advisors to conduct the relevant analysis and recommend future architecture, together with governance and maintenance procedures and requirements for XBRL software platforms, applicable for centralised processing of XBRL data.

The project consists of several phases:

1. Preliminary study – analysis of existing, international XBRL taxonomies and taxonomy architectures.
2. XBRL SA Standard development – aiming to deliver comprehensive document outlining the relevant rules and principles.
3. XBRL SA Governance Structure and Supporting Processes development – aiming to create an efficient governance, development and maintenance structure for management of the XBRL SA Standard and respective XBRL taxonomies.
4. Taxonomy Development Solution platform recommendation – aiming to provide a set of requirements and recommendation on architecture of the centralised XBRL data processing platform.
5. XBRL SA Taxonomy Guideline development – aiming to deliver guidance documentation assisting future users in application of the framework

The project is conducted through analysis of international practices, interview with major regulatory and market stakeholders through set of dedicated workshops and preparation of respective documents. Quality of deliverables is governed by the Project Steering Committee of the XBRL SA and SAICA.

Chapter II: Stakeholders overview

Stakeholders identification

Business information reporting, broadly defined across a number of industries and sectors, is governed by a group of relevant regulatory and supervisory bodies defining data requirements, submission and evaluation procedures, analytical and supervisory requirements as well as other derived aspects. During the project the following group of organisations was identified as essential to apply consistent electronic business reporting principles and rules, thus allowing for realisation of expected benefits of information harmonisation, standardisation, digitalisation and sharing.

Table 1: Stakeholders list

Organisation	Rationale
Johannesburg Stock Exchange	Supervises submission and dissemination of financial reporting, corporate actions, sustainability, management reports and other types of data from listed companies.
South African Revenue Service	Supervises submission and analysis of tax and financial reporting data from tax payers.
Companies and Intellectual Property Commission	Collects financial reporting information from companies and businesses for registration and compliance verification purposes.
Financial Reporting Standards Council	Sets financial reporting standards for South African companies and businesses.
National Treasury	Supervises submission and analysis of information from municipalities and state-owned organisations for national budget purposes.
Financial Services Board	Sets standards and supervises collection and analysis of information for South African non-banking financial services industry.
South African Reserve Bank	Sets standards and supervises collection and analysis of information for South African banking financial services industry.
Independent Regulatory Board for Auditors	Sets standards for auditing and assurance of financial and business reports for relevant entities.

The regulators identified in Table 1: Stakeholders list constitute major regulatory and supervisory organisations setting business reporting scope standards, formats and relevant submission and evaluation or analysis processes. In most cases supervision of submission and broadly-defined management of data from regulated entities is a fundamental role for the organisations listed.

Additional stakeholders which shall be further taken into account may include: Statistics South Africa, the Public Investment Corporation, the Government Employees Pension Fund, The Financial Intelligence Centre, software vendors associations and professional intermediary associations.

JSE

The JSE is among the top 20 largest stock exchanges in the world in terms of market capitalisation and offers secure and efficient primary and secondary capital markets across a diverse range of instruments. It is the vision of the JSE to become a fully integrated African exchange to serve the investment and capital raising needs of the continent through complete services – from listing, trading, clearing and settlement to regulatory service.

The World Economic Forum recently ranked South Africa first among 144 countries in regulation of securities exchanges for five consecutive years. Within this framework, the JSE has led the drive to enhance its own regulatory environment acting as the frontline regulator in the South African capital market by setting listings requirements and enforcing trading rules. In order to fulfil its regulatory function and ensure it offers a credible and transparent trading environment, the JSE collects a wide range of information from the issuers of securities to be disseminated to the market. This includes the following:

- Financial results, including annual financial statements according to IFRS standards as well as abridged, provisional, preliminary and interim results.
- Cautionary announcements
- Trading statements (other than AFS)
- Transactions (other than Related Party Transactions)
- Related Party Transactions
- Particulars of listing for new and existing issuers (compliance with the requirements of Sections 7 and 11 of the JSE Listings Requirements)
- Corporate Governance reports

Conducive to providing a transparent trading environment, the JSE evaluates the information submitted according to fixed schedules and criteria and disseminates relevant information to the market. The JSE also executes compliance evaluation, investigation and endorsement functions.

In 2010 the JSE launched a Voluntary Filing Programme (VFP) based on the JSE XBRL Taxonomy. The programme built on the 2009 proof-of-concept project. The programme encouraged JSE listed companies to report their annual, interim, second interim, provisional, abridged and preliminary financial reports based on IFRS, the specific requirements of the South African Companies Act and the JSE Listing Requirements.

The VFP showed companies had little interest in the voluntary filing of electronic reports and highlighted the need for a national mandate to encourage submissions. The internal findings from implementing the XBRL reporting solution within the JSE also underlined the need to integrate the filing system with the existing IT infrastructure of the stock exchange.

The XBRL Taxonomy created and used for the VFP does not represent up-to-date legal requirements stemming from relevant acts and standards including Companies Act, IFRS or XBRL. Nevertheless it constitutes an important resource and analytical input for future XBRL SA Taxonomies.

SARS

The South African Revenue Service main responsibilities include, among other, *collection and administration of all national taxes, duties and levies*. Realisation of this and other SARS objectives is supported by collection and extensive evaluation of tax and financial information, which is largely conducted through an electronic eFiling system.

Note: collection of information from individuals is out of scope of considerations of this analysis.

The eFiling system operates on a set of approximately 102 tax forms for businesses, which cover a broad set of events, declarations, exemptions, licences, requests, confirmations and updates relevant for tax supervision. The nature of information collected by SARS uses both numeric and textual data as well as other data types. The eFiling system operates technologically on proprietary XML language and employs extensive supportive functionality to assist taxpayers in provision of requested data.

CIPC

The Companies and Intellectual Property Commission mission is to *provide easy, accessible and value-adding registration services for business entities, intellectual property rights holders and regulated practitioners and maintain and disclose secure, accurate, credible and relevant information regarding business entities, business rescue practitioners, corporate conduct and reputation, intellectual property rights and indigenous cultural expression.* Therefore the CIPC is directly engaged in the process of collection, evaluation, investigation and dissemination of business reporting information.

The CIPC collects extensive data set comprising among other of:

- Notice of Incorporation
- Memorandum of Incorporation (MOI)
- Applications and notices for various events
- Annual returns
- Financial statements
- Business Rescue Plans

The CIPC investigates compliance with Companies Act and applicable laws and standards and distributes information to other regulatory agencies.

The CIPC collects vast amount of data in electronic manner submitted via e-lodgement system that operates also the XML language to allow third-parties to connect and submit forms.

The CIPC runs several programs with local banks to automate registration of companies simultaneously with opening the bank account.

The role of CIPC in consulting and drafting provisions for legislation, including especially the Companies Act, may become fundamental for further adoption of the XBRL standard.

FRSC

The Financial Reporting Standards Council is tasked with a set of responsibilities including adaptation of IFRS and IFRS for the Small and Medium-sized Entities as issued by the International Accounting Standards Board. The council advises the Minister of Trade and Industry on financial standards matters and consults on regulations establishing the financial reporting standards.

The primary role of introduction and adaptation of IFRS places the FRSC at the heart of the information flows between the broadly-defined market entities and the regulatory environment. The IFRS standards are obligatory in the South Africa for state owned entities, profit companies and non-profit companies. The standards, to a varying degree, are in use by regulators like the JSE, CIPC, FSB, SARB, SARS and other.

The FRSC at present does not endorse or require any electronic format of the financial statement under IFRS. The FRSC may consider the role of electronic disclosure standards especially in the context of the official IFRS XBRL Taxonomy, that is issued by the IASB together with the IFRS standards and is considered to be major component of the XBRL SA Standard.

The broader role of the FRSC, providing liaison with the Department of Trade and Industry, shall be also considered key for the XBRL adoption, in the context of requirements stemming from the Companies Act, a major legislation issued by the DTI.

National Treasury

The National Treasury is responsible for managing South Africa's national government finances and supervises among other the state-owned entities and municipalities by collecting, analysing and consolidating of business information for the national budget preparation purposes.

The National Treasury leads and important role in enactment and amendments of legal policies relating to taxation, the public sector accounting and to other vital industries for the SA economy.

The National Treasury operates among other things according to two important legal acts: the Public Finance Management Act and the Municipal Finance Management Act. These acts set standards of accounting practices and rules for public-sector entities and state-owned entities.

The Treasury utilises a set of technologies and formats to obtain relevant information from supervised entities. The Treasury cooperates with SARS, the Public Investment Corporation, the Government Employees Pension Fund, the Financial Intelligence Centre as well as the Financial Services Board in order to fulfil its constitutional obligations. Due to is engagement and liaison with a number of other business financial reporting supply chain stakeholders the Treasury may potentially become the driving-force for nation-wide introduction of a single electronic business reporting standard.

FSB

The Financial Services Board supervises and exercises control over financial services industry including long- and short-term insurance, pension funds, collective investment schemes, financial services providers, exchanges and financial markets.

The FSB operates the Securities Services Act, Collective Investment Schemes Control Act, Credit Rating Services Act, Financial Advisory and Intermediary Services Act, Short-term Insurance Act, Long-term Insurance Act, Insurance Laws Amendment Act, Insurance Binder Regulations, Solvency Assessment and Management and other relevant legislation.

The FSB collect business and supervisory financial and non-financial information from regulated entities for assessment, compliance verification, investigation, analysis, statistical and dissemination purposes.

Due to its broad footprint in the regulation of variety of business entities and related roles in the business reporting supply chain, the FSB constitutes an essential stakeholder for adoption of the electronic business reporting language.

While the FSB utilises proprietary systems for data collection, the institution states to be ready to adopt international XBRL standard.

SARB

The South African Reserve Bank is, among other, constitutionally tasked with *assisting the South African government, as well as other members of the economic community of southern Africa, with data relevant to the formulation and implementation of macroeconomic policy and informing the South African community and all stakeholders abroad about monetary policy and the South African economic situation*.

The SARB oversees the essential financial services industry and collects extensive supervisory and statistical information comprising, among other, of:

- Financial statements
- Capital adequacy and other information according to Basel Accord
- Liquidity
- Recovery resolution plans (RRP)
- Internal Capital Adequacy Assessment Process (ICAAP)
- Supervisory Review and Evaluation Process (SREP)
- Interest rates and monetary statistics

The SARB operates three tiers of legislation:

1. Tier 1: The Banks Act, 1990 (Act No. 94 of 1990), the Co-operative Banks Act, 2007 (Act No. 40 of 2007) and the Mutual Banks Act, 1993 (Act No. 124 of 1993);
2. Tier 2: The Regulations relating to Banks, Regulations relating to Co-operative Banks and Regulations relating to Mutual Banks; and
3. Tier 3: Banks Act, Co-operative Banks Act and Mutual Banks Act directives, circulars and guidance notes.

IRBA

The Independent Regulatory Board for Auditors role is to develop and maintain auditing and ethical, internationally-comparable standards for South Africa. IRBA therefore plays an important role overseeing and developing rules for independent review of business information quality, soundness, correctness, accuracy and compliance.

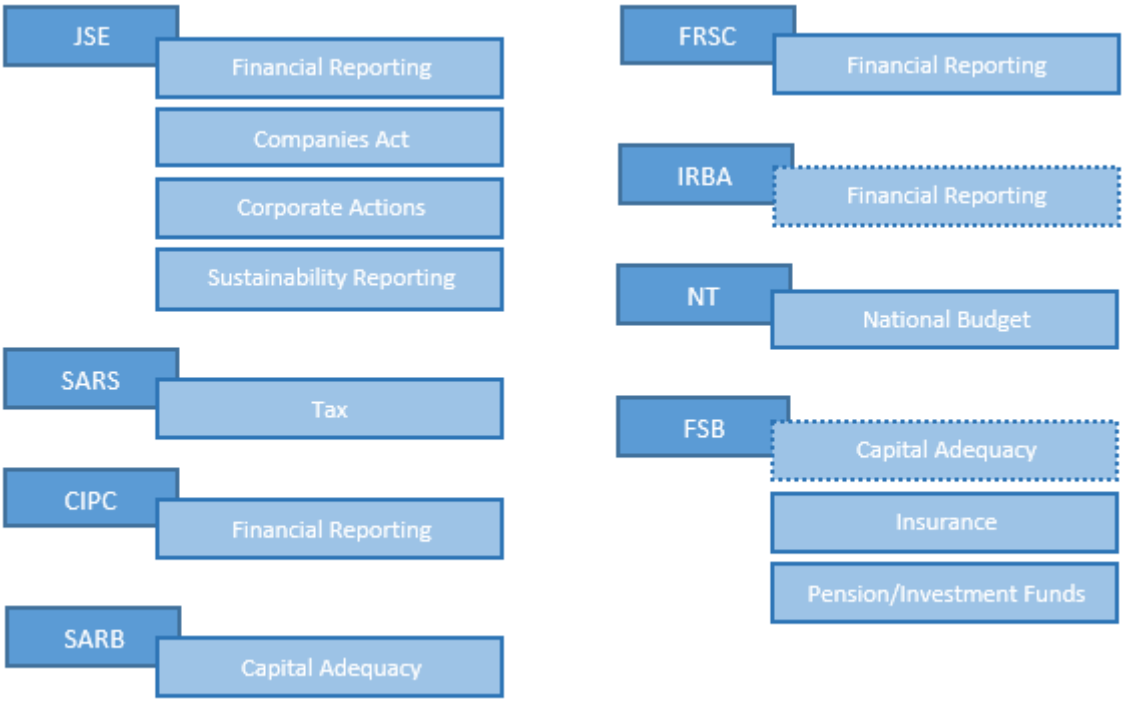
The IRBA contributes to development of business and financial reporting standards in South Africa and provides the market participants assessment of adequacy of reporting standards to the market practices. The IRBA works closely with international organisations including the International Accounting Standards Board and the International Federation of Accountants.

Chapter III: Summary of data scope, standards and architectures applicable in South Africa

Business architecture: data scope

During the process of analysis of reporting requirements that are part of each of the regulatory bodies in South Africa a number of data components, that can be described using XBRL standard, were identified (as shown on Figure 1: Summary of data scope).

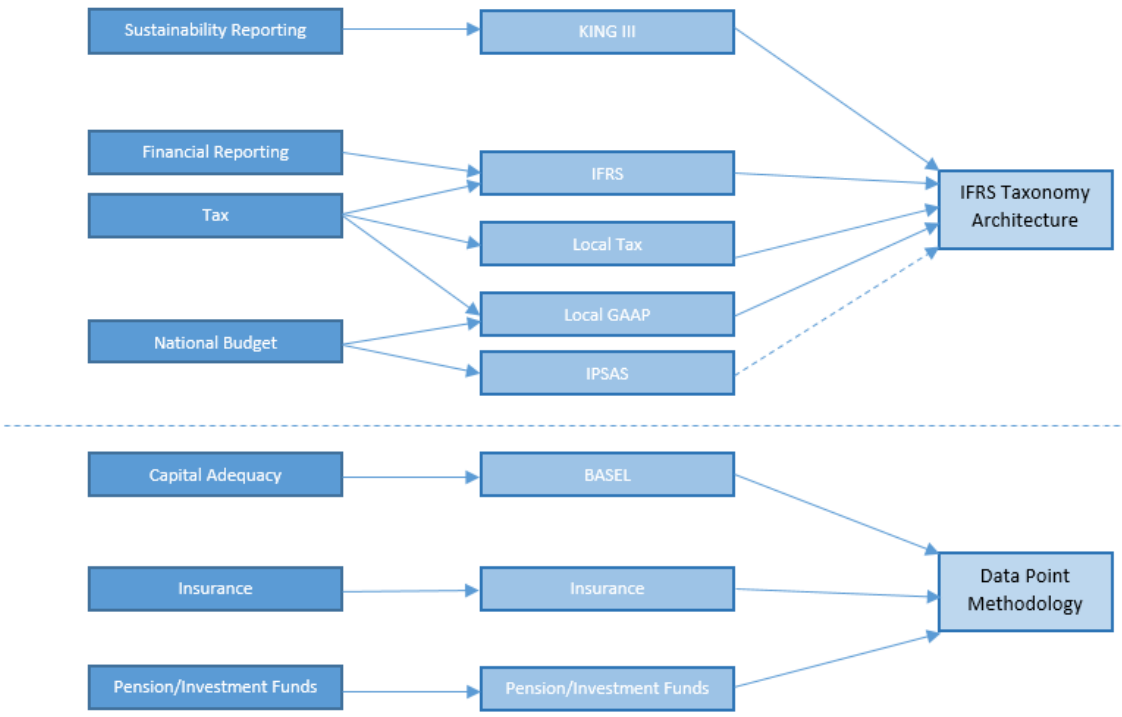
Figure 1: Summary of data scope that can be described using XBRL standard



Above data components correspond to particular regulations and reporting standards which can already be reflected by existing taxonomies that are recognized globally by supervisory institutions throughout the world. Identification of such taxonomies and their architectures may provide the South African regulators a substantial help with developing a national XBRL SA standard.

Figure 2: Summary of standards and architectures presents summary of data components with corresponding reporting standards and applicable XBRL taxonomy architectures.

Figure 2: Summary of standards and architectures



Chapter IV: Overview of major international XBRL taxonomy architectures

Use of international standards allows national regulators to introduce high quality control processes while ensuring compatibility with local and global markets. This course is supported in the XBRL world by development of international taxonomies based on the respective reporting standards and using identical or similar sets of design principles and rules, called taxonomy architectures.

Adoption of the standard taxonomy architectures allows the regulators to:

- Limit the risk of development of new principles and rules not tested in the market
- Increase market and inter-agency transparency
- Rely on internationally developed, implemented and maintained solutions

- Limit resistance of institutions, software vendors and preparers for implementation of new standards.

Public institutions are often criticised for introduction of custom, proprietary reporting solutions. Consequently transparency of reporting procedures together with intelligible reporting systems become key requirements for national supervisors and regulators. International XBRL taxonomies, developed by independent authorities utilise open standard and common international taxonomy architectures to provide a foundation for transparent and efficient reporting systems.

There is a number of approaches followed throughout the world that are globally recognized by various institutions and regulators. According to the analysis of gathered responses during roundtable meetings and interviews with relevant regulatory and supervisory bodies in South Africa, there are three approaches that are recommended as a base for the XBRL SA Standard Taxonomy Architecture:

- **IFRS taxonomy architecture** which is characterised by a high number of reportable *primary items* with lower number of *dimensions* disaggregating them. Primarily used for capital markets and projects describing aggregated or open-format information.
- **DPM architecture** that consists of low number of reportable *primary items* with higher number of *dimensions* disaggregating them. Primarily used for Basel III and Supervisory reporting where drill-down and breakdown of information is required.
- **Corporate Actions architecture** that consists of a large number of *dimensions* connected to an extensive list of *primary items.* Dimensions in the CA taxonomy architecture classify event types, market types, issue types security holder actions and status. The taxonomy architecture is extensible to cater for specific national requirements.

Detailed information about architectures of taxonomies is provided in Appendix A: Analysis of major XBRL taxonomies and globally adopted extensions and their architectures. Appendix B provides comparison of major XBRL taxonomies architectures, while Appendix C depicts major taxonomies folders structures.

Other taxonomy architectures

The other taxonomy architectures reviewed for the purpose of this research included the Standard Business Reporting (SBR) taxonomy architecture of Australia and the Netherlands as well as the XBRL Global Ledger (GL) taxonomy architecture.

The SBR AU taxonomy architecture consists of a set of requests lodged by businesses to a variety of participating government agencies. The taxonomy follows a custom set of design principles for instance:

- The main taxonomy is divided into *Definition Taxonomy* and *Reporting Obligations.*
- The *Definition Taxonomy* classifies information into main categories for instance business accounting and financials, credit and insurance, economic management, education and training, government financial assistance, labour relations, parties and revenue collection.
- The *Reporting Obligations* taxonomy defines reports exchanged by business and government entities.
- The architecture uses a set of Australian standards including the Australian Standard on Interchange of client information - AS4590 and also duplicates the concepts commonly found in the international taxonomies (for instance the IFRS XBRL Taxonomy).

- The architecture requires significant effort for update including coordination of definition layer and update to reporting layers due to sophisticated folder and physical and logical modularisation.
- The architecture is designed to work specifically with an extensive messaging schema infrastructure implemented through web services to enable automated communication of lodgements.

The SBR NL taxonomy architecture applies similar level of sophistication of modularisation at both physical and logical levels thus resulting in significant maintenance efforts.

The XBLR GL taxonomy architecture specifies reporting requirements at the level of accounting journals which may roll-up to aggregated reporting positions. The taxonomy can therefore express chart of accounts and similar structures for exchange of information supported by individual account values however does not seem efficient for exchange of aggregated form-centric information. The modularisation into palettes covering cases for reportable entry detail combinations is designed to respond to the need of representation of variety of events related to general ledger information.

Chapter V: Recommended architectural requirements for the XBRL SA Standard

Architecture vision

The proposed XBRL SA Standard Taxonomy Architecture must take into account the following principles

- flexibility – understood as ability to respond, to the largest extent possible to diversified existing and future requirements stemming from business standards, processes, economic reality, regulatory engagement, legal changes and other factors,
- transparency – understood as ability to precisely, unambiguously reflect legal requirements and allow companies, vendors and regulators to apply the SA XBRL Taxonomy in a transparent and unbiased manner,
- reliability – understood as integrity and stability of development and maintenance processes allowing future dependency of stakeholders on artefacts developed throughout the procedures,
- interoperability – understood as reusing, to the extent reasonable, international practices, principles and rules and relying on external, international taxonomies,
- cost-efficient – understood as limiting development, implementation, use and maintenance costs while maintaining quality and reliability of outcome products by means of use of standard-compliant OTS software products.

Based on the above principles the recommended architecture vision should embrace:

I. Use of the IFRS Taxonomy Architecture as the prevailing one for collection of data and syntactical expression of business requirements derived from underlying data models.
II. Direct extension of the IFRS XBRL Taxonomy where applicable.
III. Use of the DPM methodology for description of underlying data models and versioning of definitions harmonised across feasible domains of information.
IV. Possibility to use the DPM Taxonomy Architecture for the XBRL SA Taxonomy or its parts.

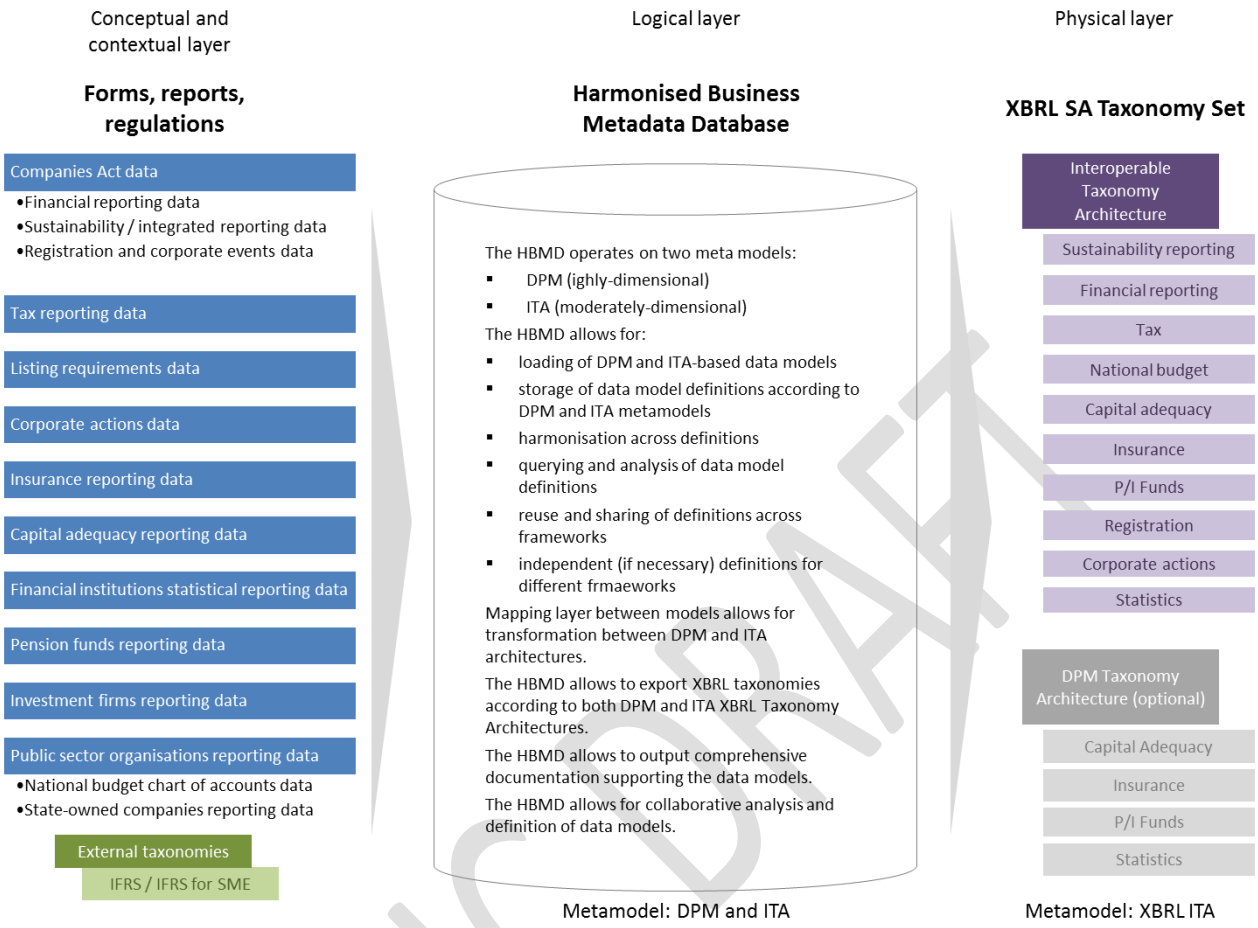
V. Use of a central database for management of harmonised metadata definitions which should allow to define data models according to both the highly-dimensional (DPM) approach and the moderately-dimensional (IFRS) approach.
VI. Folder structure representing the physical modularisation allowing the organisations to maintain the individual extended reporting scope while reusing common definitions. The structure of folders should allow for independent maintenance of multilingual and technical labels and references to legal acts.
VII. The logical modularisation into extended link roles allowing classification of elements into groups applicable for different reports.
VIII. Naming conventions for labels representing the legally-binding wording stemming from regulations.
IX. Naming convention for elements following an independent sequential coding approach in the highly-dimensional approach and IFRS/L3C convention for moderately-dimensional approach.
X. Minimisation of use of non-standard XBRL attributes and properties.
XI. Use of dimensions in a way to enable representation of reportable concepts in multidimensional structures allowing application of Table Linkbase for rendering of forms.
XII. Use of Inline XBRL for applicable domains.
XIII. Use of base sets of data types with possibly limited reliance on traditional XML enumerated lists except for advanced XBRL extended enumerated lists.
XIV. Use of taxonomy packages schema for preparation of reportable file packages for automated use by software vendors.
XV. Use of XBRL Formula linkbase for expression of mathematical and logical business rules.
XVI. Application of controlled extensions mechanism governed by a central taxonomy management unit.

Technical metadata architecture

Recommended metadata control architecture

The diagram presents the recommended control architecture for analysis, definition and development of harmonised metadata, including its core concept: the Harmonised Business Metadata Database.

Figure 3: Recommended architecture for harmonised metadata definition



General requirements

Req 1. During the implementation stage of the Harmonised Business Metadata Database, each of regulatory IT and security policies and authority-specific requirements will be taken into account.

Information requirements

Req 2. The XBRL SA Taxonomy should cover all reportable domains as specified in Chapter III: Summary of data scope, standards and architectures applicable in South Africa.

Req 3. The following high-level information domains are considered applicable for the XBRL SA Standard Architecture:

a. Companies Act data
   i. Financial reporting data
   ii. Sustainability / integrated reporting data
   iii. Registration and corporate events data
b. Tax reporting data
c. Listing requirements data
d. Corporate actions data
e. Insurance reporting data
f. Capital adequacy reporting data
g. Financial institutions statistical reporting data

h. Pension funds reporting data
i. Investment firms reporting data
j. Public sector organisations reporting data
    i. National budget chart of accounts data
    ii. State-owned companies reporting data

Req 4. Information requirements should be understood as scope of data (and relevant business rules applicable) collected through the applicable forms, reports and principle-based data requirements expressed in the applicable laws.

Data models and reuse of definitions

Req 5. The XBRL SA Taxonomy must use the latest IFRS XBRL Taxonomy as a base for extension.

Req 6. The use of latest IFRS XBRL Taxonomy must include at least the IFRS Taxonomy core schema and English label linkbase.

Req 7. Data scope for highly-dimensional approach must be logically, unambiguously, precisely and uniquely defined according to the Data Point Model methodology.

Req 8. Wherever possible, through the Data Point Model, definitions across applicable domains shall be reused.

Req 9. Data scope for moderately-dimensional approach must be logically and unambiguously, defined identifying primary items, dimensions, domain members according to the rules stipulated in the IFRS Taxonomy Guide 2014[1] or newer if available.

Req 10. Wherever possible the moderately-dimensional definitions shall be reused across applicable domains.

Req 11. Wherever possible definitions from common core shall be reused at reporting level.

Compliance with XBRL specifications

Req 12. The XBRL SA Taxonomy Set, regardless of whether representing highly- or moderately-dimensional data models, must comply with the following XBRL specifications:

k. XBRL 2.1, 2003-12-31 with Errata Corrections to 2013-02-20.
l. XBRL Dimensions 1.0, 2006-09-18 with errata corrections to 2012-01-25.
m. Generic Links, 2009-06-22.
n. Formula Specification 1.0, 2009 - 2011:
    i. Formula Specification, 2009-06-22.
    ii. Aspect Cover Filters, 2011-10-24.
    iii. Boolean Filters, 2009-06-22.
    iv. Concept Filters, 2009-06-22.
    v. Concept Relation Filters, 2011-10-24.
    vi. Consistency Assertions, 2009-06-22.
    vii. Custom Function Implementation, 2011-10-24.
    viii. Dimension Filters, 2009-06-22 with errata corrections to 2011-03-10 / Dimension Filters 1.1, 2011-07-20.
    ix. Entity Filters, 2009-06-22.
    x. Existence Assertions, 2009-06-22.
    xi. Function Definition, 2011-10-24, and further Registry, 2009 - 2011 and implementation of functions listed in the XBRL function registry (http://xbrl.org/functionregistry/functionregistry.xml).
    xii. General Filters, 2009-06-22.
    xiii. Generic Labels, 2011-10-24.

[1] http://www.ifrs.org/XBRL/Resources/Pages/IFRS-Taxonomy-Guide.aspx

xiv. Generic Messages, 2011-10-24.
xv. Generic References, 2009-06-22.
xvi. Implicit Filters, 2009-06-22.
xvii. Instances (multi-instance & chaining), CR 2012-10-03.
xviii. Match Filters, PER 2011-10-19 / Match Filters 1.0, 2013-10-30.
xix. Period Filters, 2009-06-22.
xx. Relative Filters, 2009-06-22.
xxi. Segment Scenario Filters, 2009-06-22.
xxii. Tuple Filters, 2009-06-22.
xxiii. Unit Filters, 2009-06-22.
xxiv. Validation, 2009-06-22.
xxv. Validation Messages, 2011-10-24.
xxvi. Value Assertions, 2009-06-22.
xxvii. Value Filters, 2009-06-22.
xxviii. Variables, PER 2011-10-19 / 2009-06-22 with errata corrections 2013-11-18.
xxix. Formula Tuples 1.0, CR, 2011-11-30.
xxx. Variables-Scope Relationships 1.0, CR, 2011-11-30.
xxxi. Formula Extension Modules - Instances, CR, 2012-10-03 / Instances (multi-instance and chaining), CR, 2012-10-03.

o. Generic Preferred Label 1.0, 2012-01-25.
p. Extensible Enumerations 1.0, CR, 2013-12-18.
q. Taxonomy Package 1.0, PWD, 2014-01-15.
r. XBRL Streaming Extensions Module 1.0, PWD, 2013-03-06.
s. Versioning Specification - Base, Concept Use, Concept Details, and Dimensions, 2013-02-27.
t. Units Registry - Structure 1.0, 2013-11-18 and units listed in XBRL units registry (http://xbrl.org/utr/utr.xml).
u. Data Type Registry - Specification, 2011-02-22 and data types listed in XBRL data type registry (http://xbrl.org/dtr/dtr.xml).
v. Link Role Registry - Specification, 2008-09-15 and roles listed in XBRL link role registry (http://www.xbrl.org/lrr/lrr.xml)

Physical modularisation (files and folders)

Req 13. Physical modularisation of files and folders should follow the architecture on Figure 4. The root folder for the XBRL SA Taxonomy Set shall be XBRL SA.

Req 14. The root folder shall define two subfolders “def” – for all common-core and common-industry definitions for various domains and “rep” for all domain-specific or organisation-specific definitions and for all presentation and form-view rendering components.

Req 15. The “def” folder should contain subfolders for specific data domains.

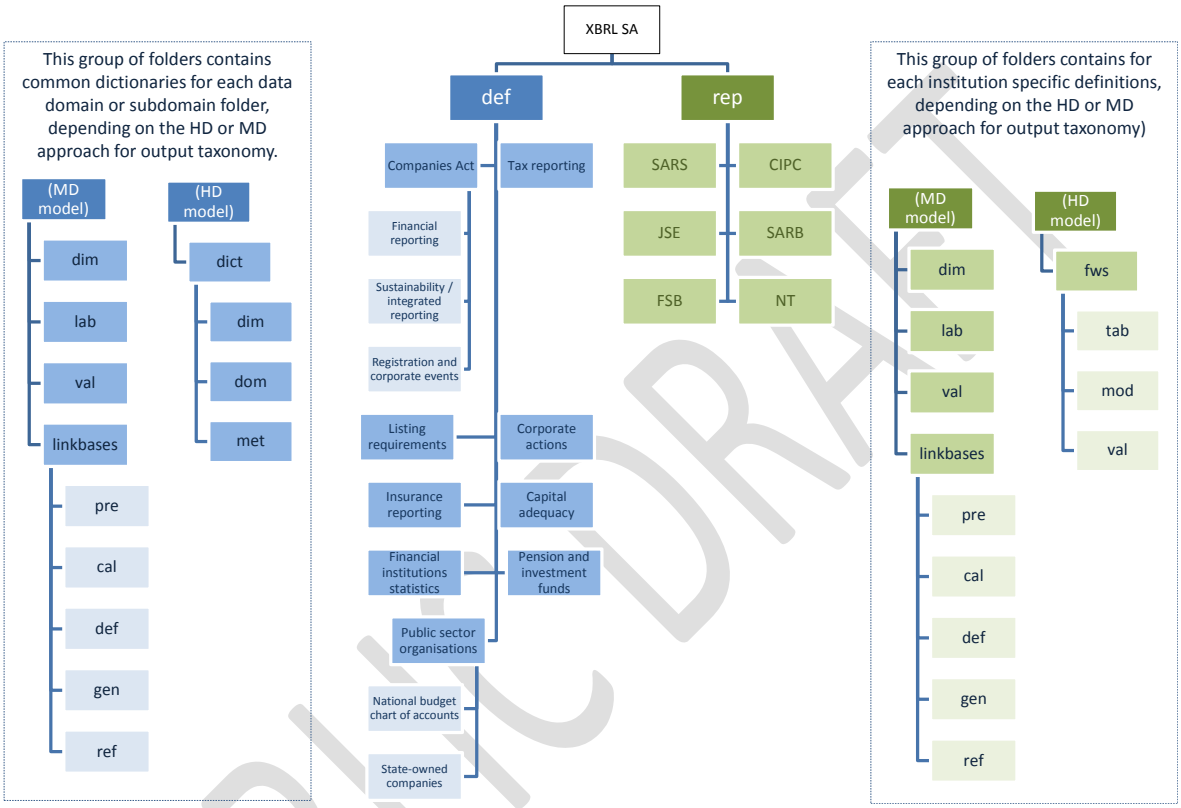
Req 16. Each specific data domain folder in the “def” folder may contain subfolders for further classification of data subdomains.

Req 17. Each specific data domain or subdomain folder shall, depending on the modelling approach applied (highly-dimensional or moderately-dimensional), apply further subfolders structure as per Figure 4.

Req 18. Each specific data domain or subdomain folder in the “def” folder shall contain core schema file with common domain or subdomain definitions of reportable elements.

Req 19. For each domain or subdomain the subfolders may contain common core definitions of dimension item declarations ("dim"), label links and resources ("lab"), XBRL formula validation rules ("val"), presentation linkbase structures ("pre"), calculation linkbase structures ("cal"), dimensional definition linkbase structures ("def"), generic linkbase structures ("gen") and reference linkbase links and resources ("ref").

Figure 4: High-level physical modularisation of the XBRL SA Taxonomy Set



Logical modularisation (ELRs)

Req 20. Logical modularisation of extended link roles for the moderately-dimensional approach should follow the IFRS Taxonomy Guide 2014.

Req 21. Logical modularisation of extended link roles for the highly-dimensional approach should follow the EBA Architecture for representation of DPM[2].

Technical syntax attributes

Req 22. Use of custom XML technical syntax attributes is disallowed.

Req 23. Use of non-standard XBRL attributes required by the EBA Architecture for representation of DPM including among other model and filing indicators schemas is allowed and recommended for the highly-dimensional approach.

2 http://www.eba.europa.eu/documents/10180/632822/EBA+Architecture+for+XBRL+representation+of+DPM.pdf

Multilingual and technical labels

Req 24. The implementation of moderately-dimensional approach must support definition of multilingual and technical labels of at least primary items, dimension items, domain members through standard XBRL label linkbase functionality.

Req 25. The implementation of moderately-dimensional approach must support definition of multilingual and technical generic labels.

Req 26. The implementation of highly-dimensional approach must support definition of multilingual and technical labels of at least data points, metrics, dimension items, domain members through standard XBRL label linkbase functionality or through the generic label linkbase functionality.

Legal references

Req 27. The implementation of moderately-dimensional approach must support definition of legal references to primary items, dimension items, hypercubes and domain members through the standard label linkbase functionality.

Req 28. The implementation of moderately-dimensional approach must support definition of legal references to primary items, dimension items, hypercubes and domain members through the standard label linkbase functionality.

Dimensions

Req 29. Identification of dimensions applicable for the moderately-dimensional approach should follow the rules described in the latest IFRS Taxonomy Guide.

Req 30. Identification of dimensions applicable for the highly-dimensional approach should follow the process described in the EBA documentation DPM Formal Model, DPM and Taxonomy Introduction and the Representation in XBRL of the Data Point Model[3]

Versioning

Req 31. Versioning of the entire XBRL SA Taxonomy Set should be provided through date in the format YYYY-MM-DD applicable at the root folder for the date of release of the entire taxonomy set.

Req 32. Versioning of the base IFRS XBRL Taxonomy is embedded in the IFRS XBRL Taxonomy files names and namespaces.

Req 33. Versioning of the moderately-dimensional “def” components of the XBRL SA Taxonomy Set should follow the IFRS versioning principles as described in the IFRS Taxonomy Guide 2014.

Req 34. Versioning of the highly-dimensional “def” components of the XBRL SA Taxonomy Set should follow the DPM versioning principles and especially the versioning capabilities of model.xsd schema as described in the EBA documentation.

Req 35. Versioning of the moderately-dimensional “rep” components of the XBRL SA Taxonomy Set should follow the IFRS versioning principles as described in the IFRS Taxonomy Guide 2014 and be included for each reports set release date for each regulator in the format YYYY-MM-DD.

Req 36. Versioning of the highly-dimensional “rep” components of the XBRL SA Taxonomy Set should be included for each reports set release date for each regulator in the format YYYY-MM-DD.

[3] https://www.eba.europa.eu/documents/10180/502670/General+Documentation.zip

Rendering

Req 37. Physical rendering information should be defined in the "rep" component of the XBRL SA Taxonomy Set.

Req 38. Rendering of tabular information defined according to the highly-dimensional approach must be implemented through the Table Linkbase specification.

Req 39. Rendering of tabular information defined according to the moderately-dimensional approach should be implemented through the Table Linkbase specification.

Req 40. Rendering of non-structured, principle based reporting frameworks may be implemented by the respective regulator through application of Inline XBRL specification.

Logical and mathematical rules expression

Req 41. Logical and mathematical business rules applicable for respective frameworks must be, wherever applicable, defined using the Formula linkbase and related specifications.

Req 42. Interval arithmetics should be applied for definition of business rules for highly-dimensional approach.

Use of model.xsd schema

Req 43. Model.xsd schema as defined by the EBA must be used for highly-dimensional approach.

Extensibility by filers

Req 44. Filers are not allowed to extend directly the definition component of the XBRL SA Taxonomy Set ("def").

Req 45. Regulators may decide to allow filers to extend the reporting component of the XBRL SA Taxonomy Set ("rep") for taxonomies designed according to the moderately-dimensional approach.

Req 46. Extension of the reporting component of the XBRL the XBRL SA Taxonomy Set ("rep") for taxonomies designed according to the moderately-dimensional approach must follow the IFRS Taxonomy Guide and the Global Filing Manual[4].

Req 47. Filers are not allowed to extend the reporting component of the XBRL SA Taxonomy Set ("rep") for taxonomies designed according to the highly-dimensional approach.

Req 48. Filers are not recommended to extend directly the IFRS XBRL Taxonomy unless the respective regulator allows it.

Extensibility by other regulators

Req 49. Regulators applying the moderately-dimensional approach may extend the "def" dictionaries of primary items, dimensions, domain members by adding regulatory-specific or industry-specific elements in the respective schemas in the "rep" component.

Req 50. Regulators extending the moderately-dimensional dictionaries should consult the governance process in order for commonly-shared extended elements to be incorporated into the "def" component if applicable.

Req 51. Regulators applying the highly-dimensional approach are not allowed to directly extend the highly-dimensional dictionaries defined in the "def" component. For extension of the highly-dimensional dictionaries regulators must consult the governance process and other regulators using the DPM dictionary and must implement their extensions as part of the common data-centric model.

[4] http://www.ifrs.org/XBRL/Resources/Pages/Global-filing-manual.aspx

Use of taxonomy packages schema

Req 52. The Taxonomy Packages XBRL specification should be applied for all releases of the XBRL SA Taxonomy and especially for each regulatory reports set release.

Use of XBRL GL Taxonomy

Req 53. The regulators may use the XBRL GL Taxonomy among other to detail the reporting requirements by provision of underlying chart of accounts.

Req 54. Regulators may choose the XBRL GL taxonomy and introduce it at both the "def" level and the "rep" level in order to allow reporting of sets of accounts.

Data types and restrictions including enumerations

Req 55. Standard XBRL data types as defined in the XBRL Data Types registry should be used for the entire XBRL SA Taxonomy Set.

Req 56. Use of custom data types should be limited and avoided.

Req 57. Use of XML enumerations should be avoided and limited.

Req 58. Use of XBRL Extensible Enumerations specification is recommended.

Chapter: VI: Discussion on advantages and risks of the recommended architecture

Several scenarios of the XBRL SA Architecture and metadata definition control were considered in the process of analysis of reporting scope applicable in South Africa according to the identified regulatory frameworks.

Key aspects impacting the decision about the recommended architecture included:

1. Flexibility - regulators in scope operate diversified reporting frameworks reflecting a variety of reportable data domains, based on diversified regulations and expressing numerous data structures including among other closed forms, open tables and principle-based, unstructured reports. The XBRL SA Architecture responds to this diversity allowing all regulators to be included under one governing architecture, yet permitting flexible approaches by different regulators. Similarly the architecture permits changes to its own design however these are advised with caution and only in the absence of other solutions.
2. Harmonisation opportunities – a number of data domains analysed indicate harmonisation opportunities at both dictionary level and reporting layer, depending on the legal and business-mater conditions. The XBRL SA Architecture allows, through the Harmonised Business Metadata Database, regulators to analyse, discuss and document equivalence and similarity between data domains and express similarities through the output XBRL Taxonomies.
3. Stability – the reporting requirements expressed in forms and other legal regulations undergo constant revision and changes process. The XBRL SA Architecture provides a stable environment foreseeing potential expansion and a number of development and evolution factors.
4. Extensibility – the XBRL SA Architecture allows to extend in terms of scope of reporting, by filers and by regulators as well as extend the technical constructs for both highly- and moderately-dimensional approaches.
5. Dependency on external factors – use of the IFRS XBRL Taxonomy as a base financial reporting taxonomy imposes certain rules, restrictions and principles for its extension:
    - Strict naming convention guidelines and modelling approaches to be followed
    - Possible extensibility of the base taxonomy for sector/entity specific concepts

- Annual release of the taxonomy with possible remapping required

Similarly application of the DPM model forces certain restrictions:

- Strict architectural designs to be followed (model.xsd schema)
- Maintained by several European authorities (EBA, EIOPA) with no designated leader
- Limited by the modelling approach as not designed directly for XBRL standard

In the absence of alternative solutions the XBRL SA Architecture was tailored to meet requirements of both of modelling approaches (moderately- and highly-dimensional).

6. Versioning – the architecture enables the possibility to version at different levels: the entire taxonomy set, different domain modules of the core, regulatory sets of reports, specific reports or even specific DPM or XBRL definitions. The versions can be controlled and compared and analysed through the HMDB and output to different versions of taxonomies.
7. Gradual implementation – regulators may choose to join the HMDB and XBRL SA Architecture and include their contents gradually which opens up an opportunity to shape the country migration strategy to XBRL in line with specific regulatory strategic plans and in line with gradually increasing awareness and solutions readiness for the market.