

**NLB Innovation Award 2017- Executive Summary**

NLB’s journey for the Innovation Award by employing the Business Excellence framework. Listed below are the summarized details on each of the categories linking to the framework.

**Category 1: Leadership**

Senior Management reviews the NLB’s mission, vision, strategic thrusts and values regularly to ensure that NLB stays relevant and effective amidst the changing external environment and the changing needs of the nation.

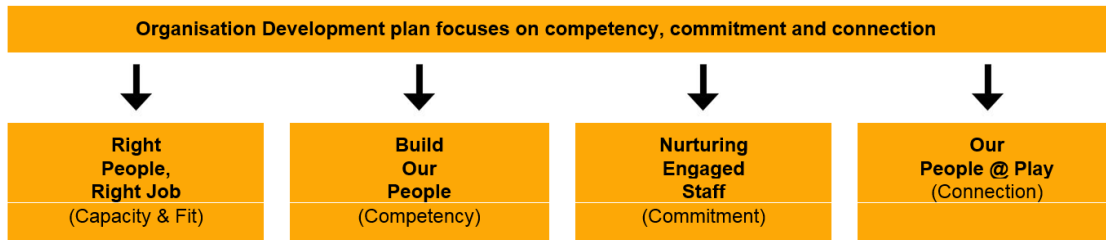


NLB Senior Management actively and frequently engages staff, customers, partners, suppliers and stakeholders through a variety of channels to communicate and reinforce NLB’s Mission, Vision and Values.

Internal	External
Employees	Customers Partners Suppliers Donors Friends of The Library (Volunteers)

A thriving innovation culture must first be driven from the top. Senior leaders in NLB are entrusted with the important role of championing innovation by inspiring staff to have an innovative mind-set; and be bold in trying out new, even radical ideas. The success of NLB Senior Leaders in charting and leading NLB along the innovation path is evident from the list of innovative services and projects that were developed and implemented from 2009-2015. These innovative services and products, cutting across the different segments of NLB, demonstrated NLB’s Senior Management relentless pursuit for innovation and breakthroughs; so as to maximise limited resources to deliver better library and achieve greater organisational efficiency.

NLB’s mission of making knowledge come alive, sparking imagination and creating possibilities is the result of the leadership’s consistent emphasis on innovation and quality of service delivery. Therefore, it is the desire of the NLB management team to foster a culture that enables learning, innovation and achievements of its strategic goals. At NLB, the Organisational Development (OD) team that facilitates culture is built following this framework below with focus on competency development, commitment of staff to NLB’s outcomes as well as building a strong connection between the staff to NLB’s outcomes as well as building a strong connection between the staff and the organisation’s outcomes.



This framework and its key focus areas helps to create an environment of trust between the leaders and the employees, allowing leaders to effectively connect committed employees, who are equipped with the right competencies to ultimately help NLB achieve its strategic goals.

NLB has a strong focus on innovation. In order for innovation to thrive, NLB recognises that the organisation has to take a deliberate, disciplined and systematic approach towards meeting this goal. To this end, critical building blocks for innovation success which are enduring and sustainable are put in place. The building blocks comprise 4 primary building blocks - 'Leadership', 'People', 'Strategy', and 'Processes', and 4 foundational building blocks - 'Culture and Communications', 'Patrons & Partners', 'Ideation and Experimentation', and 'Knowledge and Competency'.

Senior management takes a keen interest in nurturing innovation and development in NLB, constantly challenging the norms, encouraging staff to test new ideas, learn from mistakes, and drive cutting edge initiatives. They play key roles in guiding and encouraging NLB project teams to develop new products and services for its customers. Training programmes on innovation are held regularly to enhance and sharpen staff's ability to innovate. NLB takes a proactive approach in generating and gathering ideas by focusing on processes to generate ideas internally through staff and externally through customers, suppliers and partners. Ideas that flow from staff and other sources like customers are developed into service concepts and evaluated at tactical platforms such as the Senior Management Committee to ensure the desired outcomes are aligned to NLB's strategic directions. Other evaluation criteria include:

- Innovation/value creation;
- Impact/benefits;
- Total savings generated;
- Risk/practicality before being accepted for implementation

The Corporate Social Responsibility (CSR) framework is based on the 3Ps of People (Social), Planet (Environment) and Profit (Governance). A WEALTH Committee, is chaired and co-chaired by the Chief Executive Officer and Deputy Chief Executive respectively, with members drawn from various strategic business units and corporate services to manage and execute the CSR initiatives, Corporate Volunteerism Programmes (CVP), Community Engagement and Partnership (Friends of the Library & Archives) programmes and activities in the entire network of NLB (public libraries, national library and archives). WEALTH Champions and representatives from individual libraries, business units and corporate services are appointed to assist in coordinating and encouraging their colleagues to participate in various programs and activities. Staff-volunteer recruitment drives are also carried out periodically to garner support and participation by staff.

## **Category 2: Customers**

At NLB, customers are at the core of what we provide and greater engagement and collaboration with them have resulted in new innovations in the recent years.

In line with NLB's vision, mission and shared values, NLB has a strategic service intent. This guides NLB's segmentation of its customers and how the collection, services and programmes are developed and enhanced to serve their different and growing needs. It focuses on understanding customers by targeting their needs, delighting them with the services provided, having a wide reach through partnerships and collaborations and measuring satisfaction and outcomes, to identify areas for enhancement. The customer centric management framework ensures a commitment to:

1. Deliver our strategic service intent that supports NLB's vision and mission, by being customer-centric, empathetic and innovative in our service delivery and development of services and products.

2. Deal well with problems and queries by implementing robust customer-focused systems and processes, enabled by innovation applications of technology, keeping in pace with the digital trends, having a clear understanding of our customers' needs and their profiles. Our focus is on continuous service innovations, in response to customer feedback through the various channels and engaging with customers proactively, in anticipation of their needs.

3. Provide a personal touch, anchored on NLB's shared value of commitment to service excellence, which is also aligned with the Public Service Division's (PSD) Service Principles, which guide the Singapore Public Service. (These principles are citizen-centricity, mutual courtesy and respect and shared responsibility for public good, based on the foundation of CARE (Courtesy, Accessibility, Responsiveness and Effectiveness). This is strengthened with the commitment of the leadership to be open to customer feedback and provide total support to staff in their service delivery, which reinforces their confidence.

To better understand and collaborate with our customers, NLB has adopted an age-based segmentation approach, to determine user profile and anticipate current and future requirements, corresponding to the significant stages in one's life.

This segmentation also aligns with NLB's long term strategies and the Smart Library concept that includes building a next generation library that is inspirational and community-supported for learning and knowledge creation.

**Alignment between Customer Segments and Customer Strategy.**

Customer Segments	Current Customer Requirements (based on the Library 2010 Masterplan)	Tools used to understand the requirements	Future Customer Requirements
Pre-schoolers (0-6 years old) Children (7-12 years old) Young people (13-19 years old)	Self-Discovery <ul style="list-style-type: none"> <li>Curiosity</li> <li>Joy of Discovery</li> <li>Love of Learning</li> </ul>	<ul style="list-style-type: none"> <li>Customer feedback channels</li> <li>Quality Service Manager (QSM)</li> <li>Customer dialogue sessions</li> <li>NLB Customer Satisfaction Index (CSI)</li> <li>Customer Satisfaction Index of Singapore (CSISG)</li> <li>Mystery audits</li> <li>Social media channels</li> <li>Trends analysis</li> <li>Learning visits, both locally and overseas</li> <li>Best Practices learning from other organisations</li> <li>Benchmarking</li> <li>Data Analytics</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced library spaces, in response to rising population and changing demographics.</li> <li>Paradigm shift in library spaces that inspire new ways of learning.</li> <li>Engaging customers in the digital realm, through their electronic devices.</li> <li>New approaches to library design that can deliver a higher quality experience to develop and sustain a reading habit.</li> <li>Supporting information and knowledge needs of the different customer segments, to sustain Singapore's global competitiveness.</li> </ul>
Adults (20-59 years old)	Self-Fulfilment <ul style="list-style-type: none"> <li>Personal Growth</li> <li>Professional &amp; Career Enhancement</li> </ul>		
Seniors (60 years and above) The Disadvantaged	Self-Reliance <ul style="list-style-type: none"> <li>Mental Stimulation</li> <li>Social Engagement &amp; Inclusion</li> <li>Productive Leisure</li> </ul>		
Researchers, business & government	Competitive Edge <ul style="list-style-type: none"> <li>Research &amp; Scholarship</li> <li>Enhance Competitiveness</li> <li>On-time information and intelligence</li> </ul>		

Customer requirements and expectations are addressed and incorporated into NLB's strategic plans at various levels – strategic, group and divisional and project level.

NLB has implemented a framework that puts customers at the core of service delivery and development of new services and enhancing existing services. Through the various channels of engagement, feedback and inputs are sought from our customers and partners. These feedback and inputs are

managed both at a macro and micro level. At a micro level, in-depth investigation is carried out to determine the causes for an incident and to glean the learning points. Subsequently, a personalised response is formulated to the customer to close the loop. At the macro level, feedback is collated and analysed to determine the trends. Besides sharing the feedback with respective divisions for their learning and to prevent recurrence of incidents, it is also included in the planning for the service training and used to generate ideas for enhancements.

Increasingly, NLB with its progressive approach and mindset, has incorporated design thinking in its development of new libraries, such as the library@orchard, that opened in October 2014.

Being a customer-centric organisation, NLB also measures the feedback received closely through indicators such as the Compliment:Complaint ratio, Customer Satisfaction Index and Mystery audits. External indicators that NLB is included in are the Customer Satisfaction Index of Singapore (CSISG) and the mystery audits conducted by the Public Service Division.

NLB's co-creation journey began in 2004 with the VAT (Verging All Teens) in Jurong Regional Library and has continued with several engagement activities such as Meet the Customer sessions, engaging users when renovating a library, designing niche library spaces such as the library@Chinatown, My TreeHouse at Central Public Library and involving customers when the Pasir Ris Public Library closed for renovations in Mar 2015.

To resolve customer feedback effectively, NLB has implemented a process across all touch points that uses a CRM system which facilitates responding to the customer, tracking the responses and collating reports.

Customers can seek assistance through these easy to access touch points – counters, email, hotline, website, social media and transaction machines that facilitate self-service and reduce the time taken for transactions. (ekiosks, borrowing stations and book drops).

Employees are empowered through training and development. In addition to attending service-related courses by the Civil Service College, NLB works on providing customised training to its staff. These courses are customised with the scenarios that are encountered in the library so that both new and existing staff can discuss the specific situations they face in the library. To empower staff and build their resilience, there is strong psychological support from Management, where issues can be surfaced for divisions to review.

NLB aligns its service standards with the PS21 Minimum Service Standards. These service standards were implemented from 2008 and revised in 2012 and with this, the aim is to ensure a consistent level of service delivery across all government agencies, thus building customer's trust. The service standards apply across all touch points and channels (hotline, email and counter services).

### **Category 3: Strategy**

The establishment of the National Library Board (NLB) on 1 September 1995 marked a major milestone in the transformation of libraries in Singapore.

In the early 1990s, discussions about the role of the public library system in the Information Age culminated in a landmark study by the Library 2000 Review Committee, resulting in the formation of NLB, a new statutory board. In a short span of six years (1995 to 2001) from establishment, NLB successfully transformed the public library system into a network of libraries conveniently accessible to the public and customised to satisfy a diversity of needs.

As a statutory board under the Ministry of Communications and Information (MCI), NLB is guided by MCI's statement of strategy – to connect people to community, government, and opportunity, enabled by trustworthy infrastructure and technology.

NLB's strategies and deliverable outcomes are positioned fully under "connecting people to community". In line with this, NLB's vision is to create "Readers for Life, Learning Communities, Knowledgeable Nation." With a mission to "make knowledge come alive, spark imagination and create possibilities", the envisaged outcome is to create Learning Communities across Singapore's society.



## MCI Strategy Map

The merging of National Archives of Singapore (NAS) in 2012 marked a major milestone in the transformation of libraries and archives in Singapore as the National Library and Archives fulfils an important public service role for the community at large as custodian of knowledge and information. It seeks to:

### Libraries

- Establish and maintain libraries, and provide library information services;
- Promote reading and encourage learning;
- Acquire and maintain a comprehensive collection of print and non-print materials;
- Provide advisory and consultancy services on library and information services;
- Maintain a national union catalogue and a national bibliography;
- Advise the government on national needs and policies in matters relating to publicly-funded libraries and information services.

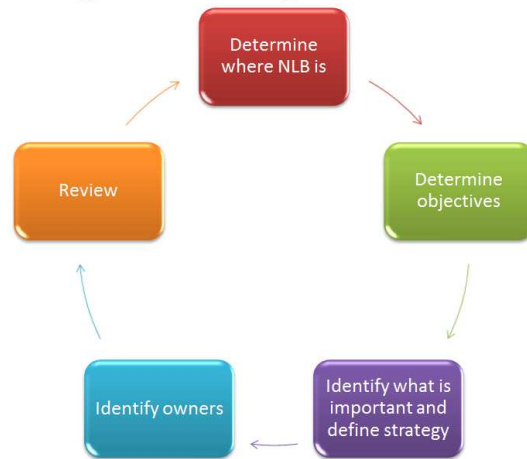
### NAS

- Advise public agencies on recordkeeping standard practices, take custody of records transferred from public agencies and act as the official keeper;
- Acquire through deposit, audio visual recordings that have been broadcasted or made public in Singapore;
- Collect oral history interviews on the history of Singapore;
- Acquire, by purchase, bequest, donations or otherwise, any document, book or other material which is or is likely to be of national or historical significance;
- Make known information concerning archives by any means, including publications, exhibitions and heritage promotional activities.

These roles meet our parent ministry's outcomes to help Singaporeans embrace a learning culture.

The strategic development is guided by a strategic planning process. For NLB to be nimble in to responding to emerging issues in today's world, the strategic planning process is integral to the organisation. This process is illustrated in Figure below.

## Strategic Planning Process Model



NLB also uses data analytics to enable proactive decision making; in other words, switching from reacting to situations to anticipating them. For example, according to the NLB's Customers' Satisfaction Survey, the key gaps identified for priority action in public libraries are in collection, programmes and exhibitions, and the service standards of NLB staff.

NLB has harnessed data analytics to ensure that it meets the outcomes it wants to achieve by using existing data to understand library users and their borrowing behaviour. In 2012, NLB collaborated with the Singapore Land Authority (SLA), an expert on geo-spatial analytics, to generate useful insights about its library users. A useful application from this system is insights on library catchments, indicating the distance that customers are generally willing to travel. This facilitates planning of library revamps and new libraries.

In addition, NLB has commissioned a patron behaviour study that dissects the demographic of patrons, and sheds light on what they do in public libraries and how much time is devoted for each activity. NLB has also commissioned a REACH Survey to understand the extent of NLB's reach to users via various touchpoints such as borrowing books, digital engagement, participation in programmes and volunteerism. The REACH Survey also sought to understand the reasons why non-users choose not to use NLB's services, as this would allow NLB to further enhance and improve services to improve visitorship.

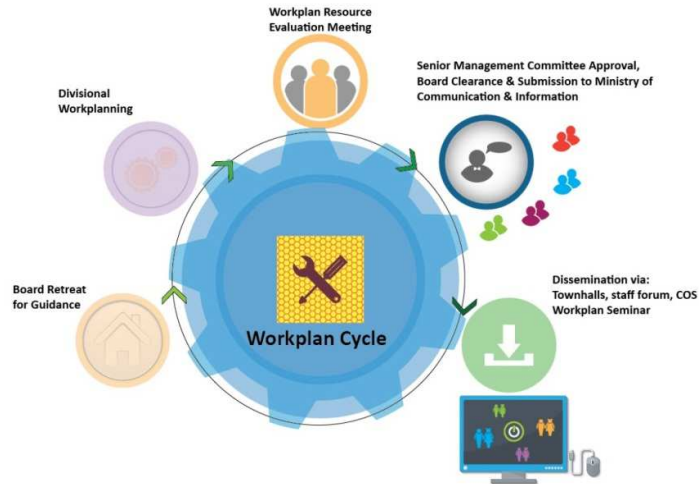
### Annual Workplan Cycle & Review

The NLB is guided by its Ministry's topline outcome and its Board's guidance in identifying key deliverables for its annual Workplan Cycle. The cycle begins with the NLB Board Retreat where the past year's achievements are reviewed and challenges in the next few years are identified. In doing so, the NLB and Board can react more quickly to changes in the environment, and be more agile and proactive in anticipating trends and changes. For FY15, the Board Retreat was held in January and a Board Guidance was issued focusing on 4 key priorities of curating enriching Singapore content; delivering effective services; building libraries and archives of the future; and nurturing high performance

With guidance from Board, divisions proceed with divisional workplanning (including action plans, operational plans and marketing plans) for the next financial year in consultation with the Workplan Resource Evaluation Panel (WREC). The purpose of the panel, which was implemented in 2015, is to review past year achievements, prioritise initiatives, scrutinise purpose and sustainability of the workplan, manpower optimisation, and determine the overall resources required. All the workplans are then consolidated and upon approval by NLB's Senior Management Committee, submitted to MCI. This process ensures greater accountability to NLB's parent ministry, the NLB Board and various Board Advisory Committees. Subsequently, communication of the workplans for the upcoming financial year

takes place at various platforms such as NLB's townhall, Committee of Supply debate and MCI workplan seminar.

### Overview of Workplan Cycle



### Workplan Resource Evaluation Panel

The WREC is chaired by NLB's Chief Executive Officer (CE), Deputy Chief Executive (DCE), and Assistant Chief Executive/Corporate (ACE/Corp) with directors from the People Management and Development (PMD), and Strategic Planning and Research (SPR) sitting in. The director for Public Facilities Management (PFM) also sits in when workplans that cover physical infrastructure items are discussed.

This process allows directors overseeing resources to determine the overall resourcing required as divisions are required to put forth a business case and the resourcing required. They are also required to present the rationale and exit plans for the operations and programmes to be scaled down for the coming financial year. Divisions have to develop the budget and manpower plans supporting their operations and programmes for this discussion with the panel.

Stakeholder engagement, both external and internal, is crucial to the success of NLB's work. Engagement builds better relationships within the societies in which NLB operates, resulting in improved business planning and performance. NLB's external stakeholders include other government agencies, customers, volunteers, suppliers and vendors while internal stakeholders include our Board of Directors, Senior Management and staff at all levels.

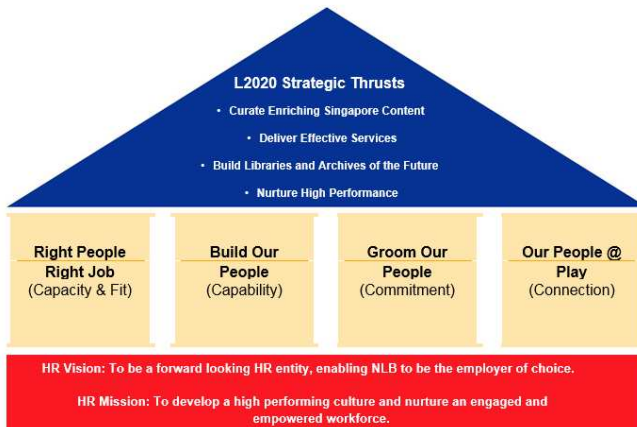
NLB constantly seeks to engage the public to create a greater sense of ownership by allowing them to voice their views and contribute their skill, time and expertise in the operation and development of our libraries.

### Category 4: People

The NLB has 4 key thrusts, supported by four units to ensure that it is on a strong footing to meet the people challenges and operational demands of NLB. The four units are:

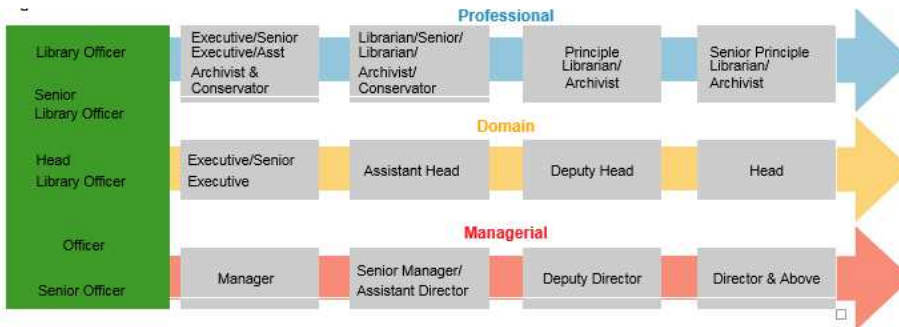
- a) Talent Acquisition & Organisational Development with a focus on HR business partnering, manpower planning & recruitment and organisation development & excellence;
- b) Rewards & Talent retention with a focus on compensation & benefits, career development & organisational design;
- c) Talent Development with a focus on performance management, scholarship & training awards and learning & development and;
- d) Leadership Development with a focus on talent management & succession planning

## Human Resource Strategy



The current NLB professional tracks as seen below have its own standardised designations. Staff will be designated based on the matric depending on their professional track.

## NLB Professional Tracks



NLB adopts a three-pronged approach for establishing a conducive work environment as shown in the figure below.

## Work Life Strategy

Work-Life Strategy		
To create a work environment that enhances customer service, effective employee development and high employee satisfaction		
Mechanisms/Programmes		
<b>Work-Life Balance</b> <ul style="list-style-type: none"> <li>• Flexi-work arrangement</li> <li>• Step-down Scheme</li> <li>• Staggered working hours</li> <li>• Mobile Workforce programme</li> <li>• Study Leave, Sick Leave without MC, Reservist Leave, Eldercare Leave, Birthday Off</li> <li>• Back-to-School with Mom and Dad Time-off, Eat with Family Day</li> <li>• Health Facilitators</li> <li>• Unrecorded leave for Corporate Volunteerism Programmes</li> <li>• Work-Life Advocate</li> <li>• Gym, Pantry, Cafeteria</li> </ul>	<b>Workplace Health Programmes (WEALTH)</b> <ul style="list-style-type: none"> <li>• Flexi-Benefits</li> <li>• Corporate Membership Cards</li> <li>• Corporate Discounts</li> <li>• Corporate Events, e.g. Movie nights, Local shopping tours</li> <li>• Regular Evening Classes</li> <li>• Annual Health Screening (Basic and Comprehensive)</li> <li>• One Learning Hour</li> <li>• Sports Interest Groups</li> <li>• Family Day/ Dinner &amp; Dance/ National Day Fireworks Viewing</li> <li>• Blood Donation Drives</li> </ul>	<b>Workplace Safety</b> <ul style="list-style-type: none"> <li>• Appropriate Equipment provided to staff</li> <li>• Pleasant and Conducive Work Environment</li> <li>• Complied with Statutory Requirements on Employees' Safety</li> <li>• Work Injury Compensation</li> <li>• Crisis Management</li> </ul>

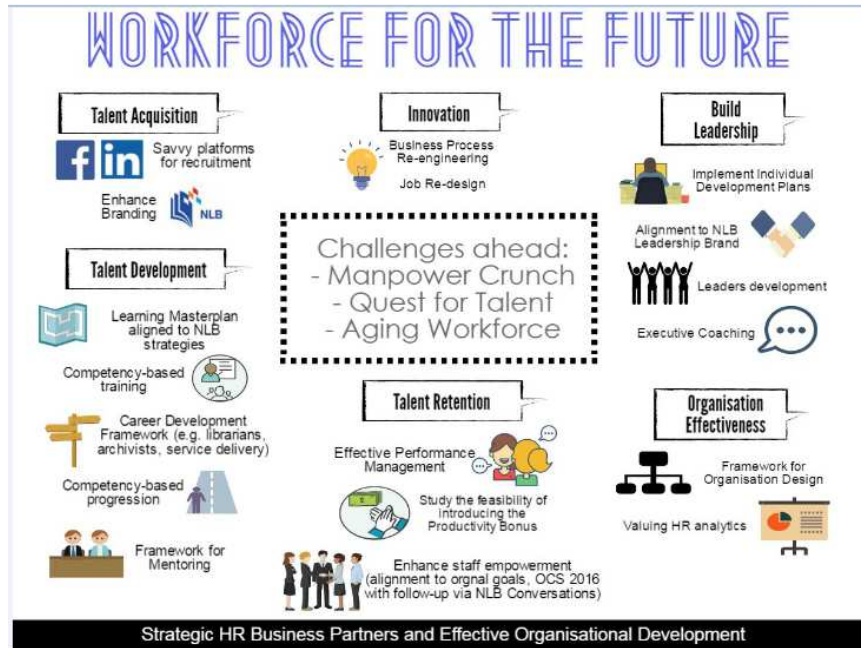
NLB has an integrated employee involvement framework that ensures that the employee involvement strategies and mechanisms are aligned and contributes to organisation outcomes and goals.



## Integrated Employee Involvement Framework

Mechanisms		
Innovation	Teamwork & Team Learning	Communication & Sharing
<ul style="list-style-type: none"> <li>Black Box Competition</li> <li>Staff Suggestion Scheme</li> <li>MCI Innovation Fiesta</li> <li>PS21 EXCEL Convention</li> </ul>	<ul style="list-style-type: none"> <li>Work Improvement Teams (WITs)</li> <li>Cross Functional Teams</li> <li>Communities of Practice</li> <li>One Learning Hour</li> <li>Sports Interest Groups</li> <li>NLB Conversation</li> <li>Retreats</li> <li>Performance Appraisal Discussions</li> </ul>	<ul style="list-style-type: none"> <li>Annual Staff Forum</li> <li>Staff Surveys</li> <li>CE Dialogues &amp; CE Walkabouts (Townhalls, Breakfast, Dialogues with different managerial levels)</li> <li>NLB Conversation</li> <li>E-forums/ Staff Intranet</li> <li>Performance Appraisal Discussions</li> <li>CE Connect</li> <li>PMD Insight</li> <li>Staff Engagement Talks, Divisional Roadshows</li> <li>Induction/ Orientation, Observance Ceremonies</li> <li>Conversion to Permanent Ceremony</li> <li>Guest Speaker Series</li> <li>Code of Conduct, Whistle-blowing</li> <li>Exit Interviews</li> </ul>

Below is a graphical representation of NLB's plans to overcome the challenges ahead.



### Category 5: Processes

From quick prototyping to innovation competitions and dabbling in Open Innovation, NLB has embraced a 'dare to try' spirit in its approach to the new and unknown. NLB's innovation goal is to achieve innovation excellence in delivering customer service by nurturing innovative capability, encouraging creativity and inspiring staff to think out of the box. Starting with being the world's first library to deploy Radio Frequency Identification (RFID) technology that enabled self-service borrowing and returning, NLB continues to leverage service innovation in making library services more convenient, accessible, and useful.

Innovation is an indispensable part of NLB's strategy to meet the overarching goal of promoting reading, knowledge, information literacy and a keen sense of national history amongst its patrons. Through the years, every long to mid-term corporate plan has consciously strived to leverage on innovation to enable NLB to push the limits and break new ground – the latest being the Library of the Future Masterplan (LoTF), the National Library – National Archives Masterplan and the Digital Strategy Plan.

To optimise the opportunity for an idea to be realised in NLB, the end-to-end maturation journey of an idea is aided by various means and channels in NLB. The journey starts with planning, followed by Business Cases, Project management and finally, Post Implementation Review.

Innovation can, and should happen with everyone at every level of the organisation - from the Chief Executive Officer to the last staff member. NLB recognises that the best insights and ideas can come

from anyone, and anywhere. Great ideas are ultimately spawned by people within NLB and those whom NLB interacts very closely with - such as partners, peers, patrons, and suppliers. For this reason, NLB ensures that the network of thinkers and ideators within and beyond NLB are actively identified and engaged to form part of a synergistic, collaborative and collegial ecosystem for innovation.

An example of engaging and co-creating with patrons is library@orchard, which was re-opened in November 2014. NLB and Singapore Polytechnic (SP) collaborated in applying Design Thinking, a user-focused approach to design the new library@orchard. This is the NLB's first library to use this approach where the design thinking team from NLB-Singapore Polytechnic had consulted members of the public on what they wished to see in their new library@ orchard. The teams conducted over 100 interviews with Orchard road 'regulars', and based on the information gathered developed several prototypes of ideas of space design and shared them through an exhibition. The public could vote for their favourites and give suggestions to shape the library. Two of these prototypes were eventually implemented in the library – the Book Tree and the Cocoons. library@orchard went on to win the President's Design award (Design of the year) 2015.

Opened on 31 January 2013, library@chinatown is Singapore's first public library that was co-developed with and managed by the community, for the community. Through the library@chinatown, NLB sought to invert the people-institution relationship that it had built in the previous decade by sharing some control over the development and management of a library, and took on a more significant role as a facilitator of the community. Hence, this unique concept took shape and anchored itself onto two key community foundations – philanthropy and sponsorship, and partnerships and engagement.

When testing out technology-based ideas, NLB employs a method of rapid prototyping called Proof-of-Concept1 (PoC), NLB is able to assess the viability of an idea by developing small-scale projects, while maximizing time and resources. This has allowed teams to test out many new ideas and technologies while keeping any risks to a minimum. Importantly, this enables project teams to demonstrate their ideas which would otherwise have remained a concept on paper, and communicate the possibilities to stakeholders.

Experimentation (whether in collaboration with partners or as an enterprise effort) is strongly advocated and supported in the form of funding from both internal and external sources, sponsorships and even time-off from the staff's main work so that they can focus on working on their ideas. While calculated risk-taking is encouraged, NLB also ensures that the associated risks are identified and mitigated throughout the innovation lifecycle.

One breakthrough is a first-in-the world one-step automatic "disarming" of the security code programmed in Radio Frequency Identification (RFID) tags embedded in library items which had been checked out via mobile devices, through the NLB Mobile app. Other examples include the auto-sorter and reservation lockers, which were new technologies that were tested thoroughly at one site before being recommended for further implementation.

### NLB's Breakthrough Innovations



NLB integrates processes into management processes, key processes and key support processes to ensure products and services meet customer and operational requirements.

NLB identifies and selects our key suppliers and partners based on their strategic fit to our mission and vision. We ensure that our suppliers and partners meet our requirements through the following processes:

- Clear specifications of NLB's requirements in tender library documents and carrying out a comprehensive and rigorous evaluation to ensure that suitable working partners are appointed.
- Clarifying NLB's plans and requirements through first contact meetings and subsequent coordination meetings;
- Reviewing the progress and results of the partnership (review of achievements, concern areas, further collaboration/new items), and following up on actions needed.

The four most important categories of suppliers that have a significant impact on NLB's operations are:

- (a) collection materials suppliers;
- (b) IT services providers;
- (c) building maintenance services providers;
- (d) logistics services providers;

NLB actively establishes partnerships with external establishments to bring mutual benefits through cooperation and collaboration, leveraging partner resources to achieve its organisational goals. Key partnership programmes involve overseas libraries, other government agencies and non-profit organisations as well as private organisations and the communities.

Partners are identified mainly through networking channels and referrals. The channels include library-related conferences and seminars, introductions by various like-minded agencies like government agencies or other non-profit organisations. The selection of potential partners is based on the consideration that their intentions are in line with NLB's mission and objectives and bring value to NLB's customers.

NLB's co-creation efforts are built upon 2 thrusts: the power of collective wisdom and the need to be relevant.

Between 2004 and 2015, NLB has opened/upgraded library spaces, and libraries, in close collaboration with public agencies, institutions and private sectors, and largely driven by public participation. The Teens Library Space at Jurong Regional Library called "Verging All Teens" (VAT), the first world's green library for children: "My Tree House" at Central Public Library, the old and new library@orchard, library@chinatown, the Silver Infocomm Junction at Woodlands Regional Library and the Smart Work Centres at Jurong Regional Library, Toa Payoh Public Library and Geylang Public Library.

#### **Category 6: Knowledge Management**

To manage information and knowledge, NLB has developed a responsible and secure knowledge management system to support the quality of service and development of innovation. This is supported by a comprehensive Knowledge Management Policy, which is an overall statement of policy for how NLB staff should manage the knowledge and information assets that are the property or the responsibility of NLB, while conducting the business of NLB. This policy is supported by sub-policies giving more detailed direction and guidance initially covering:

- Information and Knowledge Sharing;
- Records Management;
- Information Custodianship;

- Document Management;
- Metadata.

The policy supports greater consistency in information creation, description, access and sharing across the organisation. The objectives of this policy are to ensure that NLB and its staff:

- foster a culture of openness, sharing and trust, while safeguarding sensitive information in a responsible way;
- make the data, information and knowledge required by staff to perform their duties easily available, providing a supportive, efficient and productive workplace;
- increase their ability to create value from NLB's knowledge by improving cross-organisation collaboration and knowledge sharing;
- can conduct effective business planning and strategic decision-making with sound information;
- minimise business risk arising through lack of adequate or timely access to accurate information, or through poor recordkeeping practices;
- meet NLB's statutory requirements and can demonstrate compliance with those requirements.

NLB makes use of various system platforms to retain knowledge for strategy development and decision-making, and manage knowledge for organisational learning. For example, information on the Board Retreat and divisional work plans are parked in shared folders, and key performance indicators are tracked through the Executive Information System. The Corporate Resource System (CREST) is used for administration, finance and staff management (performance, learning, etc). Teamrooms on sharedspace are used by work and project teams to share information.

NLB has adopted an analytics-based performance management approach to drive decision making, develop new insights and understand performance based on data and statistical methods.

To support this initiative, NLB has implemented a comprehensive Big Data Programme to leverage on NLB's unique data assets to derive actionable insights at the strategic, tactical and operational levels across the entire organisation. With millions of users accessing tens of millions of physical and digital resources (i.e., the NLB collections) available across the island state, NLB is in the possession of a 'treasure trove' of valuable data.

The Big Data Programme provides sufficient volumes of high quality data, covering both strategic and operational analytics. It examines various dimensions (including geospatial) to identify patterns, relationships and insights.

To build organisational agility and readiness to deliver quality customer service, NLB employs several tools to determine the current and future requirements of its customers, ensuring continuous and relevant data collection.

To facilitate innovations in the design and planning for new/revamped libraries (library@orchard, Sembawang Public Library, Pasir Ris Public Library), NLB has conducted focus group and public engagement sessions, and made use of the design thinking methodology to develop relevant and innovative design and service concept and implemented them for target groups. Environment scan of existing options and learning from other organisations was carried out in developing the auto-sorter and reservation lockers, leading to streamlined services and increased productivity. NLB also gathers ideas for innovation internally through the biannual Blackbox competition to empower staff to explore possibilities and turn their ideas into reality.

To facilitate organisational learning, and leverage the expertise and the diverse knowledge of staff, NLB has created a knowledge ecosystem that is interactive, dynamic and adaptive. Division policies and manuals are organised and made accessible to staff through the Staff Portal/EIP (Enterprise Information Portal); ISO Team Sites of Public Library Services, National Library, and Properties & Facilities Management. Staff are kept updated on new initiatives, work plans, updates on policies and new developments through town halls on cross-divisional and divisional levels, and email broadcasts such as the Chief Executive Connect and Learning Broadcast.

For more information on the Innovation Award and to view the full report please contact Gabriel Tan, email address : [Gabriel.Tan@nlb.gov.sg](mailto:Gabriel.Tan@nlb.gov.sg) or Narinder Kaur, email address : [Narinder.Kaur@nlb.gov.sg](mailto:Narinder.Kaur@nlb.gov.sg).