mSCOA

POSITION PAPER 1 – MAPPING

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Position Papers is the methodology adopted by the mSCOA Project Steering Committee to record research conducted, comments received from stakeholders on subject matter and forms the basis for formulating and concluding on a formal position by all National Treasury stakeholders.

Position Papers as such do not have any legal status but serve to formalise and conclude subject matter. Subject matter forming the basis of discussion will determine any further action required by National Treasury in concluding and providing a formal position on the specific technical area.

# BACKGROUND

1. The Local Government: Municipal Finance Management Act, 2003: Municipal Regulations on the Standard Chart of Account (MSCOA Regulation), issued by the Minister of Finance on 22 April 2014, regulates the implementation requirements for the standard classification framework (SCOA). This Regulation provides for the following:

* 5.(1) The standard chart of accounts of a municipality or municipal entity-must contain the segments in the Schedule as required by regulation 4(1); must accurately record all financial transactions and data in the applicable segment; and may not contain data which is ***mapped or extrapolated*** or which otherwise does not reflect transactions recorded or measured by the municipality or municipal entity.
* (2) The financial and business applications or systems used by a municipality or municipal entity must-provide for the hosting of the general ledger structured in accordance with the classification framework determined in terms of regulation 4(2); be capable of accommodating and operating the standard chart of accounts; provide a portal allowing for free access, for information purposes, to the general ledger of the municipality or municipal entity, by any person authorised by the Director-General or the Accounting officer of the municipality.
* (3) Each municipality and municipal entity must have, or have access to, computer hardware with sufficient capacity to run the software which complies with

# COMMON DEFINITION

1. The terminology used in the regulation “mapped or extrapolated” is not defined in the regulation.
2. Definition for “mapping”:

* The “Wikepedia” definition for mapping: In computing and data management, data mapping is the process of creating data element mappings between two distinct data models. Data mapping is used as a first step for a wide variety of data integration tasks including: Data transformation or data mediation between a data source and a destination. For example, a company that would like to transmit and receive purchases and invoices with other companies might use data mapping to create data maps from a company's data to standardized [ANSI ASC X12](http://en.wikipedia.org/wiki/ANSI_ASC_X12) messages for items such as purchase orders and invoices.
* What does Data Mapping mean? [Techopedia explains Data Mapping]: Data mapping is a process used in data warehousing by which different data models are linked to each other using a defined set of methods to characterize the data in a specific definition. This definition can be any atomic unit, such as a unit of metadata or any other semantic. This data linking follows a set of standards, which depends on the domain value of the data model used. Data mapping serves as the initial step in data integration. Data mapping can be applied in several ways using procedural codes, Extensible Style Sheet Language Transformation and other existing graphical interfaces. The technique involves evaluating data values in different data sources, as well as automatically and simultaneously discovering complex mappings between the sets. Data mapping is also used to consolidate multiple databases into a single database.

1. Definition for “extrapolation”:

* [www.vocabulary.com/dictionary/extrapolation](http://www.vocabulary.com/dictionary/extrapolation) - An extrapolation is kind of like an educated guess or a hypothesis. When you make an extrapolation, you take facts and observations about a present or known situation and use them to make a prediction about what might eventually happen.
* Wikepedia definition: In [mathematics](http://en.wikipedia.org/wiki/Mathematics), extrapolation is the process of estimating, beyond the original observation range, the value of a variable on the basis of its relationship with another variable. It is similar to [interpolation](http://en.wikipedia.org/wiki/Interpolation), which produces estimates between known observations, but extrapolation is subject to greater [uncertainty](http://en.wikipedia.org/wiki/Uncertainty) and a higher risk of producing meaningless results. Extrapolation may also mean extension of a [method](http://en.wiktionary.org/wiki/method), assuming similar methods will be applicable. Extrapolation may also apply to human [experience](http://en.wikipedia.org/wiki/Experience) to project, extend, or expand known experience into an area not known or previously experienced so as to arrive at a (usually conjectural) knowledge of the unknown (e.g. a driver extrapolates road conditions beyond his sight while driving). The extrapolation method can be applied in the [interior reconstruction](http://en.wikipedia.org/wiki/Interior_reconstruction) problem.

1. Definition for “guid”: [[Globally unique identifier - Wikipedia, the free encyclopedia](http://en.wikipedia.org/wiki/Globally_unique_identifier)]

* A Globally Unique Identifier (GUID, /ˈɡwɪd/or /ˈɡuːɪd/) is a unique reference number used as an identifier in computer software. The term GUID typically refers to various implementations of the universally unique identifier (UUID) standard.‎[Common uses](http://en.wikipedia.org/wiki/Globally_unique_identifier#Common_uses) - ‎[Binary encoding](http://en.wikipedia.org/wiki/Globally_unique_identifier#Binary_encoding) - ‎[Text encoding](http://en.wikipedia.org/wiki/Globally_unique_identifier#Text_encoding) - ‎[Algorithm](http://en.wikipedia.org/wiki/Globally_unique_identifier#Algorithm)
* A unique 128-bit number that is produced by the Windows OS or by some Windows applications to identify a particular component, application, file or user.
* A GUID (global unique identifier) is a term used by Microsoft for a number that its programming generates to create a unique identity for an entity such...

# PROBLEM STATEMENT

1. Historically some of the system vendors made use of “mapping techniques” to relate amongst other information requirements, the municipal vote structure to the reporting requirement for “GFS function”.
2. The mSCOA Regulation as referred to above has made this practice unacceptable.
3. National Treasury, supported by the mSCOA Regulation requires that transactional detail to be recorded by selecting a classification from each of the seven (six if municipal standard classification not used) regulated segments of the mSCOA Classification Structure.

# DISCUSSION

1. Summary of comments received from stakeholders relating to mapping:

* We need to define what ‘Mapping’ is and what not. May I suggest the following: "Where the MSCOA classifications for functions and items are not saved on the transaction database and where these are therefore ‘added’ to the information extracted from the general ledger when ‘mSCOA’ reporting is required." [Danie van Heerden – Quill Associates]
* Regarding what standards will be applied to judge whether a system was using a direct or indirect mapping protocol. You state that the consensus was that if the mSCOA keys were recorded at a transactional level the system would pass scrutiny. Unfortunately this would be a risky approach for you. That is the starting point, and only the starting point. If you do not record at transaction level you will fail the judging process. This does not in any way mean that you will pass just because you record at transaction level. It is just the point of departure. We agree with your assessment that this notion (i.e. merely recording at mSCOA level) is without substance as it is as easy to record the MSCOA keys at a transactional level, using a mapping technique, as it is to map the chart when compared to a total change of your system to work with the mSCOA keys only. [Danie de Lange – Phoenix Business Manager]

1. The mSCOA Classification Framework comprises seven regulated segments of which the use of six is compulsory. The standard chart of accounts must consist of at least the following segments, each of which incorporates a classification within the general ledger to record transaction information identified by codes within fields within the database:

* Funding Segment: This segment identifies the various sources of funding available to municipalities and municipal entities for financing expenditure relating to the operation of the municipality and provides for both capital and operational spending. The appropriate classification code of a transaction in this segment will be determined according to the source of funding against which a payment is allocated and the source of revenue against which income is received.
* Function Segment: This segment provides for the classification of the transaction according to the function or service delivery objective and provides for the standardisation of functions and sub-functions across local government with due regard to specific service delivery activities and responsibilities of each individual municipality or municipal entity.
* Municipal Standard Classification Segment: This segment provides for the organisational structure and functionality of an individual municipality, which is not prescribed, but must incorporate the structure and functionality as determined by that municipality.
* Project Segment: This segment provides for the classification of capital and operating projects as provided for in the integrated development plan, as provided for in the Municipal Structures Act, 1998 (Act No. 117 of 1998), and funded in the budget and records information on spending as against the budget as well as the utilisation of funds provided for the project. The appropriate classification code of a transaction in this segment will be determined on the basis of whether it relates to a specific project and if so, the type of project.
* Regional Indicator Segment: This segment identifies and assigns government expenditure to the lowest relevant geographical region as prescribed and the appropriate classification code will be determined according to the defined geographical area within which the intended beneficiaries of the service or capital investment are located who are is deriving the benefit from the transaction.
* Item Segment: This segment provides for the classification of item detail in the presentation of the financial position, performance and cash flow of the municipality or municipal entity. The appropriate classification code will be determined according to the nature of the transaction either as revenue, expenditure, asset, liability or net asset.
* Costing Segment: This segment provides for a classification structure for secondary cost elements and acts as a cost collector in determining inter alia total cost of a service or function, identification of productivity inefficiencies and tariff determination of municipal services. Classification codes are identified with reference to departmental charges; internal billing and activity based recoveries for purposes of recording specific activities and functions in terms of their unit costs and cost categories.

# CONCLUSION

1. A short key is not considered to be a mapping exercise. In our opinion, they short cut keys fall under system setup and consist of “two-set” pointing to each other. A short cut keys do not stand on its own and have no value if separated. In a mapping situation, both charts are able to stand on their own two feet and have value independently.
2. Short keys to be defined at the discretion of the system developer. It is not the intention of National Treasury to impose or prescribe any restrictions or proposed codes. However, National Treasury will be extremely vigilant when system developers use these short keys, in terms of how they are setup, how they are maintained going forward and how they compare to their old charts.
3. The SCOA Tables provide indicators for posting level accounts. These accounts contain a code number also linked to a guid.
4. If “posting levels” are not defined in the SCOA Tables the indicators provide guidance on “breakdown-levels” to be added by the municipality based on specific detail to be defined. These user added fields would not contain a posting level code number, but does provide for the creation of a code. In combination with the “municipality’s code” this will form a code unique to the municipality. This user added posting levels will this also not contain a “guid”.
5. **Recording of transactions (may include interface transactions) must be by selecting an account within each of the seven segments of SCOA (or six if the municipal standard classification are not applicable). Any record methodology adopted by the system developer other than the above would be considered “mapping or extrapolation”.**

# PROPOSED FURTHER ACTION

1. The Local Government: Municipal Finance Management Act, 2003: Municipal Regulations on the Standard Chart of Account (MSCOA Regulation), issued by the Minister of Finance on 22 April 2014, regulates the implementation requirements and provides for “minimum system requirements” in regulation 7: “(1) The Minister may, by notice in the Gazette, determine the minimum system requirements for municipalities and municipal entities to enable implementation of regulations 4 and 5. (2) Each municipality and municipal entity must implement the minimum system requirements by the date determined in the notice referred to in sub-regulation (1).
2. **The notice as intender by the SCOA Regulation is made prescriptive to avoid the practice of “mapping and extrapolation”.**

# DOCUMENT TRACKING AND ADOPTION

| **Date** | **Action** | **Approval** |
| --- | --- | --- |
|  | Draft circulated for comment: Subject Matter Expert  RidwanThokan |  |
|  | Draft circulated for comment: SCOA Team |  |
|  | Draft circulated for comment: SCOA Technical Work Group |  |
|  | PSC consent |  |
|  | Draft circulated for comment: ICF Members |  |