



Technical Editor Preparation

Reference Guide

Technical Editor Preparation

Baldrige Performance Excellence Program

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United States Department of Commerce

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Technical Editor Preparation

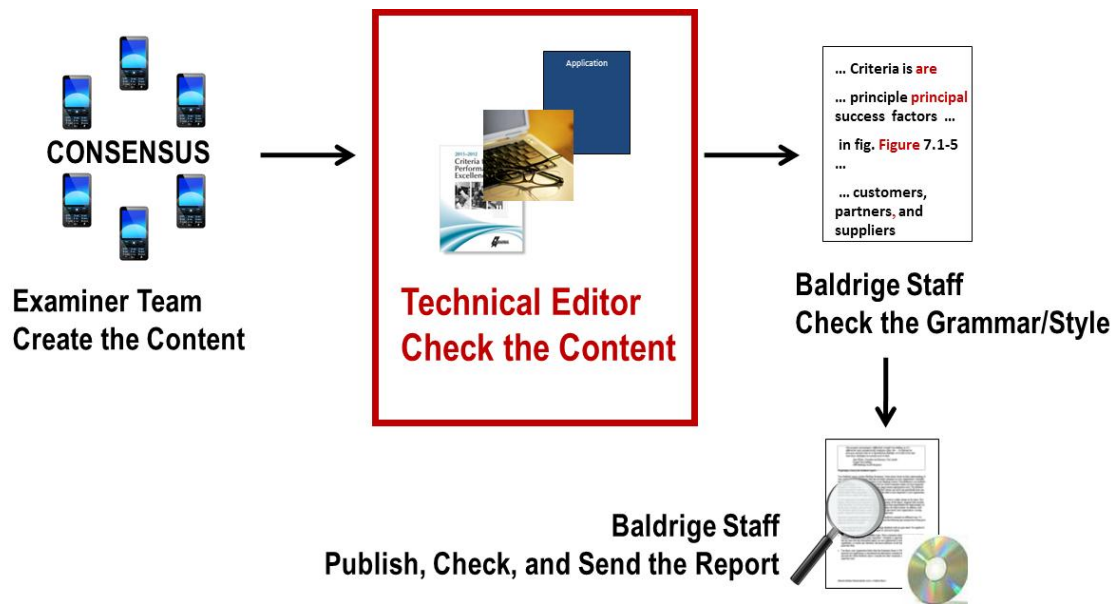
Overview

This reference guide was created to support technical editors of consensus review scorebooks. It orients examiners to the Baldrige Program's guidelines for and approaches to technical editing.

The edited scorebook results in a feedback report for a Malcolm Baldrige National Quality Award applicant. Ultimately, the purpose is to ensure high-quality feedback to applicants.

Roles and Responsibilities

The technical editor plays a key role in ensuring the quality of the feedback report for the customer. Technical editing includes two parts. The first encompasses a high-level review of the draft scorebook that focuses on conflicts, alignment of comments with scoring, and consideration of the applicant's view. The second encompasses a thorough quality check of the final scorebook.



In **part 1 tech editing**, the technical editor focuses on three areas of the draft scorebook:

- Comments that conflict with each other (or may sound to the applicant like they do)
- Alignment of comments with scoring
- Consideration of applicant's view (e.g., might comments appear to be harsh/prescriptive/deny benefit of the doubt?)

Due to limited time, in part 1, tech editors are not expected to check application data or thoroughly check all comments for adherence to the Criteria requirements and Comment Guidelines. This review is intended as a relatively high-level in-process check on whether the scorebook is likely to meet applicant expectations for high-quality feedback.

In **part 2 tech editing**, the technical editor focuses on five areas of the final, examiner-team produced scorebook:

- Facts
 - Criteria requirements
 - Content and organization of comments
 - Alignment of comments with scoring
 - Key themes
-

Part 1 Tech Editing

Check for Conflicts

Using the draft scorebook, check that

- within an item and each area to address, the content within strength and opportunity comments do not conflict
 - across items and categories, the content within strength and opportunity comments do not conflict
 - across the key themes and categories, the content within strength and opportunity comments and key theme comments do not conflict
-

Check for Alignment of Comments with Scoring

Using the Criteria Scoring Guidelines, determine if the applicant will understand how the examiner team came to its scores. Consider

- content of the comments against the Scoring Guidelines
 - balance of comments
 - number of bolded comments, indicating a role-model practice or critical flaw
-

Consider Applicant's View

Using the Criteria and application, consider whether

- comments are harsh in tone
 - comments are prescriptive
 - opportunity for improvement (OFI) comments deny benefit of the doubt
-

Note: As a technical editor, if you identify a potential problem with a comment or key theme, please suggest a fix rather than a statement to the team leader that something is less than perfect.

Part 2 Tech Editing

Check the Facts

Using the application, ensure the accuracy of

- names and terms
- abbreviations
- figure numbers
- references to data and results

Review the Criteria Requirements

Using the Criteria booklet and your Criteria knowledge, ensure that

- Criteria references are correct
- comments are in the correct category and item
- comments do not conflict
- feedback remains within the scope of the Criteria

Check for Appropriate Content and Organization

Using the Comment Guidelines and scoring guidelines, ensure that comments

- begin with a sentence expressing a single main point (the “nugget”), making sure there is only one nugget per comment
 - include one or two examples to illustrate the nugget
 - within examples, “show don’t (just) tell”* the applicant how it demonstrates the evaluation factors
 - express the relevance of the nugget to the applicant, making sure that the relevance relates to a key factor and that there is only one point of relevance per comment
 - are evaluative rather than prescriptive
 - focus on content rather than writing style or data presentation
 - include just enough Criteria language
-

-
- include just enough applicant language
 - are respectful in tone
 - appear in order of importance, with bolded comments first

* What’s the difference between just “telling” and “showing”?

In your comment, don’t just parrot what’s in the application. Show the applicant why the comment has some significance for its improvement journey. Ask yourself, “Why is this comment important for the applicant specifically, and not some generic observation?”

Check for Alignment of Comments (Content and Balance) with Scoring

Using the scoring guidelines and your Criteria knowledge, check for

- “around six” comments per item
 - numbers of strengths and OFIs that fit the item scoring range
 - language that fits the item scoring range
-

Edit the Key Themes

Using the item-level comments and the scoring band descriptors, ensure that key themes

- follow the Comment Guidelines
 - begin with a topic sentence, or “nugget,” expressing the main idea
 - include just enough examples to illustrate the “nugget”
 - are traceable to item-level comments
 - accurately reflect the data in item-level comments
 - include numbers of strengths and opportunities that are appropriate for the scoring band
 - do not conflict with each other
-

In Scope or Out of Scope?

What should you do?	Fix	Fix if you want	Ask the team leader/include in feedback to team leader (call NIST with concerns or process questions.)
1. The report refers to the “Scholarly Peer Research Review Process,” but the application refers to the “Scientific Peer Review Research Process.”	X		
2. A comment refers to “Figure 7.5-11,” but there are only 10 figures in item 7.5.	X		X
3. The report refers to “the applicant’s four workforce segments,” but the Organization Profile lists five segments.	X		X
4. The Criteria reference for a comment refers to the wrong requirement.	X		X
5. You find a comment on workforce engagement in category 4.	X		X
6. A comment refers to the applicant’s strategic planning process as “inadequate.”	X		X
7. A comment suggests that the applicant train workforce members in LSS.	X		X
8. The comment contains no examples from or references to information in the application.	X		X
9. A key theme consists entirely of one comment taken verbatim from category 5.			X ^a
10. An item includes six strengths and two OFIs. The score is 10–25 percent.	X ^b		X ^b
11. A strength comment and an OFI comment both refer to the same Criteria requirement.			X
12. According to your reading of the application, the score for item 3.2 is are much too high.			X ^c
13. The examiners have missed an OFI that you believe is crucial to the applicant’s creating a sustainable organization.			X ^e
14. The report consistently uses the phrase “data is” instead of “data are.”		X	
15. The font size seems wrong.		X	
16. The report sometimes uses “fig.,” sometimes “figure,” and sometimes “Figure.”		X	

^aThis type of key theme signals the examiners’ view that the point is so important to the organization that they want the CEO to see it. Technical editors, who were not part of the consensus discussion, should not eliminate these single-idea themes. If you have questions, call NIST.

^bA technical editor would edit comments but would not change the score or add comments. See the [Tech Editing Part 2 Step-by-Step Instructions](#) for details and more information. If you have questions, call the team leader or Baldrige staff.

^cChanging or adding to the evaluation is outside the technical editor’s role; see note b. If you have questions, call the team leader or NIST.

Tools and Samples

Tools

Check the [Examiner Resource Center](#) for the most recent versions.

- Tech Editing Part 1 Step-by-Step Instructions
- Tech Editing Part 2 Step-by-Step Instructions
- Comment Guidelines
- Scoring Band Descriptors
- Electronic Editing for Word 2007 and 2010
- Tech Editor Final Checklist

Resources provided with your editing assignment:

- Application
- Appropriate *Criteria for Performance Excellence* booklet

Samples

-
- [Check the Facts/Review the Criteria Requirements](#)
 - [Check for Appropriate Content and Organization](#)
 - [Check for Alignment with the Score and for Balance of Comments](#)
 - [Edit the Key Themes](#)
-

Check the Facts/Review the Criteria Requirements: Sample Tech Edit

7.2 Customer-Focused Outcomes

Your score in this Criteria item for the Consensus Review is in the 30–45 percentage range. (Please refer to Figure 5b, Scoring Guidelines for Results Items.)

STRENGTHS

- a(2) ~~Several results reflect TNB's results for customer satisfaction evidence its focus on customer satisfaction and loyalty. The number of products per household (a key reflection of customer engagement and progress toward gaining a dominant "share of the wallet") has increased 25% since 1998-1995 (7.2a[2]). In addition, from 2009 through second quarter 2010, the organization exceeded the benchmark for overall customer engagement (Figure 7.2-1014).~~ **[Fixed inaccurate Criteria reference, fact, and figure number; fixed potential conflict with first OFI]**
- a(2) Service Standard Performance (Figure 7.2-13) reflects TNB's success in providing Legendary Customer Service and exemplifies its customer-driven focus and operational excellence. For example, for the 13 months reported, ratings on the mystery shopper survey ranged from 4.8 to 5.0 (on a 5-point scale), statement timeliness remained at 100%, and Web site uptime was at 99%–100% for 10 of the months. **[Fixed inaccurate term and wrong data]**
- a(3) ~~Several workforce engagement and satisfaction survey results show sustained overall improvement for the past four years. The percentage of associates assigning a 4 or 5 rating (out of 5) for overall workforce satisfaction (Figure 7.3-1) steadily increased, surpassing the 75th percentile benchmark each year, with similar increases for associate engagement levels and willingness to refer a friend (Figure 7.3-2).~~ **[Moved to 7.3]**

OPPORTUNITIES FOR IMPROVEMENT

- a(1) **TNB's results do not yet reflect the impact of its response to customer satisfaction declines after the Widmark acquisition. Overall satisfaction levels increased declined in the second half of 2010 (Figures 7.2-1 through 7.2-4), as did satisfaction with CRS-CSR knowledge in all markets (Figure 7.2-6). Satisfaction with problem resolution was low for mortgage customers (Figure 7.2-8), and mortgages received more complaints than other products (Figure 7.2-910).** **[Fixed inaccurate Criteria reference, data, abbreviation, and figure number]**
- a The satisfaction levels of strategically significant customer groups show adverse trends and/or unfavorable comparisons. For example, the satisfaction of the ~~commercial mortgage~~ customer group/division (Figure 7.2-2) is below that of other customer segments and the overall benchmark (Figure 7.2-1), and the satisfaction of Mid-Career Life Cycle customers (Figure 7.2-4) recently declined. The percentage of customers in the ~~Neutral Advocate~~ stage declined in 2010, while the satisfaction of those considered Neutral increased (Figure 7.2-15). **[Fixed inaccurate data, terms, and figure number]**
- a Comparative data are not provided for ~~several~~ customer-focused performance results, such as ~~Overall Satisfaction (Figure 7.2-1), Overall Satisfaction by Customer Groups/Divisions (Figure 7.2-2), Satisfaction with Problem Resolution by Customer Groups/Divisions (Figure 7.2-8), and Complaints by Product (Figure 7.2-10).~~ This may hamper TNB in determining the impact of these results on overall customer satisfaction and subsequent purchasing activity. **[Fixed inaccurate fact]**

Check for Appropriate Content and Organization: Sample Tech Edit

5.2 Workforce Engagement

Your score in this Criteria item for the Consensus Review is in the 50–65 percentage range. (Please refer to Figure 5a, Scoring Guidelines for Process Items.)

STRENGTHS

- a(3) ~~TNB's workforce performance management system supports high performance work, considers workforce reward, recognition, and incentive practices, and reinforces achievement of action plans.~~ Through structured reward and recognition, TNB encourages high performance, associate retention, and agility in a competitive and growing marketplace. The PMDP is integrated with the SPP and is cascaded to all associates to coincide with individual performance reviews. The TEAR program (Figure 5.2-1), which is refined through the annual associate engagement survey, includes rewards for innovation and community service. **[Include just enough Criteria language.]**
- a(1), b(1) TNB's approach to determining workforce engagement and satisfaction supports its strategic advantage of a loyal and stable workforce. The annual organization-wide survey solicits perceptions on several engagement elements; algorithms identify their relative importance; and results are stratified by workforce segment, tenure, generation, and job type. Improvements include an online survey and focus groups. In addition, the HR Team tracks and analyzes absenteeism, retention, grievances, and safety. ~~TNB's approach to determining workforce engagement and satisfaction supports its strategic advantage of a loyal and stable workforce.~~ **[Begin with a sentence expressing a single main point.]**
- a(2) By fostering TNB fosters an engaged workforce, dialogue, and high-performance work, TNB enhances its ability to provide Legendary Service. Communication mechanisms, which have undergone multiple improvements, include weekly stand-up meetings, office huddles, and an internal blog with executives. ~~Although the description is cursory and vague, it seems that the~~ The PMDP enables associates to know what is expected of them and how their work affects the accomplishment of TNB's objectives and mission. **[Express the relevance of the nugget to the applicant; focus on content rather than writing style or data presentation.]**
- c(3) TNB provides career progression opportunities for its leaders through the LLDP, which includes cross-training of leaders and addresses workforce agility and performance. ~~Sixty high-potential LLDP associates receive organizational cross-training, confront potential HR challenges, and address workforce agility and performance in defined areas of importance.~~ The LLDP methodologies provide input to the SPP, aligning with core competencies, strategic challenges, and action plan accomplishment. Evaluation of feedback from these programs helps ensure their effectiveness. **[Include just enough applicant language.]**

OPPORTUNITIES FOR IMPROVEMENT

- a(2) **There is limited evidence of a systematic process or cycles of improvement to ensure that TNB benefits from the diverse ideas, cultures, and thinking of the workforce. For example, it is not clear how mechanisms such as Diversity Month are systematically used and evaluated. A systematic approach and cycles of improvement in these areas may enhance the organizational culture and support the implementation of the best ideas from anywhere, part of TNB's value of innovation.** [Place comments in order of importance, with bolded comments first.]

- ~~b(2) It is unclear how TNB relates workforce engagement assessment findings to key business results to identify opportunities for improvement in workforce engagement and business results. It is unclear that TNB systematically uses workforce engagement assessment findings, such as results from a 2011 associate engagement retreat and the associate engagement survey, to correlate business and engagement results and implement improvements. Also, it is not clear that action plans from the retreat were completed or improved workforce engagement. [Include just enough Criteria language.]~~
- ~~a(2) There is limited evidence of a systematic process or cycles of improvement to ensure that TNB benefits from the diverse ideas, cultures, and thinking of the workforce. For example, it is not clear how mechanisms such as Diversity Month are systematically used and evaluated. A systematic approach and cycles of improvement in these areas may enhance the organizational culture and support the implementation of the best ideas from anywhere, part of TNB's value of innovation.~~
- c Some elements of TNB's approach to workforce and leader development are in early stages of deployment. These include organizational performance improvement and innovation, transfer of knowledge, and reinforcement of new knowledge and skills. It is difficult to see how TNB expects to survive the This may be of particular significance as TNB plans for a predicted upturn in hiring. TNB would benefit from using timely survey feedback to improve the system. [Include one or two examples to illustrate the nugget; ensure that comments are respectful in tone; ensure that comments are evaluative rather than prescriptive.]

Check for Alignment of Comments with Scoring: Sample Tech Edit

7.1 Product and Process Outcomes

Your score in this Criteria Item for the Consensus Review is in the 50–65 percentage range.
(Please refer to Figure 5b, Scoring Guidelines for Results Items.)

STRENGTHS

- **a Several product performance results demonstrate that NuGrain meets the USDA customer’s requirements. Examples are the percentage of incentive award fees earned (Figure 7.1-2) and the number of patents awarded (Figure 7.1-3). In both measures, results have improved over the periods shown and exceed those of the best competitor.**
- **c NuGrain’s strategy implementation results support its sustainability. In 2009, NuGrain completed an average of 94 percent of near-term and 88 percent of long-term action plans (Figure 7.1-17), which are important for identifying opportunities for related research. Additionally, NuGrain met all of its near-term and 93 percent of its long-term completion rates for action plans related to building workforce capability and capacity.**
- **b(1) NuGrain demonstrates that it is reducing cycle times (Figures 7.1-10 and 7.1-16 through 7.1-18) as well as increasing efficiency and lowering costs. On cycle time measures, NuGrain improved over four- or five-year periods and outperformed the best competitor or best-in-class comparison. Total Project Cost vs. Baseline Project Cost (Figure 7.1-19) remained within the “good” range over five years, while the best competitor’s ratio was outside this range for three of those years. [Consider synthesizing two of the “b(1)” comments.]**
- **a NuGrain shows evidence of effective program execution- and of meeting the agricultural community’s requirements (Figure P.1-6). For example, External Peer Review Scores (Figure 7.1-11) improved for all strategic thrust areas and overall from 2003 to 2009, equaling or outperforming the best competitor’s scores since 2006. Over the same period, Stage-Gate Approval Rate (Figure 7.5-3) and Process Management Efficiency Ratio (Figure 7.1-13) also improved. Value increases for crop yields, savings on fertilizer and pesticide usage, and soil erosion (Figures 7.1-5 and 7.1-7) have outperformed the best competitor’s results since 2006. [Or consider synthesizing two of the “a” comments, which address customer and market segment requirements.]**
- ~~b(1) NuGrain demonstrates success in increasing efficiency and lowering costs. For example, Total Project Cost vs. Baseline Project Cost (Figure 7.1-19) remained within the “good” range over the five years shown, while the best competitor’s ratio was outside this range for three of those years.~~
- ~~a NuGrain’s results for savings through reduced fertilizer and pesticide use meet a requirement of the agricultural community market segment. The value increases for Crop Yields (Figure 7.1-5), savings on Fertilizer and Pesticide Usage, and Soil Erosion (Figure 7.1-7) all improved over the periods shown and have compared favorably with the best competitor’s results since 2006.~~

OPPORTUNITIES FOR IMPROVEMENT

- **a NuGrain does not provide results for some strategic thrust areas (i.e., enhancing the taste of healthier products, new or more useful products from plants, and fertilization in different growing environments); specialized research competencies (such as corn or wheat enhancements or crop nanotechnology); or engagement in high-risk research. Such results may help NuGrain build its competitive position in an uncertain funding environment.**

- b(1) NuGrain reports few results for work system effectiveness, and some process effectiveness results do not support being the premier government-owned laboratory system. Examples of the former are such as results for the effectiveness of the Information Management Contingency and Disaster Recovery Process, several processes performed by suppliers and partners, and the requirements of key suppliers (Figure P.1-7). The absence of these results may limit NuGrain's overall work system efforts. **[Consider splitting this comment into two, as shown.]**
- b(1) Results for several process effectiveness measures do not support the vision of being the premier government-owned laboratory system. For example, the percentage of milestones delivered on time (Figure 7.1-20) remains below the performance level of the best GOCO, and Commercialization Process Performance (Figure 7.1-21) is equal to the national research laboratory average.

Edit the Key Themes: Sample Tech Edit

KEY THEMES

Key Themes—Process Items

NuGrain Laboratories for Strategic Agricultural Research (NuGrain) scored in band 5 for process items (1.1–6.2) in the Consensus Review of written applications for the Malcolm Baldrige National Quality Award. For an explanation of the process scoring bands, please refer to Figure 6a, Process Scoring Band Descriptors.

An organization in band 5 for process items typically demonstrates effective, systematic, well-deployed approaches responsive to the overall requirements of most Criteria items. The organization demonstrates a fact-based, systematic evaluation and improvement process and organizational learning, including innovation, that result in improving the effectiveness and efficiency of key processes.

a. The most important strengths or outstanding practices (of potential value to other organizations) identified in NuGrain’s response to Process Items are as follows:

- NuGrain leverages its core competencies of systematic agricultural research, Process Portfolio Management, and Research Portfolio Management (Figure 6.1-1) to optimize the long-term life-cycle management of agricultural research contracts. Each strategic objective is aligned with a core competency. These core competencies are supported by the effective, systematic Work System Design Process (Figure 6.1-2) and Stage-Gate Process (Figure 6.2-1), which integrate voice-of-the-customer (VOC) needs and expectations into the design of key processes and work systems. **[Include examples; ensure traceability to item-level comments.]**
- NuGrain demonstrates management by fact through systematic approaches for data measurement, analysis, and use; the Measure Selection Process; and a schedule of organizational performance reviews aligned with contract, strategic, and other business needs (Figure 4.1-3). An example of the translation of data into meaningful information is senior leaders’ use of the SLT Scorecard to monitor progress on research projects and programs and achievement of the strategic plan. In addition, NuGrain uses R-37 survey data to identify potential products and in the development of requests for proposals. These processes allow NuGrain to improve organizational performance, incorporate cycles of refinement into current processes, and build on its strong business practices that provide systematic, repeatable results in business management. **[OK]**
- NuGrain focuses on customer-driven excellence by designing and improving systematic processes that support its customer-focused culture and its excellent and sustainable relationships with customers, suppliers, partners, and collaborators. For example, NuGrain uses a VOC approach to determine key customer requirements, and the Performance Evaluation Plan (PEP) includes a focus on customer requirements. NuGrain also develops staff capability to engage customers via Touch Point training, incorporates input from customers and partners into the strategic planning process (SPP), and uses the complaint process and the Irritant Program to address customer dissatisfaction. **[Begin with a sentence expressing a single main point.]**
- NuGrain’s well-executed approach to organizational learning supports its cultural focus on identifying problems, innovating solutions, and improving performance results. Approaches that are important to organizational success are continuously improved. For example, improvements resulting from the annual evaluation of the SPP include the revision of planning horizons, the introduction of the Strategic Alignment Document, and the formation of the MIG. Other examples are the Product and Service Offering Process, the VOC Process, workforce engagement and

communication processes, and approaches used to improve work processes. ~~In addition to shadowing or cross training with retiring employees, programs are developed to address gaps identified in workforce performance plans, and an extensive computer-based training library supports self-identified training needs and career development.~~ **[Include examples that illustrate the main point.]**

b. The most significant opportunities, concerns, or vulnerabilities identified in NuGrain’s response to Process Items are as follows:

- NuGrain does not appear to use systematic processes to determine organizational goals, performance projections, or comparative data. Goals are not included in the Strategic Alignment Document (Figure 2.2-1), and it is not evident how NuGrain chose the projections in this document and in results data. Additionally, it is not clear how the Comparative Data Selection Process ensures the effective use of comparative data or supports top-box comparisons and innovation. Systematic processes in these areas may help NuGrain achieve exceptional performance, as well as attain its vision of becoming the premier government-owned laboratory.
- NuGrain appears to have some gaps in deploying its approaches to engage customer and stakeholders groups. ~~For example, NuGrain does not appear to include representatives from diverse geographies and market segments in the potential customers who serve on the Product and Service Offering Committee (PSOC), and the Irritant Program does not appear to be deployed to all relevant customer/partner groups. It is not evident that the PEP Negotiation Process is deployed to non-USDA government agencies and Work for Others (WFO) program managers. In addition, it is not clear how NuGrain deploys work process management approaches to partners and collaborators. Without full deployment, NuGrain may limit its ability to leverage its excellent and sustainable relationships with customers, key stakeholders, partners, and collaborators.~~ **[Include examples to illustrate the main point; ensure traceability to item-level comments.]**
- Several operational processes do not appear to be fully deployed to all relevant workforce segments and geographic sites. For example, it is not clear whether workforce members in all types of jobs (e.g., scientists, farm operations staff) at all locations participate in volunteer activities. In addition, it is not clear that NuGrain deploys its four methods of improving work processes or its succession planning and career progression processes to all sites and workforce segments, including scientists in highly technical, specialized areas. ~~In addition, organizational learning is lacking in some sites and segments.~~ Without fully deploying key operational processes, NuGrain may miss opportunities to engage the entire workforce and demonstrate leadership in the communities it serves. **[Include examples that illustrate the main point; ensure that themes don’t conflict.]**

Key Themes—Results Items

NuGrain scored in band 5 for Results Items (7.1–7.6). For an explanation of the results scoring bands, please refer to Figure 6b, Results Scoring Band Descriptors.

For an organization in band 5 for Results Items, results typically address most key customer/ stakeholder, market, and process requirements, and they demonstrate areas of strength against relevant comparisons and/or benchmarks. Improvement trends and/or good performance are reported for most areas of importance to the Criteria requirements and the accomplishment of the organization’s mission. Performance projections for some high-priority areas are reported.

c. Considering NuGrain’s key business/organization factors, the most significant strengths found in response to Results Items are as follows:

- NuGrain’s ~~reports~~ favorable process effectiveness outcomes ~~are~~ aligned with the key customer requirements of reduced cycle times and effective program execution and indicate success in

building on its success factors of cycle time and strong business practices, as well as favorable product and financial outcomes. For example, Research Total Cycle Time (Figure 7.5-1) and External Peer Review Scores (Figure 7.5-2) show improvement in strategic thrust areas and overall, with performance equaling or outperforming that of the best competitor since 2005 and 2006, respectively. The Process Management Efficiency Ratio (Figure 7.5-4) improved from about 100 to approximately 1,700, with performance equal to or better than the best competitor's in the last two years. Over four years, Idea Well suggestions and implementations (Figure 7.5-16) increased from 586 to 1,129 and from 92 to 564, respectively. These results indicate NuGrain's success in building on its success factors of cycle time to bring research opportunities to commercialized use and strong business practices. Favorable financial outcomes include the percentage of Incentive Award Fees Earned (Figure 7.1-2), which almost doubled between 2003 and 2009 and exceeded the performance of the best USDA competitor each year, and the number of patents awarded for 2009 (Figure 7.1-3), which was more than four times the 2003 level and 17 percent above the best competitor's level. From 2003 to 2009, the value increase for Crop Yields (Figure 7.1-5) improved and outperformed the best competitor each year. Also, Funding Growth (Figure 7.3-1) improved steadily from \$20 million in 1997 to \$2.4 billion in 2009, surpassing the top two competitors. From 2003 to 2009, funding from other government agencies and the WFO program rose from zero to over 20 percent and about 8 percent, respectively (Figure 7.3-5). These results indicate success in addressing the strategic challenges of uncertain funding and competition with other contractors. **[Consider separating the two themes and putting the relevance at the beginning.]**

- Beneficial trends and favorable comparisons in several product and financial outcomes indicate success in addressing the strategic challenges of uncertain funding and competition with other contractors. Examples are the percentage of Incentive Award Fees Earned (Figure 7.1-2), which almost doubled over six years and outperformed the best USDA competitor each year, and the number of patents awarded for 2009 (Figure 7.1-3). From 2003 to 2009, the value increase for Crop Yields (Figure 7.1-5) improved and outperformed the best competitor each year, and Funding Growth (Figure 7.3-1) improved steadily from 1997 to 2009, surpassing the top two competitors. From 2003 to 2009, funding from other government agencies and the WFO program rose from zero to over 20 percent and about 8 percent, respectively (Figure 7.3-5).
 - Several customer-focused and workforce-focused results support NuGrain in attracting the brightest minds by addressing the opportunity to grow and learn, as well as other workforce engagement and satisfaction factors. USDA satisfaction with research program elements and with research project elements (Figures 7.2-1 and 7.2-2) improved significantly from 2005 to 2009. Engagement results overall and by segment (Figures 7.4-1 through 7.4-3) show improvement for all segments from 2005 to 2009, with the 2009 overall score exceeding the best peer comparison. During the same period, results for Engagement on Elements of Organizational Health (Figure 7.4-4) improved for all seven elements, with six equaling or surpassing the best peer's score. Also, NuGrain's Training Effectiveness by Assessment Level (Figure 7.4-8B) has been better than the best competitor's results since 2007. **[OK]**
- d. Considering NuGrain's key business/organization factors, the most significant opportunities, vulnerabilities, and/or gaps (related to data, comparisons, linkages) found in response to Results Items are as follows:**
- NuGrain is missing results in several areas. Examples are results for the strategic thrust areas of enhancing the taste of healthier products; new or more useful products from plants, including fiber-conversion products; and fertilization in different growing environments. In addition, NuGrain does not present results for its specialized research competencies or results related to the ability to engage in high-risk research. Results are not provided for measures of engagement

and loyalty of the agricultural and scientific communities or some workforce engagement and satisfaction factors, such as scientific freedom, access to state-of-the-art technology, the opportunity to publish and present, tools to do the job, work experience while in school, and job security. **[OK. Or add relevance?]**

- Comparisons are not provided for results related to the satisfaction of the scientific and agricultural communities, collaborating universities, or students (Figures 7.2-6 through 7.2-9) or for measures of fiscal accountability (Figure 7.6-2), regulatory and legal findings (Figure 7.6-3), and ethical behavior (Figure 7.6-4). In addition, some comparisons may not support NuGrain's vision to be the premier government-owned laboratory system. For example, comparisons for the number of articles published relative to USDA competitors (Figure 7.1-4) do not take into account the many laboratories outside the agricultural industry. Similarly, several financial results, such as Overall Performance to Budget (Figure 7.3-2) and Project Overhead Costs (Figure 7.3-6), are compared only to those of a very limited number of competitors. ~~To maintain its strategic advantage of strong results, NuGrain should look for better and more comparisons.~~ NuGrain may not be able to maintain its strategic advantage of strong results without robust and appropriate comparative data. **[Ensure that themes are evaluative, not prescriptive.]**