

Thriving Through Organizational Agility: The NIST Information Services Office's Baldrige Journey

Barbara P. Silcox
Mary-Deirdre Coraggio
Susan Makar
Mylene Ouimette

Information Services Office
National Institute of Standards and Technology

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Organizational agility is the capacity to quickly identify and capitalize on opportunities to successfully meet and exceed customer expectations. This capability, critical to an organization's success, can be achieved and sustained using evidenced-based assessment practices and by managing an organization from a holistic point of view. The Baldrige Criteria for Performance Excellence are used by thousands of U.S. organizations to provide this holistic view for measuring and improving performance [1]. The Information Services Office (ISO) at the National Institute of Standards and Technology (NIST) began its Baldrige journey in 1997; ten years later it was awarded the Maryland Silver Quality Award by the Maryland Performance Excellence Award program.

This chapter addresses how the ISO uses the Baldrige Framework to guide and propel our organization forward. It explains why this view of organizational management works so well for us and how it can be implemented by other libraries. It describes how the systematic management and assessment approaches taken by the ISO strengthened our organization's ability to respond quickly to rapidly changing technologies and rising customer expectations. The chapter discusses how the ISO introduces new hires into its organizational culture. It shows how the ISO involves the entire workforce in all aspects of strategic and operational planning and organizational assessment to build a depth of commitment to excellence and leadership. It presents specific examples of approaches and systems, identified as "role model" practices, which can be adapted and used by other library organizations. These role model practices include (1) the ISO's Lab Liaison Program, which serves as a key mechanism for listening to and partnering with our customers; (2) the Vision Implementation Project, which helps to promote understanding and staff involvement in vision implementation; and (3) the ISO's Workforce Development and Performance Management Systems, which define how employee work assignments are aligned with professional development and the organizations' strategic and operational plans. The chapter concludes with some considerations for the organization's future directions and how it may continue to flourish in a tight budget climate.

Background

The ISO is an award-winning organization with a deeply rooted commitment to customer service excellence and a culture that encourages risk taking, learning, and assessment [2]. This commitment and culture are woven through the organization's mission and values, which are reviewed, reaffirmed, or updated by the entire organization on a yearly basis. The ISO's mission is "to support and enhance NIST's scientific and technological community through a comprehensive program of knowledge management." To support this mission, the ISO provides professional scientific and technical information assistance to NIST research staff throughout their research and publishing cycles through the activities of three programs: the Research Library and Information Program, the Electronic Information and Publications Program, and the Museum and History Program.

The ISO accomplishes its mission with a workforce of twenty-eight, which includes the office director and the two program managers, all of whom are professional librarians. The Research Library Information Program

consists of six professional librarians, six support staff, and a business specialist. The Electronic Information and Publications Program consists of four professional librarians, two technical information specialists, a program analyst, a writer/editor, and three support staff. No staff are specifically assigned to the Museum and History Program. A secretary, who reports to the office director, rounds out the workforce.

While employees are officially assigned to a specific program and supervisor, they typically work across organizational lines. This enables the organization to target the most appropriate talent and expertise to any given project, and effectively manage workload according to priorities. The program managers have direct line supervision and share responsibilities for providing input to and reviewing the work that crosses programs. This approach to operating and managing the organization is driven by the Knowledge Continuum, a concept first introduced in 1993 by the former library director. The concept is based on the premise that the processes that contribute to the creation of new knowledge in the research environment form part of a continuum which has no beginning or end. Therefore, research institutions are best served by library organizations that extend their role in the scholarly research process beyond supporting research discovery, to producing and disseminating research results. In implementing the concept within the ISO, “management sought to capitalize on, and extend an organizational structure that was formally in place as a single unit, but was in reality working as a composite of distinct and unrelated units [3].” While many libraries in academic institutions have been providing some form of publishing services since 2007, the approach adopted by the ISO was novel when first introduced in 1993 [4].

Through a concerted effort by management, the Knowledge Continuum has provided the overarching philosophy that drives how the ISO operates as one cohesive organization. The ISO’s products and services are mapped to the Continuum and it forms the framework for defining organizational and workforce competencies. New employees are introduced to the Knowledge Continuum concept early via the ISO employee handbook. The Continuum concept and how it translates into services and design of work systems is also reinforced regularly at staff meetings.

By respecting our organization’s stated values and the overarching philosophy of the Knowledge Continuum, the ISO workforce exemplifies the commitment to excellence that enables our organization to go beyond customer expectations. The Baldrige Framework provides the means for sustaining this commitment to excellence. Together, the Knowledge Continuum and the Baldrige Framework underpin the ISO’s approach to management and assessment to ensure that the organization remains agile and stays focused on results, impacts, and creating value for stakeholders and customers.

The Baldrige Criteria and Framework

The Baldrige Criteria for Performance Excellence is an assessment tool which any organization can use to evaluate and improve its overall performance [5]. The criteria consist of sets of questions within seven key categories deemed critical to successful organizational performance. These categories form a framework for managing an organization. The questions posed in each category of the criteria serve as the guide for examining how well the organization operates. The Baldrige Criteria do not prescribe specific management practices or methods; organizations must devise and document practices and methods that are most suitable for their environment. The criteria do provide a structured, holistic approach for determining effective operations and performance. Six categories—leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; and operations focus—work together and form the basis for setting strategy and improvement targets, as well as analyzing results to determine overall organizational performance.

We are often asked why a library should struggle with such a complex method for managing and assessing an organization. There are several reasons. Our first answer applies to any organization choosing to use the criteria. You can start small and build on your successes. There is nothing in the criteria that requires you to tackle all of the criteria categories at once. As long as you keep the entire framework in mind, you can begin by choosing one category or elements of several categories. The ISO began with strategic planning (Category 2), addressing skills mix issues (Category 5), and learning more about our customers (Category 3). All efforts were, and continue to be, focused on the entire Baldrige Framework and the Knowledge Continuum.

While the Baldrige Criteria and Framework appear to be complex, they can be adapted to any size or type of organization. The criteria and framework merely provide the parameters and the lens through which an organization can design and assess its management approaches. How those approaches are implemented directly determines the results. Nothing in the Baldrige Criteria specifies the right answers for ensuring that you formulate the shrewdest strategic plans, create the most efficient work processes, or select the most appropriate and valid measurements.

Our second answer applies specifically to libraries. To say that libraries are both customer- and process-oriented trivializes what every professional librarian learns during their graduate studies and the roles most research libraries play in their organizations. Libraries are large, complex information systems. Librarians, by training, take a systems-oriented approach to solving problems for their customers. The Baldrige Framework is a systems approach to organizational management that overlays well with the principles of information systems management. The theory and principles of information systems influence the way librarians think and act. For example, helping library customers with their information needs is often a process of joint problem analysis and problem solving. This process starts with asking questions, identifying and anticipating customers' needs, determining priorities, and balancing trade-offs to find the best solution. The process is often cyclical and involves obtaining feedback from the customer and evaluating the approaches used to determine that the actions taken were appropriate and had the desired outcome and impact. It is this systems-oriented thinking that librarians acquire through education or develop through experience that enables them to apply the approaches outlined in the Baldrige Criteria.

The Baldrige Criteria provide the approaches we use to understand and manage organizational and individual performance. They guide the way we think and act strategically; they help us ask questions about how we conduct business; and they help us focus on results and impacts. Following the criteria, the ISO links strategic and operational goals with customer requirements, key processes, and workforce development to achieve success. Employee performance plans and individual development plans are directly linked to the ISO's strategic and operational plans. This alignment and connectivity, as well as a focus on assessment and continuous improvement, enable the ISO to respond quickly to changing technologies and customer expectations and requirements. (See figure 1.) Further, our knowledge and understanding of our customers gained through regular and ongoing assessment activities contribute greatly to our agility. The keys to our success are simple—we listen, learn, assess, partner, and collaborate. We are comfortable with critically evaluating our triumphs and failures. We recognize our success results from leadership, celebrating successes—both large and small—and focusing on results and impact.

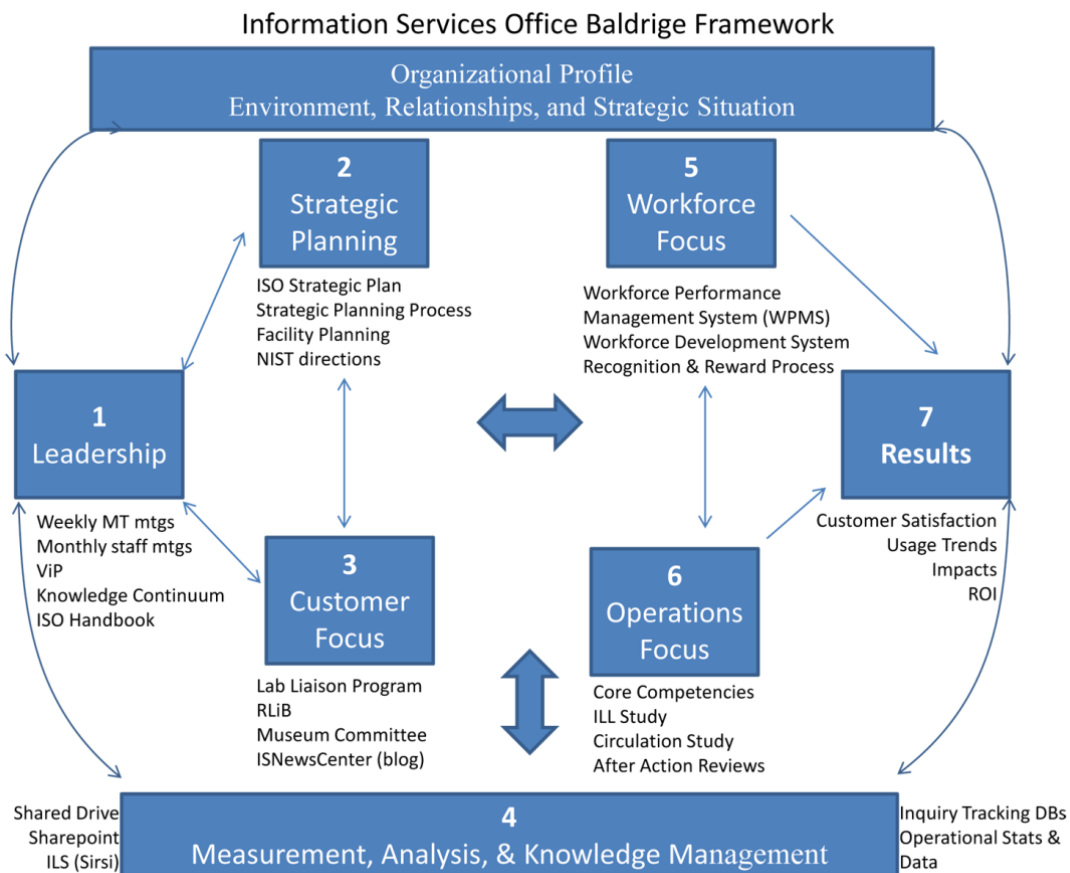


Figure 1. ISO activities mapped to the Baldrige Framework

While the ISO adopted the Baldrige Framework for managing our organization, we do not undertake its use with an unrealistic adherence to every item listed in each of the criteria categories. Nor do we find ourselves unduly entangled in defining and capturing every process and improvement strategy. As a small organization, there is an important balance between documenting and measuring every process and making decisions based on a priori knowledge to keep moving forward. We focus on the big picture and rely on our professional training and experience to ground us. We also continue to instill in our workforce a strong regard for creativity, trying new things, taking calculated risks, being responsive to the customer, and learning from both successes and mistakes. This sometimes requires a leap of faith rather than strict conformance with any particular decision-making process or management tool.

There are valuable principles within the Baldrige Criteria and Framework that have assisted the ISO in improving and sustaining its overall performance. These principles include visionary leadership, organizational learning, customer-driven performance, a cross-trained and engaged workforce, and a focus on results. We continue to build and maintain credibility with our customers and stakeholders by implementing evidenced-based practices. We are keenly aware of and can take advantage of our strengths and are able to identify and correct our weaknesses. Most important, we have developed an organization that is quick-thinking, effectively manages its resources, uses data to make decisions, and continues to build a loyal customer base.

Building a Culture Focused on Knowledge Sharing, Improvement, and Results

Since the early 1990s, the ISO leadership has taken significant steps to create and reinforce an environment that fosters knowledge sharing and agility, stimulates innovative thinking, and ensures organizational sustainability. The Baldrige Criteria recognize the importance of leaders' actions in establishing this environment. Efforts to develop a quick-thinking, managerially effective organization with a loyal customer base began long before the Baldrige Framework became part of our culture. These efforts, however, were critical in setting the course for our adoption of the Baldrige approaches to performance excellence. We attribute the ISO's ongoing agility to the ongoing actions taken by the ISO leadership; our close connection to our customer; our understanding of our internal processes and the effect they have on our customers; our focus on improvement and staying ahead of customer requirements; our mechanisms for sharing knowledge with our customers and with one another; and our focus on results and impact.

Following the introduction of the Knowledge Continuum, the ISO created a vision, mission, and set of values. (See figure 2.) These statements have largely withstood the test of time, undergoing a few slight revisions since their creation in 1997. Our values underpin our organization's emphasis on knowledge sharing, customer-driven excellence, risk taking, and teamwork, while our mission and vision serve as the context for our strategic and operational plans.

Mission

To support and enhance NIST's scientific and technological community through a comprehensive program of knowledge management

Vision

To be globally recognized as the premier science and technology information resource for measurement science

Values

- To be a trusted provider of information products and services through a knowledgeable, responsive, and professional staff
 - To anticipate and exceed our customers' expectations
 - To be always accessible to and approachable by our customers
 - To create an atmosphere within ISO that inspires superior performance by all its employees
 - To develop new services and products through open communication and by encouraging risk taking
 - To strive to obtain new resources and make the most efficient use of existing resources
 - To develop and use teamwork based on trust, mutual respect, and pride
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Figure 2. ISO mission, vision, and values

Identity plays a large role in living our values and pursuing our vision. The ISO workforce has developed a strong, team-oriented, customer-centric identity. Staff are confident they are listening to customers and responding with well-defined expertise. They are sure of and proud of the ISO's well-branded products. This confidence and pride is evidenced in their interactions with customers and articulated in the many formal discussions and informal conversations ISO leaders have with customers and staff. Knowledge sharing; frank, open communication on issues affecting the organization; and communication of long- and short-term strategic and operational plans occur at monthly ISO staff meetings. This inspires trust between all levels of the organization and serves as a tool for preventing and eliminating communication barriers. Our open communication is a result of continuous and persistent efforts made by ISO leaders.

Identity and values also play important roles in our hiring process, influencing what we look for in candidates, and how we handle interviews and selection. While credentials are important, the ISO pays particular attention to qualified candidates who best fit our organization. Staff are integral members of the interviewing team, reporting their assessment of candidates to the hiring official. Newly hired employees are paired with a buddy who, along with the supervisor, orients the employee to the ISO and the larger institution. All employees are given an ISO employee handbook. This document addresses topics specific to the ISO's management approaches and culture, such as the Knowledge Continuum; strategic plans and the planning process; knowledge sharing; and our implementation of Baldrige.

Knowledge sharing is a key element that binds our organizational culture. Monthly program-level meetings, in addition to our monthly staff meetings, allow staff the opportunity to delve into project details and receive suggestions and input from staff not involved in a project. Processes and workflow are refined during these meetings and staff share what they are hearing from their customers. Since agility requires trust and action to accomplish organizational objectives and this trust is gained through listening and sharing, there are no secrets. All staff are encouraged to share their ideas and concerns about all projects. From our staff and program-level meetings, new hires quickly learn about the work conducted throughout the organization and the importance of sharing and learning from one another.

If knowledge sharing unites the ISO internally, it also inspires trust and confidence externally with our customers. The ISO uses many mechanisms for building customer relationships. While seminars, open houses, and training sessions to demonstrate research tools and informatics methods are part of our repertoire, proactive two-way communication undertaken with individual customers is most effective. Even our most loyal customers continue to be amazed at what we can do for them.

Agility also requires consistent attention to operational and strategic plans. The ISO takes a rigorous and systematic approach to planning, recognizing that planning heightens staff awareness of organizational directions, customer expectations, and stakeholder requirements. The ISO welcomes and encourages "out of the box" thinking and incorporates it into organizational structures and planning processes. Innovation and creativity thrive in the ISO because the playground is surrounded by processes and systems that create an infrastructure capable of sustaining a complex organization equipped to quickly adopt new ideas. The role model practices described later in this chapter are examples of the processes and systems that provide fertile ground for identifying and implementing internal improvements. Improvements are made by starting small, but keeping the big picture in mind.

Tracking and monitoring results is vital to achieving organizational agility. Knowing what data to collect, how frequently to collect it, and how to interpret it is critical to sustaining performance excellence. The Baldrige Criteria call for organizations to "select and use data and information for performance measurement, analysis, and review in support of organizational planning and performance improvement [6]." The ISO regularly conducts assessment activities to gain an understanding of its performance. These activities are integrated into all phases of planning and service delivery. These activities are also embedded in employee annual performance plans. Staff routinely conduct after-action reviews at the conclusion of most projects, whether large or small, and employee performance plans typically include the language "ensures ISO projects are assessed for impact; works with other ISO staff to ensure data is collected, analyzed, and synthesized for decision-making and repurposing to stakeholders and customers." Results require examining performance and outcomes critically and independently against benchmarks and standards, in relation to competitors, and against customer requirements. Over the years, the ISO's assessment initiatives have included large customer satisfaction surveys, benchmark studies, focus groups, customer requirement and use studies, and workforce satisfaction studies [7]. In addition to these large assessment activities, ISO routinely collects and analyzes transactional usage and satisfaction data to understand and anticipate customer and stakeholder requirements.

Reviewing and examining our processes and services in relation to data on performance, transactional requirements, and customer satisfaction lead to incremental improvements. Examining and taking actions on workforce feedback, for example, improve staff responsiveness, loyalty, and leadership. The ISO lives in a state of

constant change that can be both challenging and disruptive. However, our ability to successfully adapt to change reflects on the ISO's flexible and agile nature. This is a direct result of our culture, vision, and values as well as our systematic approach to managing the organization and assessing its health.

Role Model Practices

Our role model practices are the direct results of leadership, planning, strong processes, knowledge sharing, and assessment. All are connected to one another through the lens of the Baldrige Framework and Criteria, which state that "a sustainable organization is capable of addressing current business needs and possesses the agility and strategic management to prepare successfully for its future business, market, and operating environments [8]." The ISO's Lab Liaison Program and Vision Implementation Project (ViP) are examples of actions taken by the ISO's leadership to create a sustainable, agile organization. The ISO's Workforce Development and Performance Management Systems are examples of the ISO's mechanisms for supporting high-performance work. While some role model practices are born of innovation and take hold more quickly, others are the result of implementing cohesive processes. Each of the following role model practices falls into one of these categories.

ISO's Lab Liaison Program

In 1997 ISO leaders realized that for the ISO to achieve its vision, it needed a more collaborative relationship with customers. To build relationships with key customers specifically, they initially created a Research Consultants Program, which evolved into the Lab Liaison Program in 2002. Today lab liaisons partner and collaborate with NIST scientists and other technical staff on a variety of strategic research activities. Liaisons are assigned to NIST labs and programs to establish and maintain close working relationships with managers and scientists within these organizations. They serve as personal consultants to researchers in each lab or program, contributing their expertise to lab research and planning activities, and are the researchers' primary point of contact with the ISO. Liaisons work directly with NIST researchers to help assess the impact of researchers' work and to identify the best places for researchers to publish to reach their intended audience. Liaisons gather and analyze market and industry data, and educate labs and programs about the advantages of using the ISO's resources and customized services. They also gather feedback for ISO strategic planning, enhancing products and services, and improving operational processes.

Lab liaisons use a variety of mechanisms for establishing and maintaining relationships with customers. These include attending and presenting at lab meetings, meeting one-on-one with bench scientists and lab management, addressing new employees at NIST New Employee Orientation sessions, attending and contributing to lab events and special activities, and participating in NIST-wide committees. Liaisons stay abreast of their lab's research and programmatic activities through their relationships with customers by monitoring the *NIST Monthly Highlights* and by hosting the monthly Research Library Board meetings.

Since 1997, the Lab Liaison Program concept has been a major component of the ISO's strategic plan, and the importance of the program to the ISO's strategic success remains constant. Today the Lab Liaison Program is at the forefront in furthering the ISO's strategic goals "to help advance and position NIST research and publishing activities for maximum impacts" and "to increase the visibility and use of ISO services and resources."

Lab liaisons play a critical role in collecting and analyzing data for performance assessment and improvement. They use many mechanisms to gather information about customers, and as a result are able to suggest analyses or develop information products in advance of customers' requests. Liaisons have conducted many highly visible projects on behalf of or in collaboration with their customers, such as analyzing publishing impacts for an entire NIST lab; formulating publishing strategies to help labs achieve maximum impact; conducting comprehensive literature reviews that became part of researchers' papers; developing methods for researchers to share sources for hard-to-find scientific properties data; measuring relative impact against peer research institutions; and examining the state of scientific or technical research at U.S. universities to assess U.S. competitiveness in the global marketplace.

At the completion of each project, liaisons seek feedback from the customer. This feedback is used to refine research analysis methods and to extend or plan additional products or services for new groups. Liaisons record this feedback and other information about their projects and collaborations using a central tracking tool. This data is

reviewed regularly by the liaisons and ISO leaders for the purposes of planning, refining, or creating new products and services.

A key component of the Liaison Program is collaboration among the liaisons. Liaisons share information, strategies, and accomplishments at biweekly meetings, which offer a forum for reviewing customer requests and feedback, and for developing and critiquing potential strategies for meeting customer needs. These meetings are also used as training sessions to learn about new analysis tools, methods, and resources. Discussions often result in liaisons working together to develop action plans or methods for meeting customer needs. For large, extensive projects, liaisons make recommendations to ISO leadership on the methods and skills needed to meet the project requirements, as well as budgetary considerations. They also provide a time line for carrying out the project.

Each liaison has an individual, self-created strategy plan that maps out tailored approaches for communicating, educating, and working with their assigned lab or program. While individual plans may differ in the methods and strategies used to meet the Liaison Program goals, the goals of collaboration and outreach are the same.

ISO leadership supports the Lab Liaison Program by emphasizing the skills, expertise, and values required for success. This support is reflected in their recruitment for new hires and through their budgeting for training and professional development. The ISO seeks individuals who are excellent communicators with strong customer service abilities and values. Writing skills are essential since liaisons create reports and write detailed analyses for their customers. Liaisons typically have backgrounds in scientific or technical areas and substantial experience and expertise in information research and analysis. While professional development is a must for all ISO employees, liaisons are particularly encouraged and active in organizations such as the Special Libraries Association, the Society for Scholarly Publishing, and the National Information Standards Organization.

The Liaison Program provides an illustrative example of ISO workforce engagement to achieve high performance. ISO leaders encourage each liaison to formulate their own recommendations for how to best interact with their assigned lab and to develop appropriate work products or services. Though this is an inherent risk, each liaison is able to work creatively and independently to establish collaborative relationships within their respective lab. Each liaison also understands the importance of collaborating and sharing knowledge with other liaisons. It is this knowledge sharing that makes the Liaison Program a success.

Vision Implementation Project

In 2005 the ISO director created the Vision Implementation Project (ViP) to promote staff understanding of and involvement in vision implementation, to position staff to act as change agents by boosting staff-to-staff influence, and to help staff understand connections between operational plans, strategic goals, and the organization's vision. The ViP is comprised of three ISO staff members with varying professional or educational backgrounds and with various functional roles within the organization. The ViP's goals are to develop ideas that facilitate the translation of the ISO's vision into actual operations. The ViP's projects, activities, and products help the ISO navigate the pathways between strategic and operational goals and also help the organization identify means for increasing its visibility within the NIST.

Fundamentally, the ViP serves as a think tank, helping the ISO to stay abreast of future trends and to remain attuned to the NIST's evolving vision for itself. ViP team members communicate with ISO staff in a variety of ways, encouraging ISO staff to share ideas with each other and contribute to envisioning the future for the organization. The ViP recognizes that the changing information infrastructure creates many new challenges, threats, and opportunities for the ISO. Future customers will have higher expectations for information services as a result of their technology fluency and preference for multitasking. Since its creation, the ViP has led the ISO staff in a variety of workshops on topics such as the information ecosystem and the ISO's web presence, customer workflow analysis, and research trends to address issues of strategic interest to the organization. Each workshop has allowed the staff to grapple with issues and emerging trends in the library and publishing industries and think about ways the ISO can meet current and future customer expectations.

The ViP documents its findings and presents results for each activity in the form of a written report for the ISO leadership and the staff. These results have influenced ISO activities and strategic directions by creating ongoing opportunities for the entire staff to participate in considering strategic issues of importance to the health and future of the organization. They also help staff think strategically and translate vision into reality.

ISO's Workforce Development and Performance Management Systems

The ISO's values support high-performance work, and engagement. (See figure 3.) Through individual development opportunities, challenging and varying work assignments, and incorporating opportunities for innovation and experimentation, ISO's iterative Workforce Development and Performance Management Systems provide the framework for high performance in individual and organizational achievement.

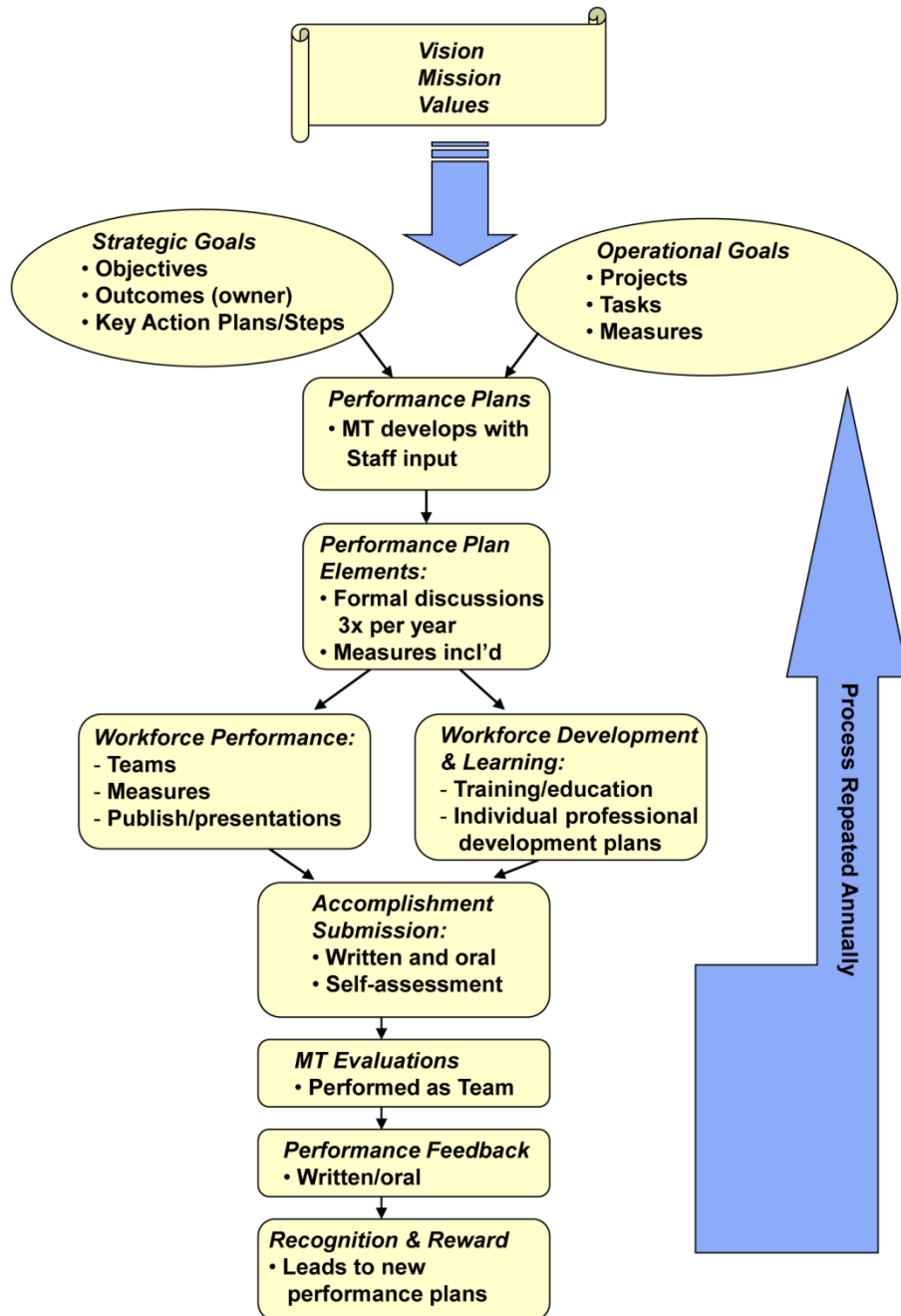


Figure 3. Flowchart illustrating ISO's Workforce Development and Performance Management System

Communication at all levels is vital to the system's success. The systems enable regular, formal feedback opportunities between employees and supervisors to discuss projects and accomplishments and review performance. In addition, ISO leaders collaborate and share with one another to ensure that they are well informed and up-to-date regarding the status of projects across functions and organizational lines. Leaders also communicate regularly with staff through a variety of forums regarding ISO objectives, progress, and performance. This helps to reinforce the sense of ISO "identity" that contributes to workforce engagement.

Staff members also have a multitude of avenues for contributing feedback regarding individual tasks and responsibilities throughout the entire life cycle of yearly performance plans. Staff members submit descriptions of their individual accomplishments to their direct supervisors using a standard template. This template provides a benchmark for comparison against the ISO's strategic and operational goals.

Individual development is a major priority and even in a tight budget climate, the ISO leadership supports professional development and training for all staff. The ISO began conducting intensive skills self-assessments in 2000 requiring staff members to rate their comfort and proficiency in a comprehensive range of skill areas. The results of this assessment form the basis for identifying skill set gaps and determining specific areas for improvement. Information on training opportunities inside and external to NIST and on potential venues for publishing and presenting is provided in the ISO Annual Professional Development Plan to guide the staff in creating their individual development plans (IDPs).

IDPs specify the employee's developmental short-term and long-term goals and include specific training or developmental opportunities for achieving those goals. Short-term goals must address the specific skill areas, work assignments, and success measures identified in the employee's annual performance plan. IDP requirements include training in areas of organizational development and leadership.

New knowledge and skills are reinforced on the job through knowledge-sharing activities and new work assignments. The ISO's emphasis on learning and sharing creates a contagious excitement that results in high levels of employee engagement and creativity. This emphasis on learning is also a critical ingredient for sustaining agility.

Conclusion

The ISO vision "to be globally recognized as the premier science and technology information resource for measurement science" remains clear. As we build on our successes, the keys to our future remain the same as our past—using a systematic approach to understanding and managing the organization.

Like other libraries, technological advances and developments in library and publishing standards lead to many of our initiatives. Not surprisingly, changes in key products and services require a stronger focus on management and delivery of digital content we both license or own. The Lab Liaison Program continues to aggressively pursue targeted strategic research activities. Liaisons' ongoing relationships with NIST researchers continue to thrive and grow. We are assessing the impact of our activities and services on the NIST community, to coincide with NIST's emphasis on measuring the impact of its research. This is no small challenge, but helps us to further demonstrate our value to the NIST.

A significant NIST realignment and reorganization initiated in fiscal year 2011 presents new challenges. Changes in customer demographics demand new approaches to library services. The economic downturn has affected resource allocation. Limited resources and long-term relevance and sustainability demand that the ISO focus on the right customers and identify areas where we have maximum impact. We recognize a need to exploit emerging publisher business models, such as pay-per-view, to enable discovery and access to content required by our customers. ISO teams are evaluating options to reengineer processes and more effectively use resources. Our quick response to this changing budgetary and publishing landscape is emblematic of our agility and commitment to performance excellence.

When using the Baldrige Criteria it is important to understand the meaning of "what" and "how." These differences are critical to assessing results and understanding if our approaches show evidence of deployment, learning, and alignment with organizational goals. Looking at the "how" allows us to view processes and service delivery in a way that permits diagnosis and feedback.

Like many organizations, we have struggled with selecting meaningful measures that give the best guidance for organizational planning and performance improvement. Transactional measures that give statistics on use, number of downloads, satisfaction, trends, and patterns, all tell a story and help us with decision making. Setting meaningful targets in an ever-changing environment and determining the best measures to assess impact are more complicated. In 2010, the ISO created a Measures Portfolio as a means for compiling information about what

we have been measuring, how we capture the data, and determining what else we should be measuring. We intend to use this portfolio to select and build a system for integrating the right measures into our processes and planning.

We continue to evaluate our key processes, our improvements, and what we measure. Understanding the customer view of the value of our products and services leads to better performance. The ISO is eager to learn new assessment methods and to create vehicles to better manage our assessment information. We intend to focus on our internal collaboration processes, to streamline our data collection burden and improve our ease of sharing. Most important, translating our results into impact statements is critical to our future.

The Baldrige Framework is working for the ISO. It influences how we approach our immediate future to sustain our agile and viable program. We believe this framework lends itself well to libraries looking to shape their future.

NOTES

- [1] Baldrige Performance Excellence Program, *Criteria for Performance Excellence*, 2011-2012 (Gaithersburg, MD: National Institute of Standards and Technology, 2011).
- [2] In 2003 and 2008 the organization received the Federal Library of the Year Award from the Federal Library and Information Center Committee in recognition of its innovative practices and customer focus.
- [3] Paul Vassallo, "The Knowledge Continuum—Organizing for Research and Scholarly Communication," *Internet Research: Electronic Networking Applications and Policy* 9, no. 3 (1999): 232-42.
- [4] Karla L. Hahn, *Research Library Publishing Services: New Options for University Publishing* (Washington, DC: Association of Research Libraries, 2008).
- [5] The Baldrige Criteria for Performance Excellence were first developed in the late 1980s as a standard of excellence that would help U.S. companies achieve world-class quality. The criteria have continued to evolve over time to reflect changes in management practices and to include the education, health care, and nonprofit (including government) sectors. For more information, see National Institute of Standards and Technology, Baldrige Performance Excellence Program, March 25, 2010, www.nist.gov/baldrige/.
- [6] Baldrige Performance Excellence Program, Criteria Category 4, Measurement, Analysis, & Knowledge Management.
- [7] Nancy Allmang and Mylene Ouimette, "Case Study: The NIST Research Library's Experience Using Focus Groups in Strategic Planning," *Library Administration and Management Journal* 21, no. 2 (Spring 2007): 77-82, 94; Harriet Hassler, "What Are Our Customers Reading? An Analysis of the Most Frequently Used Subjects of the NIST Research Library Book Collection Based on Circulation," NISTIR 7205 (Gaithersburg, MD: National Institute of Standards and Technology, 2005); Paula Deutsch and Barbara Silcox, "From Data to Outcomes: Assessment Activities at the NIST Research Library," *Information Outlook* 7, no. 10 (2003): 24-31.
- [8] Baldrige Performance Excellence Program, Criteria Category 1, Leadership.