

7th IWA REGIONAL CONFERENCE
Yokohama, February, 2012

**INTERNATIONAL ASSET MANAGEMENT
BENCHMARKING;
Lessons from 2008 and Directions in 2012**

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PRESENTATION OUTLINE



1. Context – The nature of the challenge
2. International Benchmarking
 - What is it
 - Previous outcomes and prospects
3. Emerging Issues in Asset Management

THE BIG PICTURE – Global and Domestic Challenges



- Implementing MDG's
- Water Scarcity
- Equity and Social Dislocation resulting from competition for available water
- Effective Governance
- Protecting the Water cycle: Environmental discharges, urban intrusion, catchment management, water quality



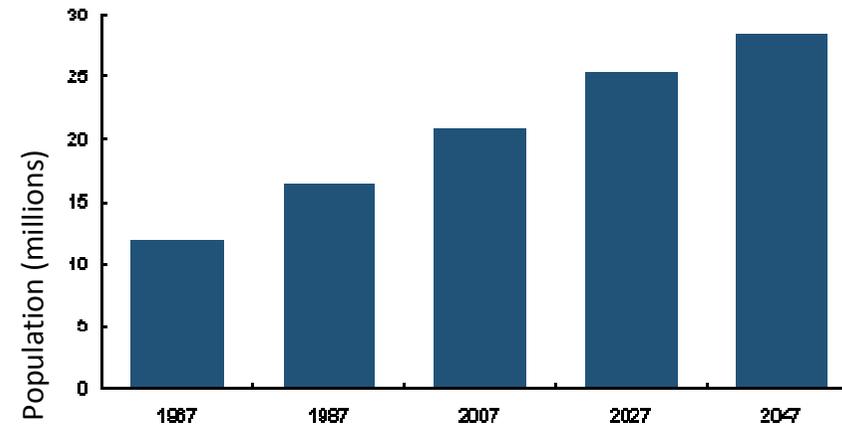
THE BIG PICTURE – continued



- Responding to global warming / climate change
- Significant asset development, growth and rehabilitation
- Skills shortages arising from demographic changes and competing demands from other industries
- New technologies enabling data collection and analysis on a previous unprecedented scale
- Increasing levels of stakeholder involvement and engagement
- Increasing complexity in customer needs and relationships
- Regulatory scrutiny and control
- Access to capital for investment

AUSTRALIA: Additional Influences

- Managing alternative water and sewerage systems
- Resource recovery not waste disposal
 - Including Third party mining of metals, water and nutrients
- Urbanisation
 - Increased Density, infill and brownfield developments
 - Changing household types and demand patterns
- New Suburbia
 - Gated communities (the blurred interface between utility and end customer, interposed billing entities,
 - Liability and responsibility if developer disappears
- Encroachment on water facilities
 - Sewage Treatment Plants – pressure on buffer zones
 - Catchments for land value (growth) and recreation
- Impacts of declining water use on sewer flows
 - Odour, corrosion, STP treatment capability
- On-going pressure for institutional and market reform
 - Government interest in increased private sector participation including direct competition
- Weakening commitment to full cost recovery



Source: Treasury Intergeneration Report 2007



IWA-WSAA International Asset Management Benchmarking Projects

What are they?

- A Rolling 4 Yearly Global Water Asset Management Process Benchmarking Project
- First commenced by WSAA in 2000
- Focus is on life cycle processes and therefore compliments the PAS55 / ISO 55000 management system approach

2008 Project co-sponsored by IWA

- 42 Utility Participants from 7 countries

2012 Project now under way

- Objective is for 60 Participants – including at least 10 from Europe
- Project will run from February to Dec 2012



DEFINING THE TASK

ASSET MANAGEMENT

- Any system whereby things that are of value to an entity are monitored and maintained.
- Can apply to both tangible assets and to intangible concepts such as intellectual property.
- A systematic process of operating , maintaining, and upgrading assets cost-effectively
- For public infrastructure: The process by which built systems or facilities are monitored and maintained, with the objective of providing the best possible service to the community.



BENCHMARKING

- The process of comparing one's business processes and performance metrics to industry bests and/or best practices from other industries.
- Dimensions typically measured are quality, time and cost.
- Involves: **Identify** the best firms in the industry, or in another industry where similar processes exist; **Compare** the results and processes of those studied (the "targets") to one's own results and processes; **Understand** how well the targets perform and, more importantly, the business processes that explain why these firms are successful.



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IWA – WSAA 2008 ASSET MANAGEMENT PROCESS BENCHMARKING PROJECT

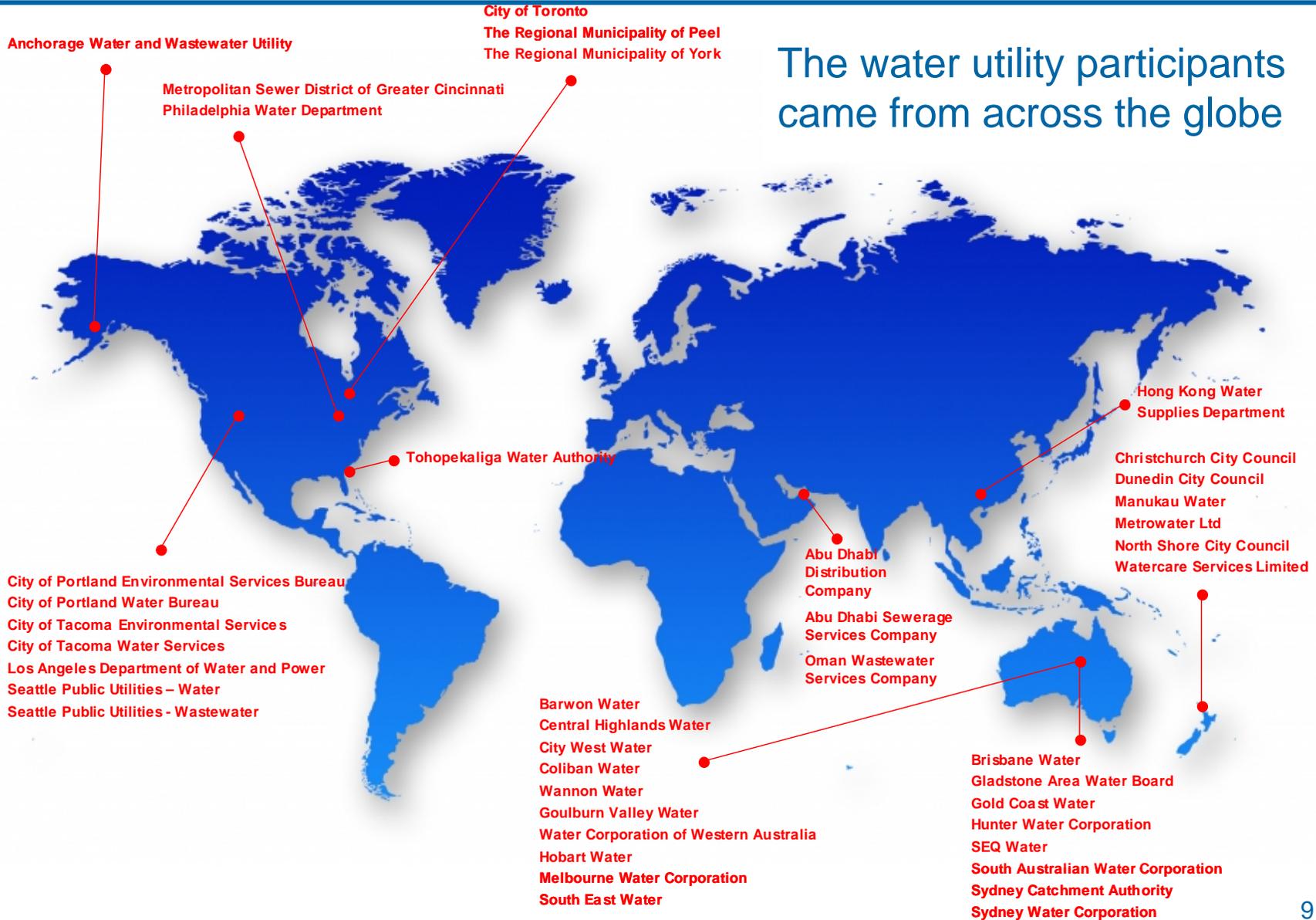


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The water utility participants came from across the globe



Overall project objective:

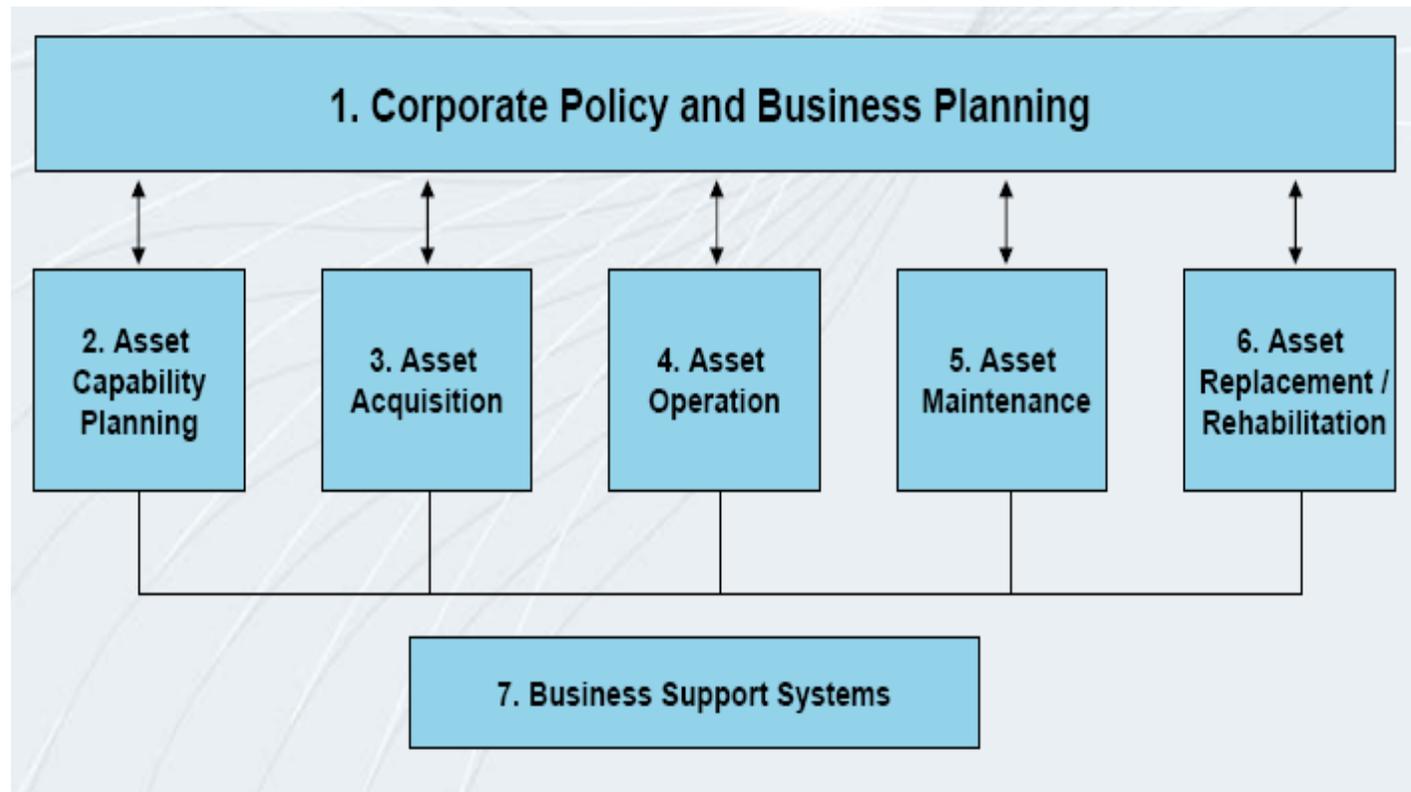
To improve the standard of Asset Management within the water industry; principally through the identification and promotion of “leading practice”.

Individual utility objectives

- Objectively assess strengths and weaknesses
- Provide a comparison against international urban water industry peers
- Identify specific and targeted areas of process improvement
- Provide assurance to regulators and stakeholders of the level of asset management capability
- Network with and learn from peers to identify suitable processes, tools and systems for adaptation and implementation

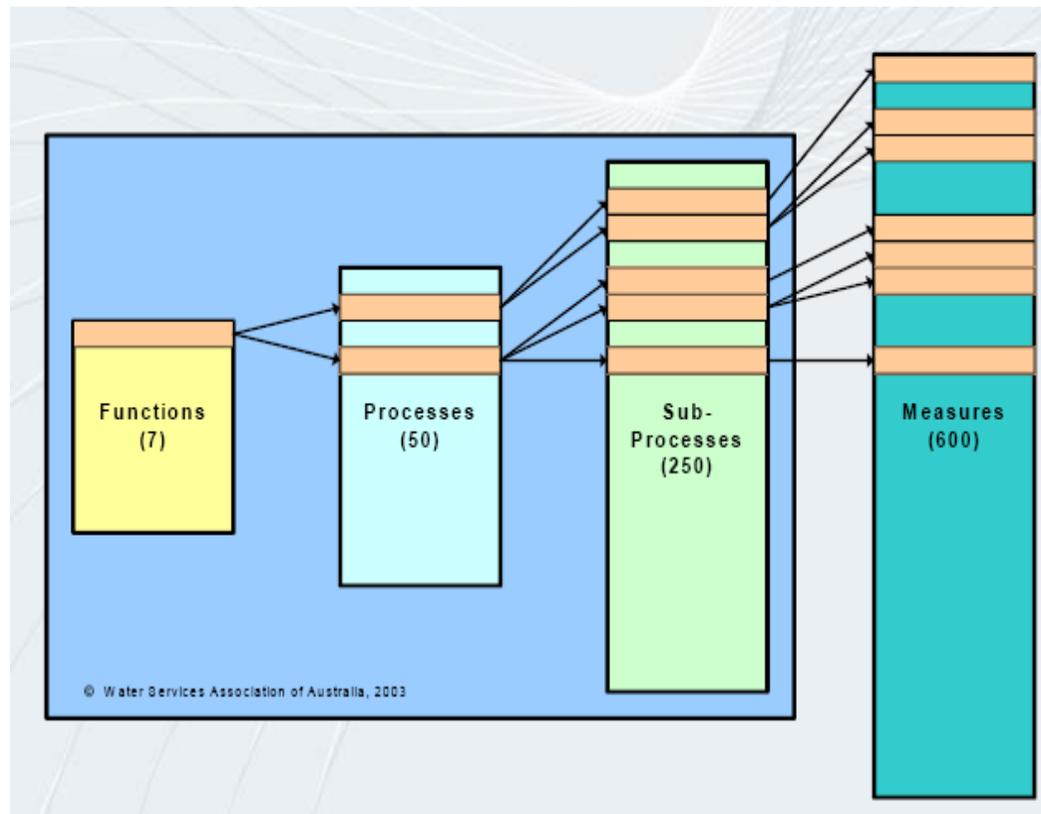
WSAA developed the Aquamark Framework to examine “whole of business” process capability and execution which underpin asset management outcomes.

The asset management aspects of the utility are subdivided into seven functions:

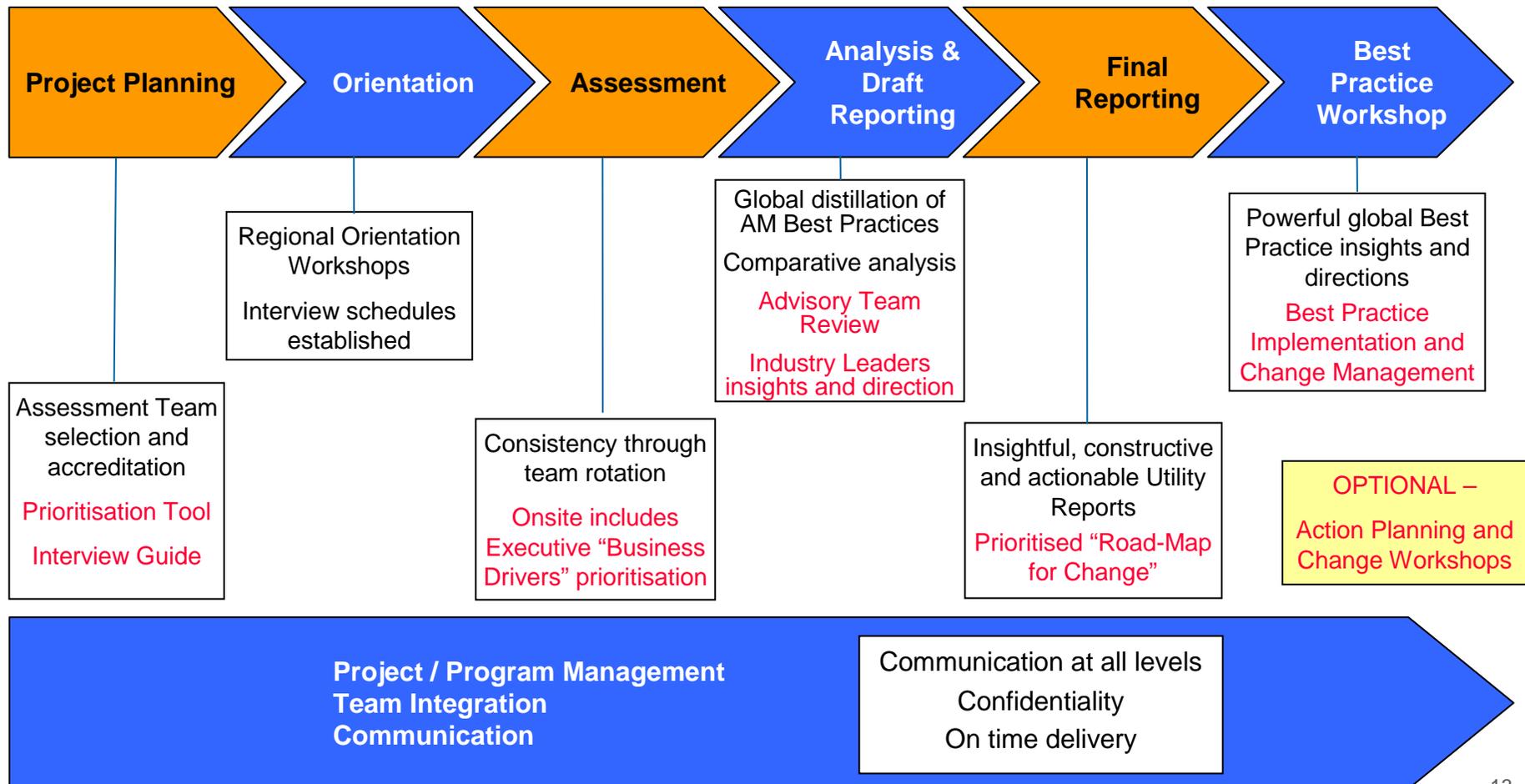


Aquamark Functions 1 to 6 are further divided into a series of 50 Processes

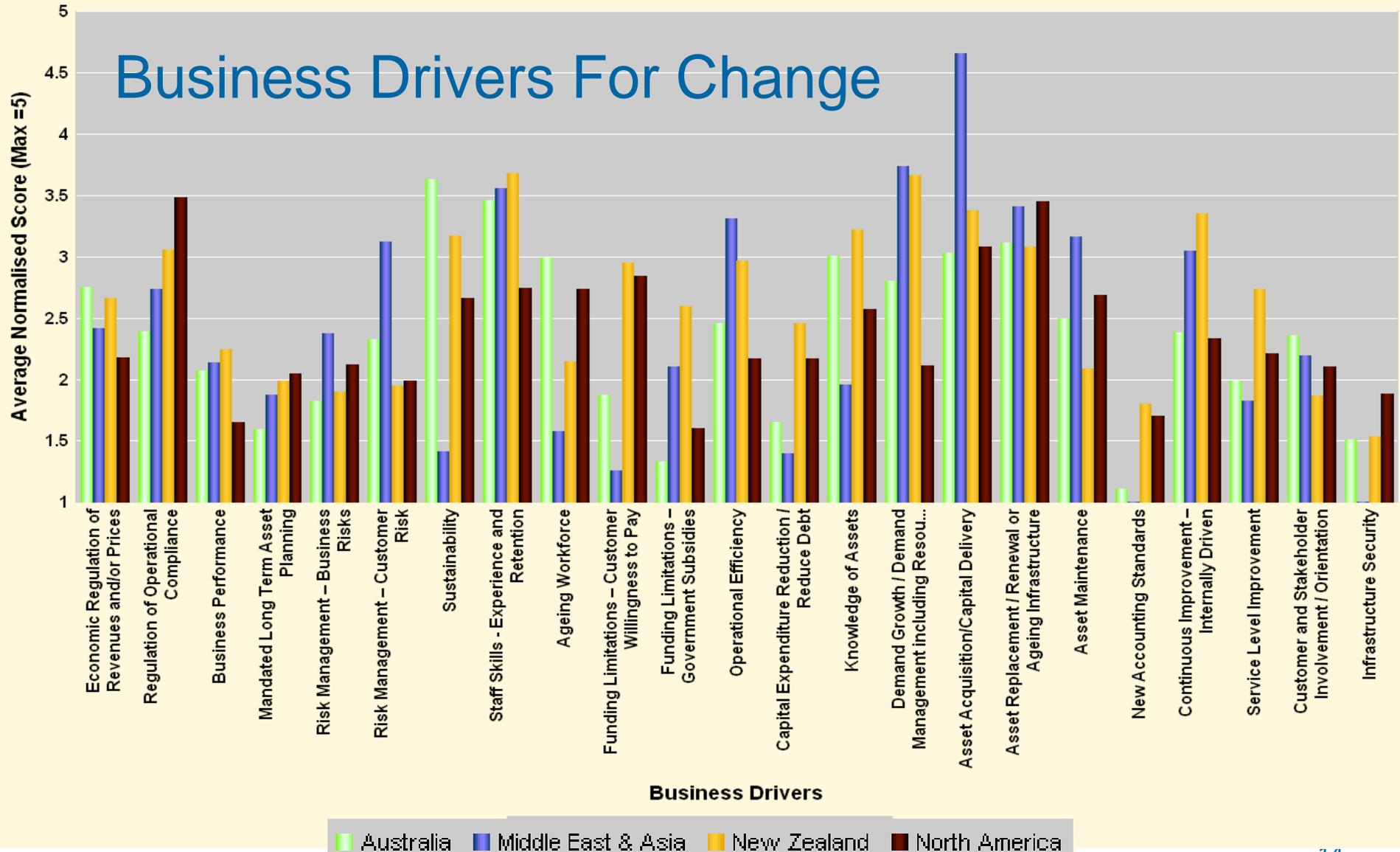
- These are, in turn, developed from around 350 sub-processes and almost 600 measures
- Function 7 (Business Support Systems) has a different structure.



The approach was designed to provide for a large number of international participants



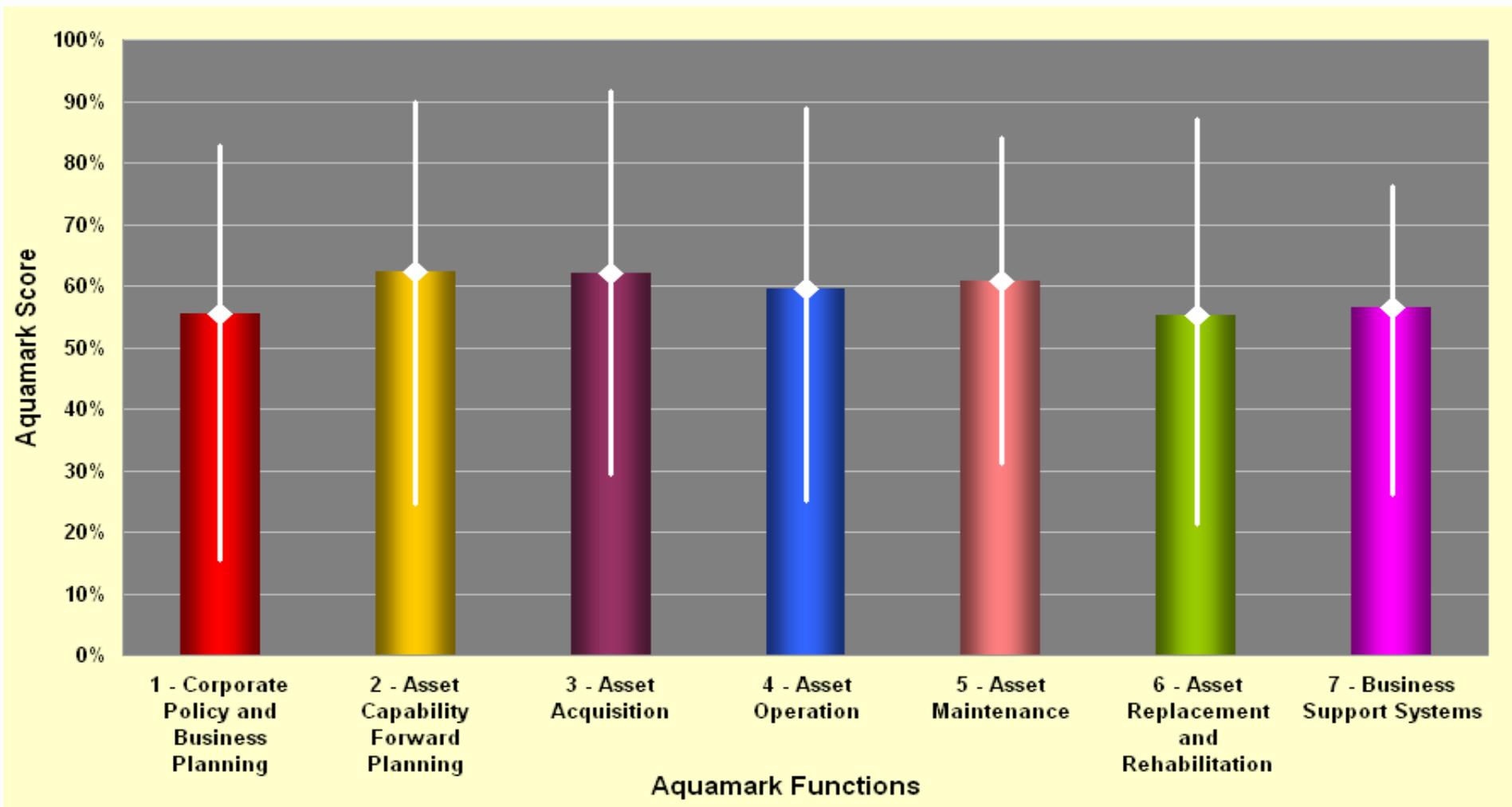
Business Drivers For Change



Priority Business Drivers by Region

Region	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5
Australia	Sustainability	Staff Skills - Experience	Asset Replacement	Asset Acquisition	Knowledge of Assets
New Zealand	Staff Skills – Experience	Demand Growth	Asset Acquisition	Continuous Improvement	Knowledge of Assets
North America	Regulation Operational Compliance	Asset Replacement	Asset Acquisition	Funding Limitations / Willing to Pay	Staff Skills - Experience
Middle East / Hong Kong	Asset Acquisition	Demand Growth	Staff Skills - Experience	Asset Replacement	Operational Efficiency

Overall Aggregate Benchmarking Results



Overall Results – The “Highs” and “Lows”

- Noticeable differences in scoring across all processes
- Generally tactical and operational scored highest
- Corporate and strategic decision-making processes lagged
- Explained by the stages of evolutionary development - and consequently to some extent regional differences



Observations on Influences Driving Asset Management Outcomes

- **Utility size** – Small, medium and large
- **Utility service** – Water, wastewater or both
- **Function** – Wholesaler, retailer or vertically integrated
- **Level of regulation** – Extensive or partial
- **Structure** – Department or Corporation
- **Ownership** – Local Government or State - Owned



Observations on Influences Driving Asset Management Outcomes

- Length of time involved is important in developing asset management maturity
- This maturity has been driven by taking:
 - A business-like approach to water management
 - Driving efficiency in operations
 - Capital decision-making forced by funding limitations
 - Increased customer expectations
- External drivers such as regulation, legislation and corporatisation provide strong impetus for asset management improvement
- Vertical separation appears to provide focus for process improvement

Feedback from 2008 Project

Key objectives met.

Participants were provided with:

- Confidential improvement opportunities
- A chance to learn from and network with water industry asset management leaders from around the world
- Reports able to demonstrate level of compliance
- A unique opportunity to up skill in-house asset management professionals





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2012 IWA – WSAA Asset Management Process Benchmarking Project



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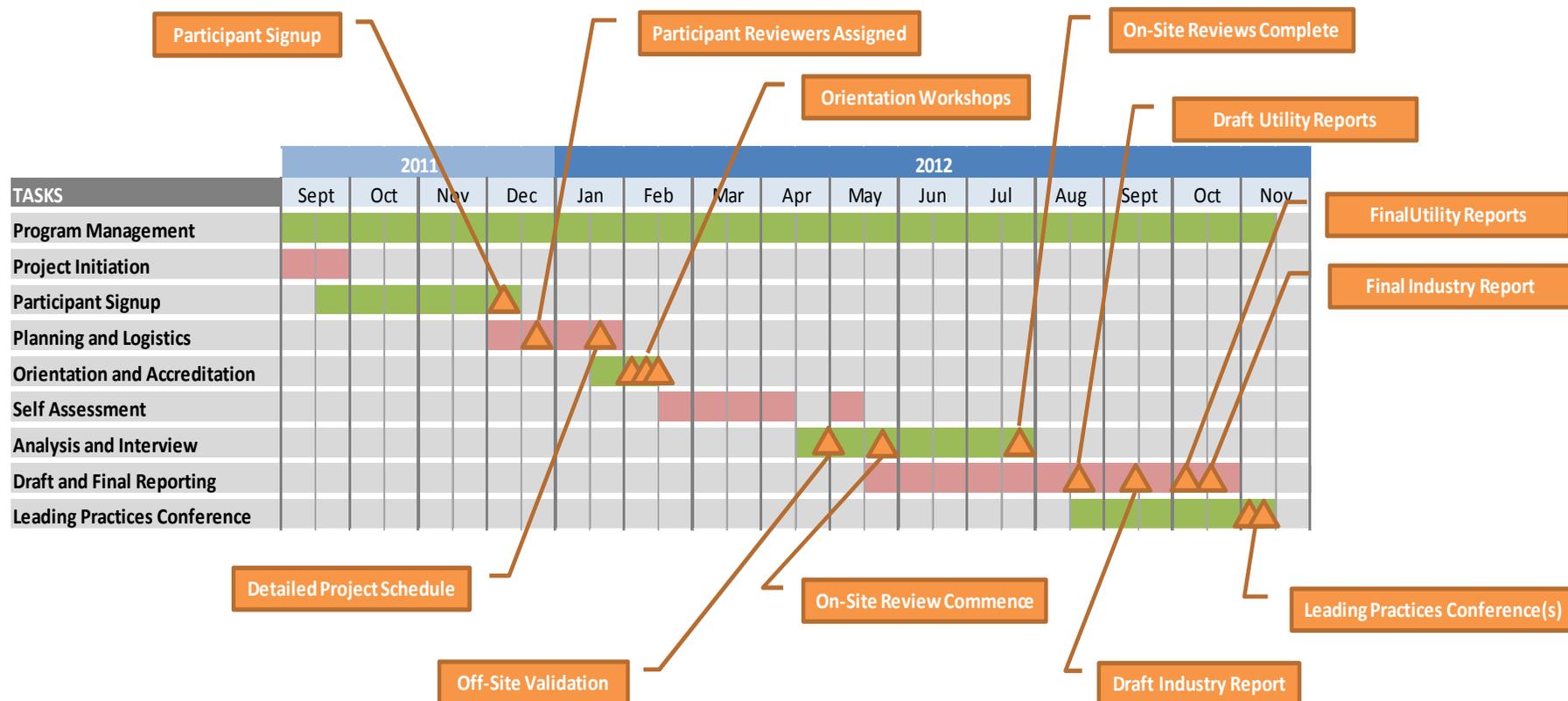
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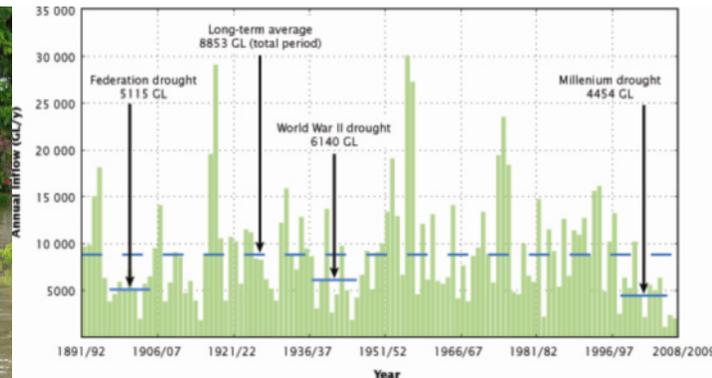
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Indicative schedule: 2012 project



EMERGING ISSUES in Asset Management in Australia

- Less focus on water scarcity; now managing for climate variability and volatility:
 - Intense events, warmer
- Brisbane 2011 flood events:
 - Inquiry will recommend on construction, operation and protection of assets
 - Impacts on water, sewerage and drainage
- Condition Assessment
 - Work still to be done n overcoming the challenge of hidden assets
 - Not just pipes – also valves, mechanical & electrical assets , etc.
- Intelligent Networks
 - Utilising real time data to actively manage and intervene
 - Seeking efficiency, cost reduction, system optimisation and extending asset life
- Security
 - Resilience of systems to climate change, natural disasters and terrorism or civil strife
- Assets increasingly include IT systems, not just civil works.





The Australian Water Association and IWA Australia National Committee
invite our Japanese water colleagues to join us from 9 – 13 September 2013



National Committee
Australia

Sydney, Australia
IWA LESAM 2013





Thank You

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