



## TECHNICAL WRITE-UP

The **IMQS** Approach to  
mSCOA-ready Infrastructure  
Asset Management

## INTRODUCTION

Since democratisation in 1994, South Africa has made great strides on all levels of government - National, Provincial and Local – to streamline business processes and establish governance structures that bolster accountability, transparency and efficiency.

In this ever-evolving environment, municipalities have had to deal with constant change in the form of aligning their fundamental business operations with an every-expanding list of legislative and regulatory frameworks: PFMA; MFMA; Treasury Regulations; DORA; GRAP; SPLUMA; IDMS; SIDMAS.

As a key provider of integrated infrastructure asset management software services, IMQS has proportioned and/or aligned its product offering with most legislative and reporting-compliance requirements particular to the South African municipal environment.

One such regulatory requirement is the Municipal Standard Chart of Accounts (mSCOA). This document outlines IMQS's approach to ensuring that South African municipalities are mSCOA compliant from a Lifecycle Asset Management perspective.

## **mSCOA-READY   INFRASTRUCTURE   ASSET   MANAGEMENT:   THE   IMQS   APPROACH**

mSCOA is a financial-reporting regulatory reform that will come into full effect in South Africa on 1 July 2017. The reform represents a business-process-focused project that standardises all municipal accounting practices and reporting across the country.

Every municipality and municipal entity has a chart of accounts that lists all accounts used in the general ledger. The ledger is leveraged by municipal accounting software to aggregate information into an entity's financial statements. mSCOA targets municipal operations by enforcing a standardisation of municipal account numbers and descriptions in their charts. mSCOA enforces the uniform collection of local government transactional information around seven key segments and fifteen fundamental business processes.

The foundation of mSCOA-ready Infrastructure Asset Management is the standardisation of processes, on the one hand, and the definition of accountability and transparency of information across all stakeholder groups, on the other.

IMQS utilises an end-to-end value-led approach to ensuring its clients are mSCOA ready. This approach looks at the core industry needs from a people, process and systems view. All these elements are critical in changing an organisation into a top performer. The approach takes cognisance of the notion that technology is an enabler or catalyst as opposed to the complete solution.

## MSCOA IMPLEMENTATION WITHIN IMQS

IMQS understands that being mSCOA compliant does not only bring about a change in the systems a South African municipality uses, but also in the day-to-day processes followed within these organisations. To ensure that a municipality is awarded mSCOA compliant status, IMQS applies a multi-layered approach, clustered according to:



Figure 1: Multi-layered IMQS mSCOA compliance solution approach

### PEOPLE

Change brings about resistance, no matter where it occurs. Although the benefits of mSCOA are known, and strongly agreed with, the journey to reach this goal is daunting none the less. Cognisant of the hurdles related to change, IMQS employs a supportive, hands-on approach by which it facilitates a municipality's journey towards mSCOA compliance.

Our aim is to bring about an inclusive environment through the application of a change management process that ensures a municipality functions as a unit and overcomes the formation of departmental silos. For this reason, IMQS is focused on helping the municipality bring about a mindset change that spans across all municipal departments in order for such change to be accepted across the board.

PROCESS

Well-defined business processes are thus critical for achieving mSCOA compliance. IMQS believes that technology acts as an enabler only when mobilised in an environment supported by well-defined underlying business processes.

To adequately address the above, IMQS firstly analyses current processes in place at the municipality. This is achieved by conducting several face-to-face interviews with all leads across the asset-management lifecycle. As seen in Figure 2, such qualitative research is holistic in nature. Research spans through budgeting and prioritisation phases, to project-component unbundling, component maintenance, and the eventual disposal of an asset. Asset disposal once again feeds back into the project-planning phase.

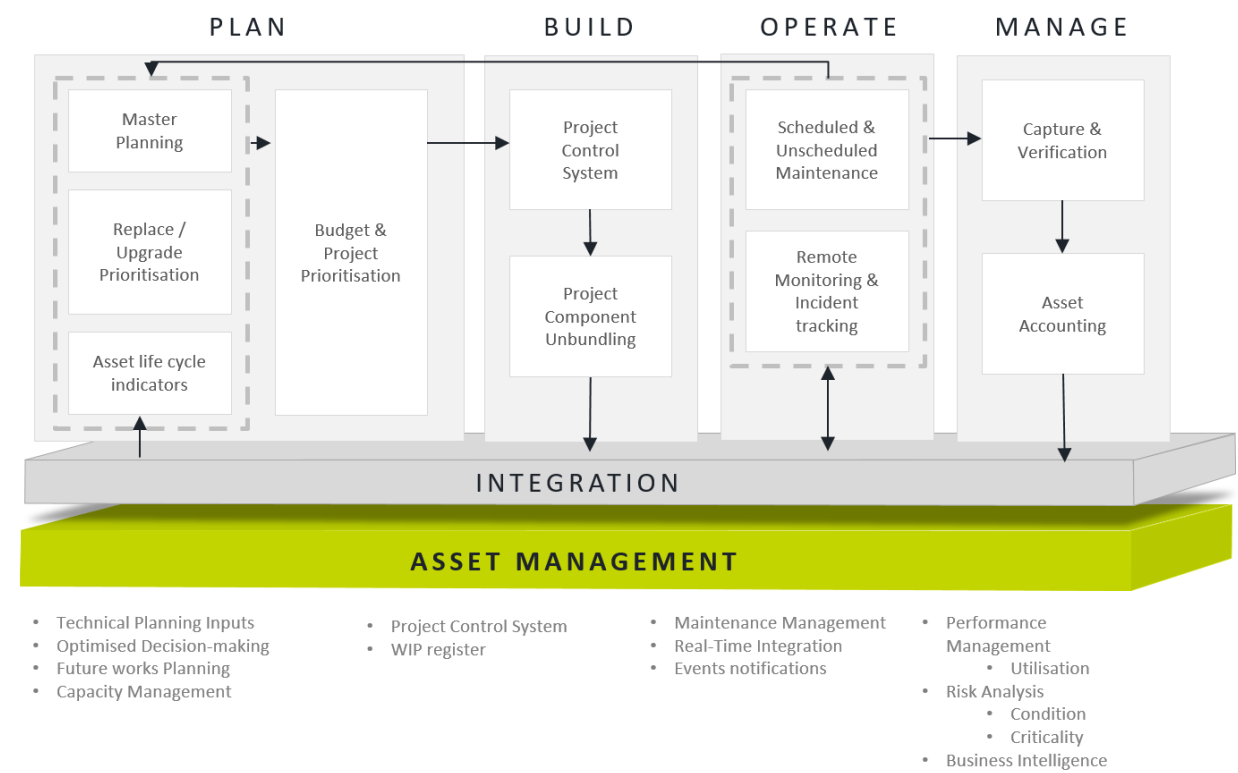


Figure 2: Asset Management Lifecycle

Information gathered from interviews allows IMQS to construct a comprehensive picture of the organisation and locate obstacles across departments that include:

- Communication gaps
- Undefined accountability
- Non-standardised processes

Based on the findings, and 17 years of experience within the Infrastructure Asset Management field, IMQS is able to play an advisory role and make recommendations on how business processes can be modernised.

Modernisation is informed by business processes and informed by the use of technology to ensure that the entire asset management lifecycle is adequately covered. Figure 3 exemplifies the level of detail to which the recommended business processes are designed. Departmental accountability, hand-over points, as well as systems to be used are therefore clearly defined.

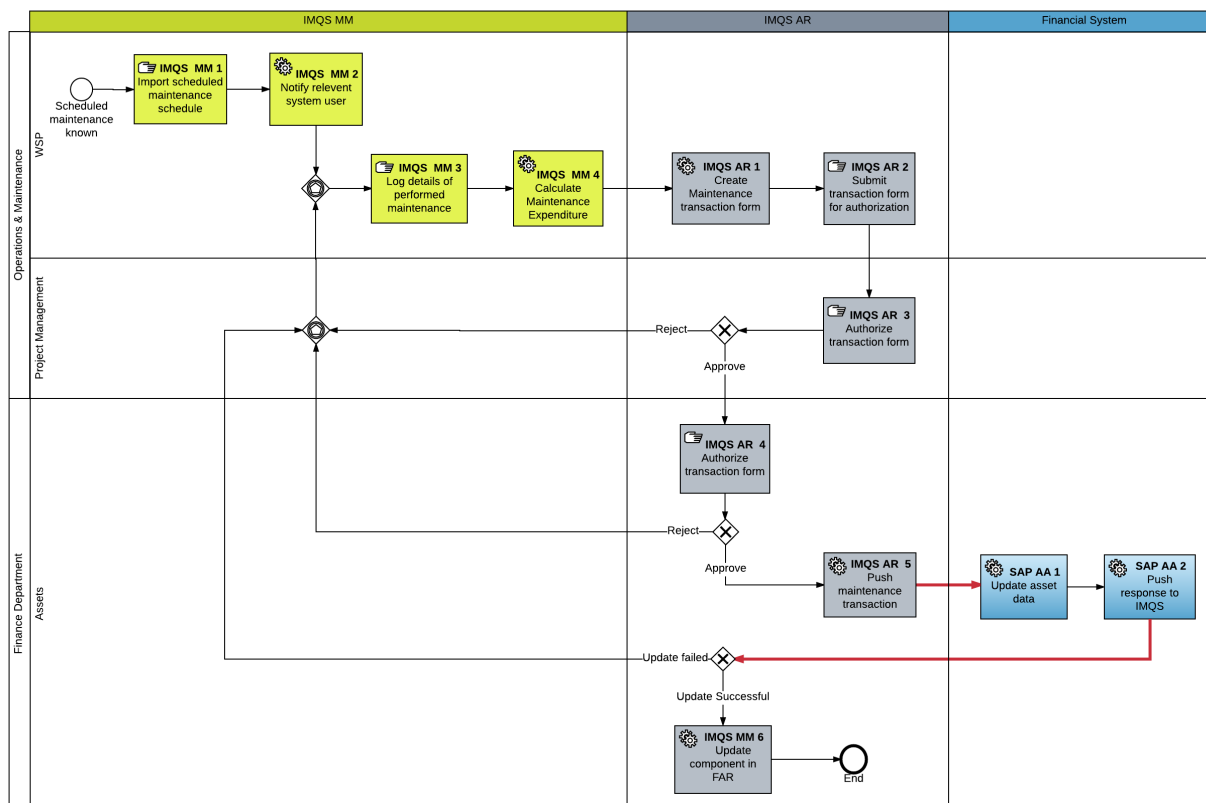


Figure 3: IMQS Recommended Business Process Example

## TECHNOLOGY

The IMQS system is flexible enough to integrate with any Financial System, including:

- SAP
- Bytes: SAMRAS
- Business Connexion: SOLAR

Figure 3 depicts the recommended touch-points between the integrated systems. With specific reference to mSCOA, IMQS places the 7 mSCOA segments as a reporting layer above the asset transaction that is taking place. The three-phased solution is outlined below.

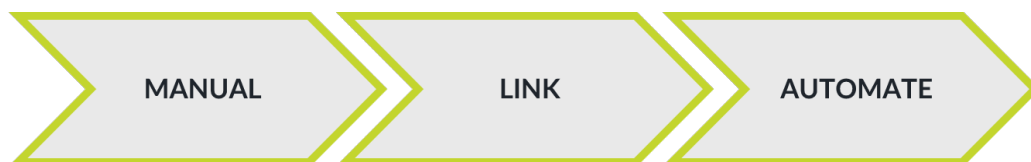


Figure 4: Three phased mSCOA compliance approach

### Phase I: Manual

All asset transactions happen via a transaction form within IMQS. The transaction form is a mechanism used to update the Financial Asset Register (FAR) and can be described as a temporary storage allowing for the implementation of authorisation levels.

A user has the ability to select the 7 mSCOA segments for every transaction performed per asset. This includes the debit and credit legs of each mSCOA-Item transaction. During Phase I, the entire mSCOA classification, as provided by National Treasury, is made available for selection within IMQS.

A search function is introduced during Phase I to assist with navigating the large amounts of data provided.

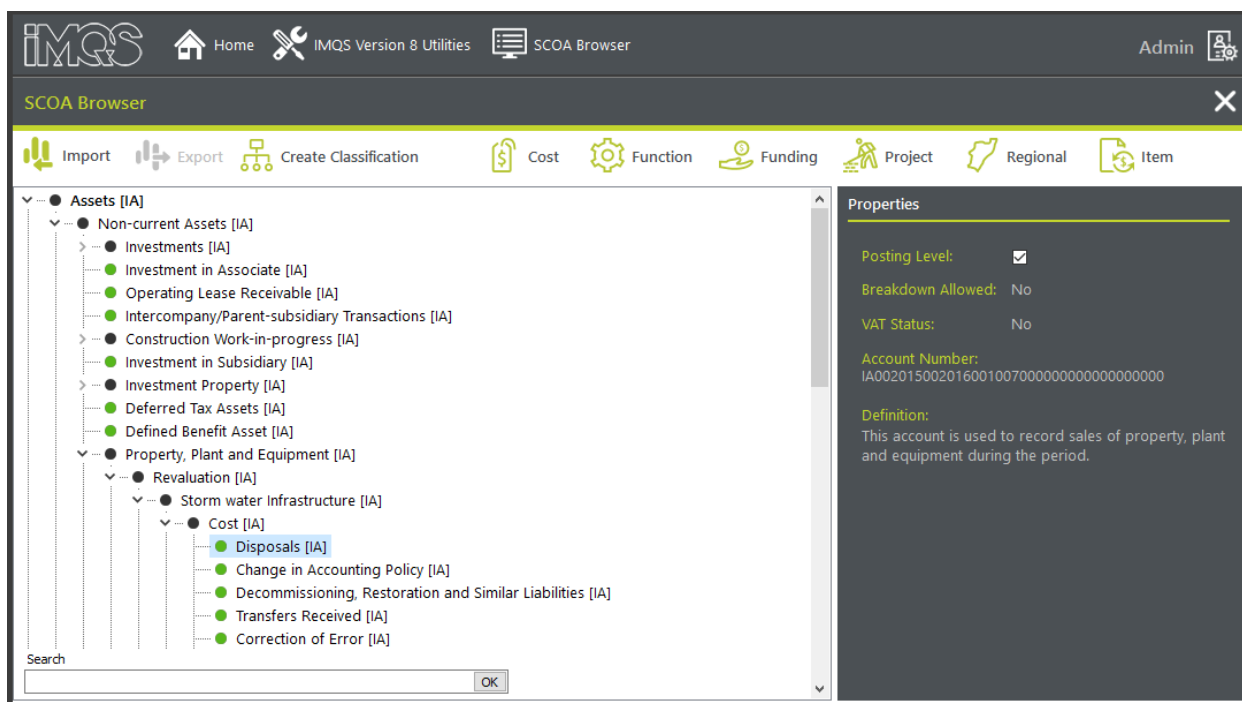


Figure 5: mSCOA classification selection within IMQS

Once the transaction has progressed through all the levels of authorisation, and committed to the FAR, a mSCOA Journal is created within IMQS. The contents of this mSCOA Journal are depicted in Figure 6.

The user can then send the generated file to the integrated Financial System by using the mechanism of their choice. Files can either be sent through a file-based transfer or via a web service. The Financial System appends any additional information and transfers the mSCOA Journal to National Treasury.



File Contents		Description
2017-02-23	-	Transaction date
7008.22	-	Transaction amount
Acquisition	-	Transaction description
47c7ba65-c270-4a7f-91ba-3842eb629ddf	-	mSCOA Cost segment: Default
2d32384d-4dba-4870-9ac0-bbfec6f0151b	-	mSCOA Function segment: Water Distribution
9fec2aef-f0ae-42ee-be0a-865acb455315	-	mSCOA Funding segment: Municipal Inf Grant
d24e57ac-de4f-449c-853f-d10bd7bdbfd8	-	mSCOA Project segment: Distribution
6256c8a6-dfd6-4176-80b2-7cdba1795e16	-	mSCOA Region segment: Ward 10
e26c07e7-b14e-4413-9c5d-694f0d3c947c	-	mSCOA Item Credit segment: Payables and Accruals
bbe1e1d4-efc0-4d65-bab2-97e2f46743ed	-	mSCOA Item Debit segment: Acquisition
Water Department	-	Municipal Standard Classification
<b>Pipe Delimited View:</b> 2017-02-23  7008.22  Acquisition  47c7ba65-c270-4a7f-91ba-3842eb629ddf  2d32384d-4dba-4870-9ac0-bbfec6f0151b 9fec2aef-f0ae-42ee-be0a-865acb455315 d24e57ac-de4f-449c-853f-d10bd7bdbfd8 6256c8a6-dfd6-4176-80b2-7cdba1795e16 bbe1e1d4-efc0-4d65-bab2-97e2f46743ed Water Department		

Figure 6: IMQS produced mSCOA Journal

To assist with the query of the mSCOA Journal, IMQS provides a dynamic, self-configurable reporting mechanism. Within this mechanism, users are able to build a custom report by applying filters and grouping the generated mSCOA Journals.

Phases II and III that follow are aimed at improving the mSCOA segment selection.

## Phase II: Link

During Phase II, IMQS aims to reduce the available options presented to the user by associating certain mSCOA segment-nodes directly with the financial asset hierarchy. The goal is to allow the system to guide the user towards the correct mSCOA nodes, as based on the type of transaction being processed and the transaction that is taking place.

## Phase III: Automate

Once the municipality's application of the mSCOA regulation has matured enough, IMQS, with the assistance of the municipality, aims to fully automate the mSCOA segment-node selection. The front-end user will capture the performed asset transaction within the system and the mSCOA reporting layer will automatically be assigned based on the transaction and type of asset being transacted on.

## **BUSINESS BENEFITS**

The implementation of an mSCOA-compliant GIS-enabled FAR supports a municipality's mSCOA readiness and puts it firmly on the road to comprehensive Lifecycle Asset Management.

The foundation for comprehensive Infrastructure Asset Management is laid by asking hard questions regarding business processes, as well as the communication and distribution of information between municipal departments. A systematic, technology-driven roadmap towards overcoming challenges can therefore be constructed that will guide further change. In a coherent, unified manner.

The IMQS FAR is one block in the comprehensive solution that affords a municipality a one-world-view of their infrastructure landscape, both in terms of finance and engineering. A full solution harnesses the power of additional products such as Project Control System and Maintenance Management Module that for part of a greater integrated system.

This holistic-systems approach ensures that operations are run with improved efficiency and effectiveness. Ultimately, the reputation of an organisation is enhanced through:

- Improved financial performance
- Informed decision-making around capital
- Optimised service delivery