



PLANNING

“Singapore is the world leader in the application of recycled water. Its NEWater strategy has created the template for all agencies looking to introduce potable water reuse.”

Global Waters Intelligence

PLANNING

2.1 PLANNING

2.1a Describe The Process For Developing And Deploying The Organisation's Short- And Long-Term Strategic Plans. Include Key Steps And Key Participants In The Process.

LONG- AND SHORT-TERM PLANNING

To ensure an efficient, adequate and sustainable supply of water in Singapore requires both long-term and short-term planning in PUB. The Integrated Water Master Plan (IWMP) captures PUB's long-term planning for Singapore's water resources. Guided by the IWMP, PUB also adopts a four-phased Corporate Planning Process to develop its annual plans, as illustrated in Figure 2.1.1 below.

ANNUAL CORPORATE PLANNING CYCLE

Phase 1: Strategy Development

At this phase external and internal information will be collated from various sources. Key strategic issues will be identified, and senior management will decide on which of these strategic issues merit in-depth study.

Phase 2: Formulating New Strategies

Projects teams will be formed to study the identified strategic issues over a period of 2-3 months, and present their findings at the SMM Retreat. Their recommendations will be reflected into the relevant departmental plans. Departments will also use the PUB Planning Framework to guide them in formulating their plans.

Phase 3: Finalising Work Plans to Incorporate New Initiatives

The completed departmental work plans are then presented to SMM for review and prioritizing. All departmental plans will be fully integrated to achieve PUB's goals and objectives, and will be captured in the PUB's annual Corporate Plan.

Phase 4: Strategy Deployment and Communications

The finalised Corporate Plan will be disseminated to senior staff at the Quarterly Senior Staff Meetings (QSSM), after which it is communicated through SHARoN and the monthly departmental meetings. To deploy and cascade strategies, we also use the PUB Passport to help every staff to identify how his/her work supports PUB's Mission.

2.1b Summarise The Organisation's Key Strategic Objectives And Goals For The Short- And Long-Term That Arise From The Strategy Development Process.

PUB BALANCED SCORECARD & KEY PERFORMANCE INDICATORS

To maintain our global edge in the water industry, we adopt a Balanced Scorecard (BSC) approach to provide comprehensive frameworks that translate PUB's vision and

strategy into a coherent set of performance measures (In Figure 2.1.2). Using the BSC, Key Performance Indicators (KPIs) are identified to achieve the desired outcomes under our strategic objectives, which in line with PUB's Vision – "Water for All: Conserve, Value, Enjoy". Short- and long-term targets are rationalised and action plans/initiatives critical to the organisation's future growth are identified. The performance of these targets is tracked in the corporate KPI dashboard via the SMM Monthly Report. Departments refer to BSC and KPI dashboard to formulate their own internal work plans and KPIs.

2.1c How The Organisation Reviews Its Performance Relative To Plans And How It Reviews The Relevance Of Plans To Reflect Business Changes.

PUB assesses its performance relative to its short-term plans through systematic monitoring of appropriate indicators such as progress and expenditure against milestone goals and allocated budget. Apart from keeping a close tab on key plans through the monthly reports by SMM, other platforms of review can be found in Figure 2.1.3.

Forum/Platform	Review on	Review By
Policy and Planning Meeting (Weekly)	Review of policy and plans	SMM
Finance SMM (Monthly)	Review Finance matter	SMM
HR SMM (Monthly)	Review HR matter	SMM
Board Meeting (Bi-monthly)	Progress on major projects and Board's governance	Board members SMM
WPPM Meetings (Monthly)	Progress on major projects and water policies	Minister(MEWR), Perm Sec(MEWR) SMM
Annual Strategic Review Meeting (Annually)	Strategies for PUB/ MEWR family	Minister(MEWR), Perm Sec(MEWR) SMM
Corp Plan and Department Plans Presentation (Annually)	Department strategies/ KPIs	SMM Departments
Environmental Scanning (Annually)	New strategies/ risks/opportunities	SMM Departments

Figure 2.1.3: Forums/Platforms for Performance and Plans Review



Figure 2.1.1: Annual Corporate Planning Process

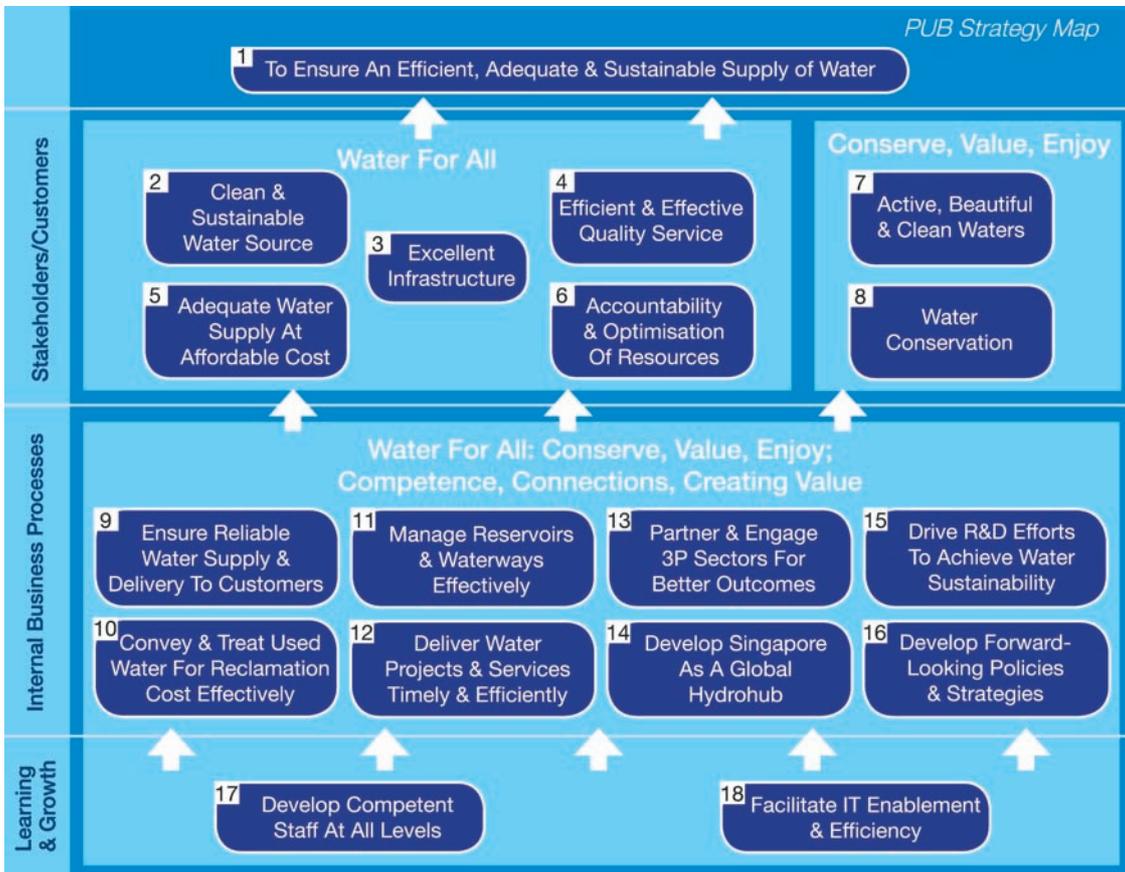


Figure 2.1.2: PUB's Strategy Map

2.1d How The Organisation Evaluates And Improves Its Strategic Planning Process.

The strategic planning process is reviewed annually by the Corporate Development Department (CDD). CDD also presents the planning process and their proposed improvements to SM at the SMM where it is scrutinised and adapted with consideration to emerging trends and issues. Platforms stated in Figure 2.1.3 will also be used for strategic planning process review when necessary. To dovetail our planning with that of our parent Ministry's, CDD also works closely with MEWR to ensure coherence in our planning process. MEWR's regular strategic planning review meetings and annual retreat are additional platforms we use to review and improve this process. In seeking continuous improvements, PUB's planning process encompasses an effective strategic learning framework through SMM. The meetings essentially serve as a team problem-solving approach whereby the SM as a team analyses and learns from performance data, and then adapts appropriate strategies to emerging conditions and issues.

New tools are added to the planning process when appropriate. For example, SWOT analysis has been part of the process since 2005. In 2006, components of Blue Ocean Strategy were included, and in 2007, components of System Thinking. Scenario planning will be incorporated in 2008 to make the planning process more robust.

In our review of past strategy development, we found that even more value could be added if the strategy planning process could be extended to more staff. As such, a new "Strategic Planning Workshop" was held in 2008, to allow brainstorming among many more employees at the corporate level. Not only did this serve as an extension of the current environmental scanning process, the proposed workshop also allowed our staff to discuss emerging trends in the water industry as well as the wider economy. This assisted our water demand projections and helped PUB to keep tabs on the latest environment and technical trends. The issues highlighted provided inputs to the formulation of strategic topics for discussion at the SM Retreat.



INFORMATION

“Singapore has a golden opportunity right now to become the water knowledge hub for the world, including focusing on applied research on water management and looking into future water problems and policies needed to solve them. It already has outstanding institutions like PUB. There is absolutely no reason why an established institution in Singapore should not become the pre-eminent global authority in the area of water policy and governance, which the world at present simply does not have.”

Asit Biswas

President

Third World Centre for Water Management

INFORMATION

3.1 MANAGEMENT OF INFORMATION

3.1a How Information Needed To Drive Planning, Day-to-day Management And Improvements To The Organisation's Performance Is Selected And Collected. List The Key Types Of Information And Describe How They Are Related To The Organisation's Performance Objectives And Goals.

Information needed to drive planning, day-to-day management and the organisation's improvement is identified and selected based on PUB's Mission, Vision and the Strategic Thrusts. Figure 3.1.1 shows how this information is managed in PUB. The key types of information required are aligned to PUB's Mission, Vision and the Strategic Thrusts.

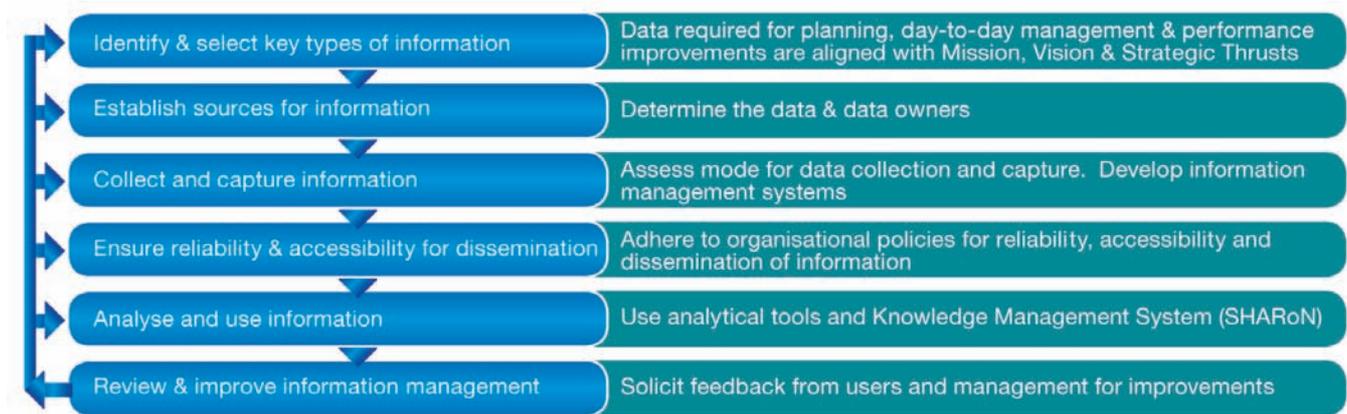


Figure 3.1.1: Information Management in PUB

3.1b How The Organisation Ensures That Information Is Reliable, Accessible And Disseminated Quickly To Employees, Suppliers/partners And Customers. Include How The Organisation Shares Information To Encourage Learning And Innovation.

RELIABILITY OF INFORMATION

PUB applies the People, Process and Control approach to ensure information reliability and authenticity, as illustrated in Figure 3.1.2.

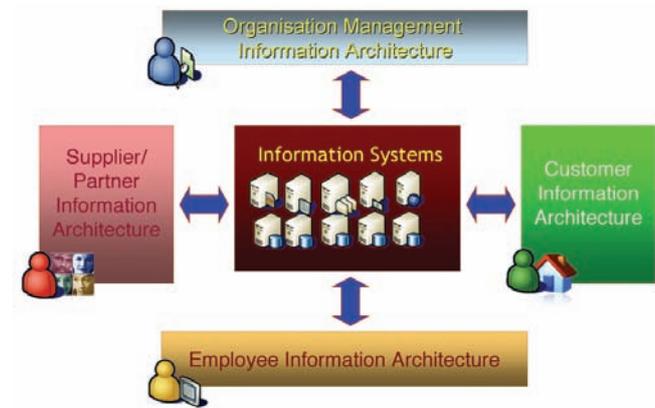


Figure 3.1.3: PUB's Information Management Architecture

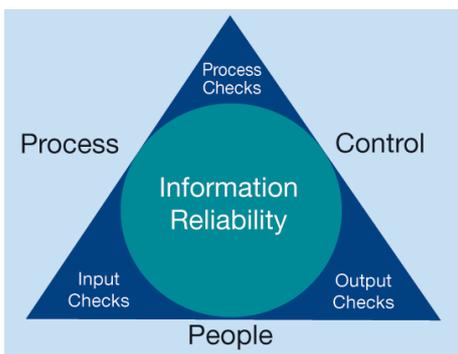


Figure 3.1.2: Approach to Information Reliability in PUB

ACCESSIBILITY & DISSEMINATION OF INFORMATION

PUB manages information from 4 stakeholder angles – Employee, Customer, Supplier/Partner and Organisation Management as depicted in Figure 3.1.3.

KNOWLEDGE MANAGEMENT – SHARoN

SHARoN, being our Knowledge Management Portal, plays a key role in linking up all 4 information architectures. It is accessible by all employees through the PUB network. Information in SHARoN is organised into categories, e.g. ExpressH₂O, NewsStand, Policies, Forms and References, Department sites, mini-sites (SQA, Union, Staff Well-Being, PUBRC), etc. We disseminate all announcements via ExpressH₂O. More mini-sites are being developed to extend our Knowledge Management.

MASS DISSEMINATION TO THE PUBLIC

PUB adopts various platforms and media to disseminate information to the general public. These include the PUB website, media releases and publications. Our sometimes unconventional approach has yielded good results. For example, PUB's annual report takes on the format of a lifestyle magazine. It received a distinction award in the 35th Creativity Annual, an international showcase for outstanding work in advertising and design. It also garnered the Most Recommended award in the Reports category of the International Water Association Marketing and Communications Awards in 2006. Other examples are PUB's quarterly street magazine, PURE, and a well-received infotainment game show, "The ABCs of Water". Figure 3.1.4 shows the various platforms used in PUB to improve the accessibility & dissemination of information.

Target Group	IT Based Platforms	Non-IT Based Platforms
Employees & Union	<p>SHARoN – our Knowledge Management</p> <ul style="list-style-type: none"> ExpressH₂O Innovation Centre PUB Annual Reports Ask Senior Management <p>Others</p> <ul style="list-style-type: none"> Email 	<p>Forums / Networking Channels</p> <ul style="list-style-type: none"> Annual Supervisory Staff Meeting (ASM) Corporate Familiarisation Programme \$10K Ideas facilitation sessions Spinovator Why? Not Sessions I-Deas, I-Circles Department Dialogues Ask HR <p>Publications</p> <ul style="list-style-type: none"> Press releases PUB Annual Report PURE Magazine Milieu Magazine Posters
Customers	<p>Websites</p> <ul style="list-style-type: none"> PUB SP Services PUBOne Call Centre eCitizen One Stop Reporting Centre (ORC) 10-Litres Challenge ABC Waters Water Efficiency Labelling Scheme Private Sewer Rehabilitation 	<p>Forums / Networking channels</p> <ul style="list-style-type: none"> Meeting with large and NEWater customers Roadshows School visits PUBOne Call Centre One Stop Reporting Centre (ORC) – by phone Exhibitions Brochures Water Wally shows Waterworks@Singapore Science Centre Door-to-door visits <p>Publications</p> <ul style="list-style-type: none"> PUB Annual Report PURE Magazine Milieu Magazine
Suppliers & Partners	<p>Websites</p> <ul style="list-style-type: none"> PUB GeBIZ Singapore International Water Week (SIWW) 	<p>Forums / Networking channels</p> <ul style="list-style-type: none"> Conferences & seminars PUBLinks Safety Day Tender briefings Site showround <p>Publications</p> <ul style="list-style-type: none"> PUB Annual Report PURE Magazine Milieu Magazine

Figure 3.1.4: Platforms for Disseminating Information

SHARING OF INFORMATION THAT ENCOURAGES INNOVATION & LEARNING

PUB's emphasis on innovation and learning has enabled us to achieve our mission of securing an adequate supply of water at affordable cost. Innovation is one of PUB's corporate values (VOICE). To drive innovation and learning, PUB has put in place various schemes such as I-Circle, I-Deas, \$10K Ideas, etc. to promote innovation and reward the staff.

Our continuous emphasis on innovation and learning has enabled us to win many local and international awards, including the 2006 Innovation Excellence Award. To drive innovation effectively, we also need to actively share information with our staff, our customers, our suppliers and partners. The communication channels we use to share information and to encourage innovation and learning are shown in Figure 3.1.4.

3.1c How Information Is Analysed And Used To Support Organisational Planning And Review.

PUB handles large volumes of data. Critical operational data is captured in information systems serving the various functional areas. Figure 3.1.5 shows the methodologies and tools used for analysis, planning and review.

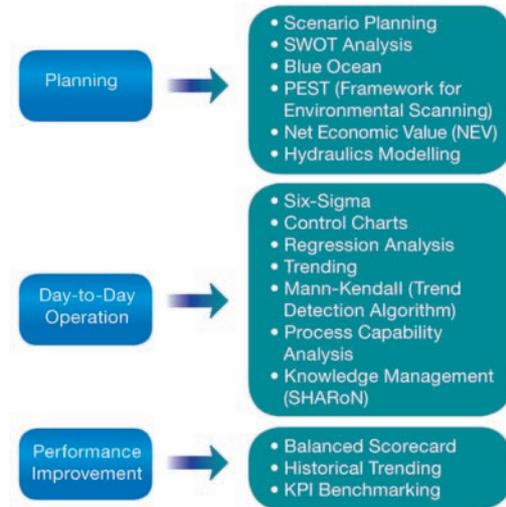


Figure 3.1.5: Methodologies & Tools Used for Planning & Review

3.1d How The Organisation Evaluates And Improves Its Management Of Information.

PUB adopts both the top-down and bottom-up approaches in reviewing the management of information. Different forums have been set up to review the information needs, systems and processes.

Some examples of reviews and improvement include the implementation of:

- Integrated Water Management System as PUB's business intelligence platform for water quality management.
- SHARoN as PUB Knowledge Management Portal for easy access and dissemination of information.

3.2 COMPARISONS AND BENCHMARKING

3.2a How Comparative And Benchmarking Information Is Selected To Improve The Organisation's Performance.

In 2006, Global Water Intelligence named PUB the Water Agency of the Year. Subsequently, PUB received the Stockholm Industry Water Award 2007, which is the water industry's equivalent of the Nobel Prize. Even though PUB has achieved international recognition for its holistic water management, PUB continues to search for and incorporate best practices to maintain its world-class performance.

PUB uses benchmarking and comparative studies as tools to compare our performance with other similar organisations, to identify areas for improvement, and to learn better practices from successful organisations. Benchmarking projects are aligned to PUB's Mission, Vision and Strategic Thrusts.

PUB uses the PAIR Process to conduct benchmarking and comparative studies, as shown in Figure 3.2.1.



Figure 3.2.1: PAIR Process for Benchmarking and Comparative Studies

3.2b How Comparative And Benchmarking Information Is Used To Improve Processes And To Set Stretched Goals And/or Encourage Breakthrough Improvements. Include A Summary Of Comparative And Benchmarking Activities And Studies Done.

PUB conducts comparative studies and scans the internet regularly to compare our performance indicators against other water utilities around the world. Some of recent comparative studies are shown in Figure 3.2.2.

Best practices identified from the benchmarking studies are used to refine work processes and increase PUB’s operational performance. Comparative data are used as inputs for reviewing operational KPIs. Figure 3.2.3 shows some of the benchmarking projects conducted by PUB and their improvements.

3.2c How The Organisation Evaluates And Improves The Overall Process Of Selecting And Using Comparative And Benchmarking Information.

The PAIR Process serves as a guide for the study teams to follow when carrying out their study activities. At the end of the study exercise, each team meets with Corporate Management Division (CMD) under Corporate Development Department (CDD). These meetings allow CMD to hear directly from the team about issues encountered during actual application of the PAIR Process. This allows CMD to improve the PAIR Process. The teams also submit trip reports to the HR Department for documentation purposes.

Comparative Studies	Outcome
No. of Leaks per 100 km of Water Mains	PUB has the lowest no. of leaks in comparison with overseas water companies
% of Unaccounted for Water	PUB’s result was among the lowest compared with overseas water companies
No. of Sewerage Service Disruptions per 1,000 km of sewers	PUB has the lowest no. of sewerage service disruptions when compared with 4 other water companies

Figure 3.2.2: Some of the Comparative Studies Conducted

Benchmark Project	Purpose of the study	Improvements
Water Reclamation (NEWater) Study	Determine suitability of NEWater to supplement Singapore’s water supply	<ul style="list-style-type: none"> Achieved production of high quality water Received wide public acceptance of NEWater
Water Efficiency Programmes	Study to mitigate increase in water demand	<ul style="list-style-type: none"> Implemented 10 Litre Challenge initiative (2006) Reduced per capita consumption from 162 l/day in 2004 to 157 l/day in 2007 PUB Target – 160 l/day
ABC Waters Projects	Study to learn principles, design and modelling of bio-retention systems and wetlands	<ul style="list-style-type: none"> Incorporated ABC (Active, Beautiful, Clean) concept in the Alexandra Canal and Lower Seletar Reservoir

Figure 3.2.3: Some of the Benchmarking Studies Conducted