



IMQS SOLUTIONS

**ASSET MANAGEMENT**

## OVERVIEW

Asset Management is a capability that is delivered through IMQS's modular Infrastructure Asset Management solution.

The Asset Management capability delivers a systematic approach to effectively budgeting, establishing, maintaining, upgrading and operating physical infrastructure assets.

IMQS's comprehensive Asset Management capability is delivered through a mature, integrated and continually evolving suite of software applications. These applications have been proven in rugged and challenging environments across government, municipal and corporate environments.

## PROBLEM(S) / PAIN POINTS

Today, more than ever before, infrastructure management roles within municipalities and other organisations face numerous challenges in operating the Infrastructure Asset Management lifecycle. These challenges include but are not limited to:

- Identifying and managing the many processes and risks associated with a diverse range of assets throughout their lifecycle.
- Tight financial controls
- Pressure to deliver services on existing infrastructure
- Analysing, filtering and intelligently using massive volumes of data across different asset classes.
- Driving compliance to legislation and standards
- Data and management tools spread across disparate systems and processes which are not integrated.

## **SOLUTION(S)**

In order to control direct and manage asset management activities, the implementation of a modular, practical, effective and evolving asset management system is essential. Such a system not only supports management of risks associated with assets but will also will ensure that strategic objectives are aligned and affordable levels of services are achieved. However an asset management system alone will not enable a municipality to achieve all of the required asset management objectives such as leadership, motivation, culture and behaviour, which should be managed by using arrangement outside the asset management system such as an asset management steering committee.

An asset management system provides a structured approach for the development, co-ordination and control of activities on assets by the municipality over the life cycle of its assets.

Asset management is very data intensive and new tools and processes are often necessary to collect, assemble, manage, analyse and use asset data. In developing these tools and processes through a systematic implementation plan the municipality inevitably improves on its institutional knowledge and significantly improve their decision-making capabilities.

As a result of the challenge to integrate the different assets layers with the associated layers of information, such as physical properties, spatial and treasury data, maintenance plans and asset registers, asset management has historically been fragmented into sectors, like water or roads. The IMQS solution known as Infrastructure Management Query Software (IMQS), offers the ideal solution to access and integrate this data seamlessly.

This simple yet powerful system manages to manipulate external data to provide knowledge at a glance by cutting across various types of assets and information. It gives a holistic view that is graphically represented in an integrated asset management, GIS based system.

The approach IMQS adopts to deliver effective Infrastructure Asset Management is risk based. Every asset has a lifecycle and at every stage of the lifecycle there are various risks that an asset is potentially exposed to. The Asset Management capability supports the identification and management of risks throughout the lifecycle of infrastructure assets.

The risk based approach is summarised in the table below.

<b>STAGE OF LIFECYCLE</b>	<b>ABILITIES / ADVANTAGES DELIVERED AT EACH STAGE</b>
Master planning	<ul style="list-style-type: none"> <li>Infrastructure component data capturing, system modelling and optimised planning of required components to accommodate future growth</li> </ul>
Field Inventory	<ul style="list-style-type: none"> <li>On-site inspection, identification and data verification of infrastructure components.</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>Assess the condition of infrastructure components</li> </ul>
Condition rating	<ul style="list-style-type: none"> <li>Categorisation of infrastructure components in accordance with assessed condition</li> </ul>
Maintenance Planning	<ul style="list-style-type: none"> <li>Comprehensive description of maintenance requirements</li> </ul>
Prioritisation of maintenance actions	<ul style="list-style-type: none"> <li>Scheduling of preventative and routine maintenance actions in accordance with risk based prioritisation</li> </ul>
Optimisation of funding	<ul style="list-style-type: none"> <li>Allocation of funding to projects based on priority</li> </ul>
Preparation of work schedules	<ul style="list-style-type: none"> <li>Compilation of schedules for performing tasks related to planning and implementation of projects and the subsequent maintenance thereof.</li> </ul>
Capturing of maintenance actions	<ul style="list-style-type: none"> <li>Managing and recording of maintenance actions</li> </ul>
Update of compliant asset register	<ul style="list-style-type: none"> <li>Continuous updating of asset register ensuring compliance with all government regulations</li> </ul>

<b>STAGE OF LIFECYCLE</b>	<b>ABILITIES / ADVANTAGES DELIVERED AT EACH STAGE</b>
Comprehensive management reporting	<ul style="list-style-type: none"> <li>• Reporting on all asset management related aspects</li> <li>• Reporting complies with regulations</li> </ul>

## **PRIMARY BENEFITS**

- Improved governance and accountability
- Enhanced service management and customer satisfaction
- More control of data quality
- Improved risk management
- Improved financial efficiency (cost savings)
- Foundation set for success
- Informed decisions
- Reporting is GRAP / GAMAP compliant (practices that municipalities need to abide by)
- Dynamically supports informed decision making which ultimately contributes to optimising Asset Management processes.
- Drives optimal asset preservation of authorities and seamless information transparency within a holistic service delivery strategy.
- Provides business intelligence on all lifecycle aspects in order to support financial, operations and planning managers in line with the LG Systems Act, thereby bridging the gap between finance and engineering.
- Fully satisfies the requirements regarding asset management as stipulated in the Municipal Finance Management Act (MFMA) and complies with the prevailing accounting standards.
- IMQS provides users with an integrated decision support software suite to facilitate this challenging business process.
- Integrated environment ensures optimal asset preservation within the holistic service delivery strategy of authorities, easily achieved through seamless information transparency

## **TECHNICAL / FUNCTIONAL / FEATURE INFORMATION**

The primary features and functions that the Asset Management capability delivers are listed below:

- Web-based or desktop
- Flexible and open integration layers
- Asset accounting
- Movable & immovable
- Engineering expert system integration
- Financial system integration
- Future works planning
- Maintenance budgets
- Document management
- Business intelligence (real-time or management)
- GIS & Mapping
- Mobile devices
- Bar coding

## **CLIENT REFERENCES**

Some of the clients that are deriving value from IMQS's Asset Management offerings include:

- Ekurhuleni Metropolitan Municipality
- Johannesburg Water
- City of Tshwane
- City of Cape Town