The following Baldrige Commentary applies to these OE21 Standards:

6.1a Product, Service and Process Design
6.1b Process, Project Management and Improvement
6.1c Supplier and Supply Chain Management
6.1d Innovation and Risk Management
6.2a Process Efficiency and Effectiveness
6.2b Management of Information Systems
6.2c Safety and Emergency Preparedness

Operations (Category 6)

This category asks how you focus on your organization's work, product design and delivery, innovation, and operational effectiveness to achieve organizational success now and in the future.

6.1 Work Processes

Purpose
This item asks about the management of your key products, your key work processes, and innovation, with the aim of creating value for your customers and achieving current and future organizational success.

Commentary
Work process requirements. Your design approaches could differ appreciably depending on the nature of your product or service offerings—whether the products and services are entirely new, are variants, are customized, or involve major or minor work process changes. Your design approaches should consider the key requirements for your products and services. Factors that you might need to consider in work process design include safety, long-term performance, environmental impact, your carbon footprint and "green" manufacturing, measurement capability, process capability, manufacturability, maintainability, variability in customer expectations requiring product or support options, supplier capability, and documentation.

Effective design must also consider the cycle time and productivity of production and delivery processes. This might involve detailed mapping of manufacturing or service processes and the redesign ("reengineering") of those processes to achieve efficiency, as well as to meet changing customer requirements.

Key product-related and business processes. Your key work processes include your product- and service-related processes and those nonproduct business processes that your senior leaders consider important to organizational success and growth. These processes frequently relate to your organization's core competencies, strategic objectives, and critical success factors. Key business processes might include technology acquisition, information and knowledge management, mergers and acquisitions, global expansion, project management, and sales and marketing. For some nonprofit organizations, key business processes might include fundraising, media relations, and public policy advocacy. Given the diverse nature of these processes, the requirements and performance characteristics might vary significantly for different processes.

Work process design. Many organizations need to consider requirements for suppliers, partners, and collaborators at the work process design stage. Overall, effective design must take into account all stakeholders in the value chain. If many design projects are carried out in parallel or if your products utilize parts or supplies, equipment, personnel, and facilities that are used for other products or processes, coordination of resources might be a major concern, but it might also offer a means to significantly reduce unit costs and time to market.

In-process measures. This item refers specifically to in-process measurements. These measurements require you to identify critical points in processes for measurement and observation. These points should occur as early as possible in processes to minimize problems and costs that may result from deviations from expected performance.

Process performance. Achieving expected process performance frequently requires setting in-process performance levels or standards to guide decision making. When deviations occur, corrective action is required to restore the performance of the process to its design specifications. Depending on the nature of the process, the corrective action could involve technology, people, or both. Proper corrective action involves changes at the source (root cause) of the deviation and should minimize the likelihood of this type of variation occurring again or elsewhere in your organization.

When customer interactions are involved, evaluation of how well the process is performing must consider differences among customers. This is especially true of professional and personal services. In some organizations, cycle times for key processes may be a year or longer, which may create special challenges in measuring day-to-day progress and identifying opportunities for reducing cycle times, when appropriate.

Key support processes. Your key work processes include those processes that support your daily operations and your product and service delivery but are not usually designed in detail with the products. Support process requirements do not usually depend significantly on product characteristics. Such requirements usually depend significantly on internal requirements, and they must be coordinated and integrated to ensure efficient and effective linkage and performance. Support processes might include processes for finance and accounting, facilities management, legal services, human resource services, public relations, and other administrative services.

Process improvement. This item calls for information on how you improve processes to achieve better performance. Better performance means not only better quality from your customers' perspectives, but also better financial and operational performance—such as productivity—from your other stakeholders' perspectives. A variety of process improvement approaches are commonly used. Examples include

- using the results of organizational performance reviews;
- sharing successful strategies across your organization to drive learning and innovation;
- performing process analysis and research (e.g., process mapping, optimization experiments, error proofing);
- conducting technical and business research and development;
- using quality improvement tools like Lean, Six Sigma, and Plan-Do-Check-Act (PDCA);
- benchmarking;
- using alternative technology; and
- using information from customers of the processes—within and outside your organization.

Process improvement approaches might use financial data to evaluate alternatives and set priorities. Together, these approaches offer a wide range of possibilities, including a complete redesign ("reengineering") of processes.

Supply networks. Rather than a one-to-one-to-one supply chain, organizations must increasingly rely on a supply network to manage assets outside traditional organizational boundaries. Suppliers, partners, and collaborators are receiving increasing strategic attention as organizations reevaluate their core competencies and their place within their business ecosystem. To optimize the value of its supply network, organizations need to position themselves to take advantage of an agile, interdependent network of suppliers.

Supply-network management. For many organizations, supply-network management has become a key factor in achieving productivity and profitability goals and overall organizational success. Supplier processes should fulfill two purposes: to help improve the performance of suppliers and partners and to help them contribute to improving your overall operations. Supply-network management might include processes for selecting suppliers, with the aim of reducing the total number of suppliers and increasing preferred supplier and partner agreements.

Supply-network communication. Mechanisms for communicating with suppliers should use understandable language. They might involve in-person contact; email, social media, or other electronic means; or the telephone. For many organizations, these mechanisms may change as marketplace, customer, or stakeholder requirements change.

Innovation management. In an organization that has a supportive environment for innovation, there are likely to be many more ideas than the organization has resources to pursue. This leads to two critical decision points in the innovation cycle: (1) commensurate with resources, prioritizing opportunities to pursue those opportunities with the highest likelihood of a return on investment (intelligent risks) and (2) knowing when to discontinue projects and reallocate the resources either to further development of successful projects or to new projects.

6.2 Operational Effectiveness

Purpose

This item asks how you ensure effective operations in order to have a safe workplace environment and deliver customer value. Effective operations frequently depend on controlling the overall costs of your operations and maintaining the reliability, security, and cybersecurity of your information systems.

Commentary

Cost control. Cost and cycle-time reduction may be achieved through Lean process management strategies. Defect reduction and improved product yield may involve Six Sigma projects. It is crucial to utilize key measures for tracking all aspects of your operations management.

Security and cybersecurity. Given the frequency and magnitude of electronic data transfer and storage, the prevalence of cybersecurity attacks, and customer and business requirements around securing assets and information, managing cybersecurity is an essential component of operational effectiveness. Proper management of cybersecurity requires a systems approach that focuses on using key business factors to guide cybersecurity activities and integrating cybersecurity with your overall leadership and management approaches. In a dynamic and challenging environment of new threats, risks, and solutions, managing cybersecurity means taking into account your organization's unique threats, vulnerabilities, and risk tolerances. It means determining activities that are important to critical service delivery and to your customers, and prioritizing investments to protect them. Cybersecurity may involve training workforce members not directly involved in information technology matters and educating customers, suppliers, and partners. It may also involve communicating with these stakeholders to inform them of potential cyber threats, inform them of breaches, and report recovery efforts in order to maintain their confidence in your organization.

Workplace safety. All organizations, regardless of size, are required to meet minimum regulatory standards for workplace and workforce safety; however, high-performing organizations have processes in place to ensure that they not only meet these minimum standards but also go beyond a compliance orientation to a safety-first commitment. This includes designing proactive processes, with input from people directly involved in the work, to ensure a safe working environment.

Business continuity. Efforts to ensure the continuity of operations in an emergency should consider all facets of your operations that are needed to provide your products and services to customers, including supply-network availability. The specific level of operations that you will need to provide will be guided by your mission and your customers' needs and requirements. For example, a public utility is likely to have a higher need for services than organizations that do not provide an essential function. Nonprofit (including government) organizations whose mission is to respond to emergencies will have a high need for service readiness. You should also coordinate your continuity-of-operations efforts with your efforts to ensure the availability of data and information (item 4.2).

You should carefully plan how you will continue to provide an information technology infrastructure, data, and information in the event of either a natural or human-caused disaster. These plans should consider the needs of all your stakeholders, including the workforce, customers, suppliers, partners, and collaborators. The plans should be coordinated with your overall plan for business continuity and cybersecurity.

SOURCE: 2019–2020 Baldrige Performance Excellence Framework Criteria Commentary - This commentary provides brief summaries of the Baldrige Criteria for Performance Excellence categories and items. It also includes examples and guidance to supplement the notes that follow each Criteria item in the Baldrige Excellence Framework booklet. For additional free content, and to purchase the booklet, see www.nist.gov/baldrige/publications.