

Asset Information Forum Update



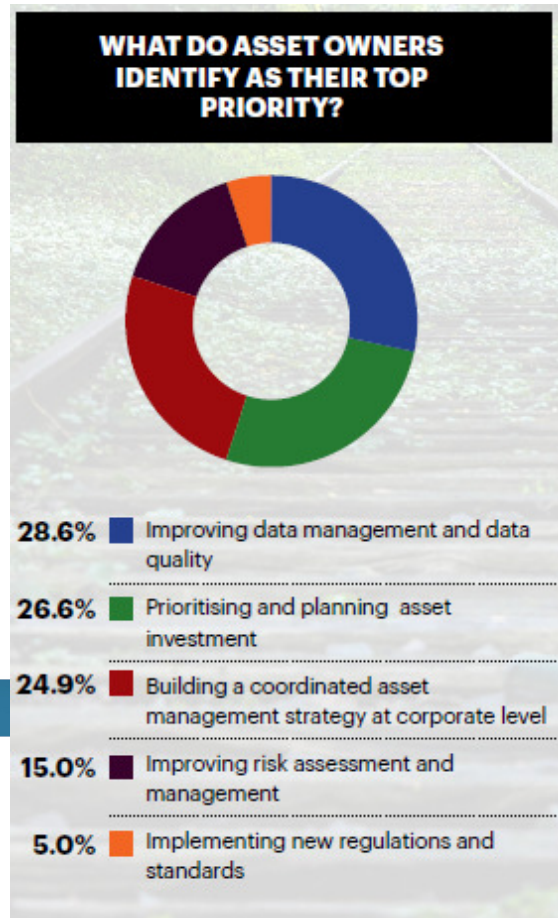
Role of Asset Management Group

- Key activities:
 - Develop, enhance, maintain and publish technical guides
 - Convene Asset Managers Forums to provide an opportunity for exchange and learning from others
- Undertakes its work through voluntary contributions of members time, and through targeted engagement of consultants
 - The group has broad industry representation
- EEA provides a technical secretariat role and the meeting venues



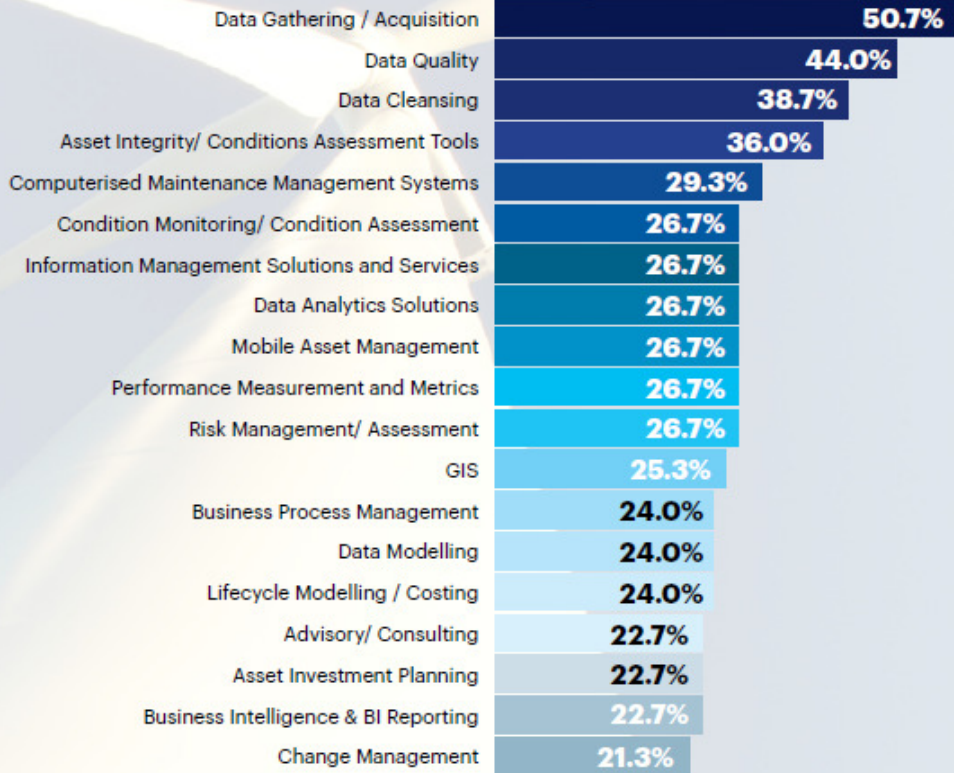
International perspectives on Asset Information

Survey results published in briefing document at Infrastructure Asset Management Exchange, March 2015, London



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Which investments will they be making in the next 12 months to help improve data management and data quality?*



Electricity industry regulatory perspectives

- Increasing international expectations for improved:
 - Transparency, consistency, repeatability in investment decision making
 - Clear and robust basis for prioritising expenditure
 - Use of monetised risk forecasts to compare and review expenditure plans
- Increasing requirements by regulators for information disclosure to enable scrutiny and verification
- Consolidation (and mandate) of approaches
- All the key outputs depend upon the availability and quality of selected input data



Our perceptions of asset information management in NZ

- In some infrastructure businesses (including in our sector), there is a low level of maturity
 - frequently lower than other dimensions of asset management
- We see a tendency (particularly at a senior level), to consider that the asset management information problem is solved once a new IT platform is in place:
 - ie the focus is often on the risks associated with delivering a high cost capital investment to establish the platform, not on what is required to actually realize the intended medium to long term business benefits



Recent developments

- The IAM Subject Specific Guide on Asset Information (published in Oct 2015) is a significant development that could meet some of our identified needs
 - Particularly in raising awareness and understanding of good practice in asset information management amongst stakeholders, and developing a common language
- A further significant development is the work underway to develop data standards in roads and waters asset management.



Data standards development in other sectors

- Several data analytics groups have been established, to build sector-specific asset information standards:
 - TAGG – Transport Analytics Governance Group
 - WAGG – Water Analytics Governance Group
 - BHAGG – Buildings & Housing Analytics Governance Group
- The TAGG group includes AustRoads - the association of Australasian road transport and traffic agencies.
- There are strong parallels with the standardised asset information models for electricity distribution now agreed by the regulator for DNO's in the UK
- Our local NAMS has data standards as a high priority in their 1-2 year work programme



Extracts from the draft Data Standard for Road Management

Scope: The standard is designed to provide:

- A common understanding of the meaning or semantics of the data
- Consistency in data definition and format
- A list of typical data fields that support road management and investment functions
- Data guidance for different levels of sophistication in asset management practices
- Data standards that can be adopted and implemented in part or fully
- Detail on harmonised data fields to ensure consistent application

Note: the scope of this roads data standard covers a diverse range of road-related asset types, including bridges, culverts, pathways, retaining walls, lighting etc, in addition to the more obvious pavement and pavement surfacing



Extracts from the draft Data Standard for Road Management

Table 1.1: Asset Data Types

Data Type	Description	Examples
Classification	Different types of functional road classifications in a fit for purpose manner	highways, arterial roads, collector roads, and local roads
Inventory	Location of assets	linear referencing, Global Positioning System (GPS) or other methods of capturing location and dimensions.
	Description of the asset	pavement and bridges
Condition	Condition of assets	common measures for rutting, cracking, roughness, defects, condition profile
Performance (asset)	Technical performance of an asset	renewal ratio and smooth travel exposure
Performance (customers)	Performance of an asset from the end user's perspective	speed, congestion
Corridor Access	Access limits for heavy vehicles	mass, height and width
Demand	Demand for a particular road asset	annual average daily traffic and traffic loading
Works and Costs	Physical work activities and the metrics to measure costs	sealing, major patching, resealing, asphalt resurfacing, bridge repaint



Extracts from the draft Data Standard for Road Management

Table 7.1: Data Schema Structure

Field Name	Description
Data Type (Table Name)	One of eight data types (Classification, Inventory, condition, asset performance, customer performance, corridor access, demand, and works and costs).
Field Type	The category, which best describes the data purpose: L Location data D Description data P Asset planning data (for forecasting the future asset state and related financial liability) I Information data (deemed optional)
Field Name	The name of the data field (lowercase with words separated with an underscore character).
Field Description	Short description of data field including purpose.
Data Confidence	Indication of the data quality in terms of accuracy. Options include 'estimated', 'inferred', and 'measured'.
Calculated or Summarised	F The data is a direct measure (ie. 'raw' data). T The data has been derived, either calculated or summarised from a 'raw' data source(s).
Harmonised/Standardised	H Harmonised data field, which has been subject to consultation across the industry and agreed by consensus. S Standardisation data field, which has been specified based upon good industry practice.
Location and Inventory Sophistication	L1 Non-graphical asset register (asset location referenced to known locations). L2 2D Digital and Graphical Representation (network centreline spatially located, assets referenced to network centreline, detailed asset description and performance data, parent/child asset component relationships defined). L3 3D Digital and Graphical Representation (asset spatial location referenced to network and assets, detailed asset description and performance data attributes linked to shape files, parent/child asset component relationships defined). Refer s4.1 for further guidance.



Towards improvement in asset information management

- AMG is keen to support initiatives that will assist our industry to improve asset information management.
- The IAM Asset Information Guide, together with the precedents provided by the data standards work in other sectors could provide a way forward for an EEA Industry-specific Asset Information Guide.
- However, in the meantime, there is probably more value for EEA members in supporting forums for exchange of issues and approaches to asset information management.



Asset Information Forum – 5 May

- Convened by Jules Congalton – Unison
- Held at Transpower – Wellington
- 14 attendees
- Diverse representation of organisations and roles
- 8 electricity companies represented



Asset Information Forum – topics

- CAD and GIS – duplicated information
- How good is my asset information ?
- Integrity and quality of data with maintenance management systems
- Data use agreements
- Financial value of data
- As-builts – ensuring quality
- Information Asset registers
- GPS – changes in the position of assets due to land movement
- Future direction for AIMF ?
- What data governance is required and how should it be implemented ?



Asset Information Forum – next steps

- It was a great opportunity to share issues and approaches
- There is value in creating a network of asset information specialists for our sector
- Attendees suggested a similar forum be held in 12 months time
- EEA Asset Management Group will consider promoting and organising the next event

