Does a strategic approach to asset management make a difference?

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Why a strategic approach worked for Balfour Beatty Mott MacDonald

PAS 55 / ISO 55000 Case Study
Historical problems

- Tasks being done; just not coordinated and effective.
- No clear line of sight to client (Highways England) objectives.
- No defined asset management strategy or policy to provide direction.
- No central point of focus for the business – management in silo’s.
- No Asset Management Plans
- No clear focus or identify for the asset management team.
- Staff without formal AM training or assessed competence.
- Disjointed level of service; low confidence from the client.
- No clear link between network needs and renewal schemes prioritised within available funding.
Area 10 Strategic Road Network and assets

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures</td>
<td>2223</td>
</tr>
<tr>
<td>Pavement</td>
<td>1,304 c/way km</td>
</tr>
<tr>
<td>Lighting Columns</td>
<td>16,995</td>
</tr>
<tr>
<td>VRS</td>
<td>1182 km</td>
</tr>
<tr>
<td>Boundary fencing</td>
<td>769 km</td>
</tr>
<tr>
<td>Gullies</td>
<td>32,741</td>
</tr>
<tr>
<td>Traffic Signals</td>
<td>23 sites</td>
</tr>
<tr>
<td>Piped drainage</td>
<td>3,152 km</td>
</tr>
<tr>
<td>Traffic signs</td>
<td>11,650</td>
</tr>
</tbody>
</table>
PAS 55 /ISO 55000 journey

Full ISO assessment – Nov 2017

Full assessment in Area 10 Dec 2013 leading to confirmation of accreditation to maturity level 3 May 2014

The first highway maintenance service provider/organisation to achieve PAS55

Gap analysis in Area 10 Sept 2013 (applied key learning from Area 4)

ISO 55000 gap analysis

Area 10 ASC defined asset management for a maintenance contract (contract commenced Nov 2012)

Built on initial Area 4 trial and achieved accreditation Nov 2013. (not a contractual requirement)

Mapped processes between HE/ Service Providers onto PAS 55 Elements

Trial application in Areas 2 and 4 in 2010-11
Plaudit from assessors

“It is evident from the 2nd surveillance visit that significant progress has been made in the development and implementation of the asset management system in BBMMJV Area 10 since the original PAS55 assessment in late 2013 / early 2014. The role of the Asset Manager has been valuable in maintaining a focus on the requirements of good asset management practice, and PAS55 in particular, in the development and direction of day-to-day business process as well as delivering actions identified from previous audits. This has led to the auditors identifying elements of best practice and the compliance of some elements being improved from the previous audit.”

Initial impression from gap analysis

- Area 10 has an overall good level of asset management capability when assessed against ISO55000.
- Area 10 have implemented many additional aspects of good practice asset management
- Area 10 would be able to demonstrate the required level of competence to achieve ISO 55000 accreditation
- There are no significant gaps in Area 10 Asset Management capability, and therefore, none of the recommendations involve a fundamental change to existing practice, or require the development of new strategies or processes.
The final assessment (review need for slide)

- Full Assessment Report
  - PAM scoring plus Summary Report text – specialist sector views
  - Range of Element scores 2.8 to 3.1 - Mean score 3.0
  - 9 Elements scored 2.8 to 2.9 – improvement actions agreed
ISO 55001 recognises the need to link organizational goals to asset activities.

All capabilities for managing assets such as processes, resources, competencies and technologies.

Framework for direction, coordination, control and sustainability of asset management, including capabilities for planning, operational control and continual improvement of both the assets and the asset management system itself. This is what ISO55000 assesses.

Life cycle activities understood and applied to assets during different life cycle stages, utilization, maintenance and renewal.

All highway assets but principles transferable e.g. to rail.

AM policy and strategy plus Area Business Strategy to provide line of sight to Highways England goals and objectives.
Improvements to Asset Data analysis

- Developed robust processes
- Dedicated team of stewards feeding intelligence to Asset Champions
- Improved understanding of data gap (inventory)
- Improved management

and Routine Maintenance activity

- Risk based targeted approach *(reliant upon quality of data)*
- Maintenance Requirements defined by Asset Managers
What does this mean for BBMM?

- Senior leadership buy-in to ‘asset management as a core business function’
- Resourcing structure with asset management at its centre (Business model)
- A recognised and accredited integrated system from network needs through scheme identification to best solution delivery (asset management framework)
- Greater client confidence in service.
- A clear line of sight to client objectives.
- A more robust long term programme of work aligned to available investment.
- Better analysis and mitigation of asset risks
- Clear Policy and Strategy underpinned by a clear framework
- Staff with assessed competence and recognised qualification
Issues as a focus for strategic asset management

1. Control of assets
2. Strategic approach to people
3. Effective use of technology
4. Strategic approach to processes
5. Integrated asset portfolios
1 - Control of assets

Is the concept of Whole Life Cost really embraced?

- How does the way we contractually manage the asset over its lifecycle affect matters?

- How much is asset ownership delegated down the supply chain?

- What influences decision making with capital expenditure and operational expenditure?

- Who controls asset management? Who is best to?
2 – Strategic approach to people

Having great processes is great but people issues matter!

- How competent are our people?
- How do collaborative relationships affect matters?
- How long does it take to change cultures?
3 – Effective use of technology

Technology supporting asset management strategy

• Improving data quality and consistency through use of sensors and other technology

• Effective use of software and analytics to better handle data and optimise processes

• Changed user behaviour and changed ways of operating asset, embracing disruptive technology such as Uber
4 – Strategic approach to processes

Developing strategy to modify processes and deliver the real value from our infrastructure

• Achieving a step change in the way we do things

• Risk based approach to asset management

• Quality and quantity of data
5 – Integrated asset portfolios

Future opportunities and challenges

• Not just a combined approach to highway assets but combined transport modes and associated assets

• Dealing with risk and value across asset classes and types
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