

## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

### **Task 18-2:**

The task purpose is to provide the HPI specialist with compelling information of the strategic and tactical advantages to be gained through integration of HPI practices and techniques in the organizational systems and processes.

The deliverable will be a succinct document to be used in communicating the cultural and bottom-line benefits to management of devoting sustained resources to implement proven HPI practices to realize improved organizational effectiveness as well as worker engagement and satisfaction, all leading to timely, quality mission success and stakeholder approval. Should be supported by relevant experiences and data from EFCOG member sites as well as other industries (medical, chemical, nuclear, aviation, etc.)

A quality tool to clearly and coherently communicate HPI advantages to management for ongoing resource allocation in developing and growing an effective HPI effort.

### **Task 18-6:**

An effective Strategic Plan is critical to the development of an effective HPI process. A Strategic Plan allows leaders and managers to benefit from a well-designed document that considers lessons learned from past Strategic Plan implementation efforts across DOE and in general industry.

This task will result in a best practice compilation of HPI Strategic Plans used at EFCOG member sites as well as examples from private industry. The resulting guidance and examples will provide HPI leadership/managers/practitioners with an additional tool to proactively drive process and performance improvements in their organization.

The HPI Strategic Plan document will:

- Create a roadmap for leaders/managers/practitioners to follow when designing their HPI process.
- Act as a mentor/coaching document, by way of examples, to allow leaders to consider the experience of others when implementing HPI at their facility.
- Interface with the EFCOG “Leadership and Challenges” document previously produced by the EFCOG HPI Task Group.
- The Strategic Plan document will allow leaders to estimate the funding needed to implement HPI by clearly delineating each step in the process of planning for an HPI program.

Research to find a business plan template and strategic plan template that could be used by EFCOG proved to be difficult. There are too many variables between mission, organizational structures, operating principles, missions, goals and outcomes to generate a common guide and template. Some sites are focused on research, others on production, and some have unique missions that do not fit into either category. Therefore, this white paper will attempt to provide ideas and concepts that may be

## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

used to formulate a business plan and subsequent strategic plan tailored to your site's mission and desired results.

To this end, one must start at the beginning; the philosophy of HPI.

*Human performance improvement (HPI) is not a program per se, such as Six Sigma, Total Quality Management, and the like. Rather, it is a set of concepts and principles associated with a performance model that illustrates the organizational context of human performance. The model contends that human performance is a system that comprises a network of elements that work together to produce repeatable outcomes. The system encompasses organizational factors, job-site conditions, individual behavior, and results. The system approach puts new perspective on human error: it is not a cause of failure, alone, but rather the effect or symptom of deeper trouble in the system. Human error is not random; it is systematically connected to features of people's tools, the tasks they perform, and the operating environment in which they work.*

**PREFACE: DOE-HDBK-1028-2009, Human Performance Improvement Handbook,  
Volume 1: Concepts and Principles**

A business plan is a detailed plan setting out the objectives of a business, the strategy and tactics planned to achieve them, and the expected profits, usually over a period of three to ten years [[dictionary.com](https://www.dictionary.com)].

Whereas Strategic planning is an organization's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy. It may also extend to control mechanisms for guiding the implementation of the strategy. Strategic planning became prominent in corporations during the 1960s and remains an important aspect of strategic management. It is executed by strategic planners or strategists, who involve many parties and research sources in their analysis of the organization and its relationship to the environment in which it competes [[Wikipedia.com](https://www.wikipedia.com)].

Research efforts did identify some common elements of [Business Plans](#) and [Strategic Plans](#). A list of commonalities are found in each section as well as insights from the EFCOG HPI Task Group working meetings held in 2018. This paper also contains several examples as attachments.

- [Attachment 1](#): Business Case Template ([www.ProjectManagementDocs.com](http://www.ProjectManagementDocs.com))
- [Attachment 2](#): Business Case for HPI Template
- [Attachment 3](#): INPO Human Performance Strategic Plan
- [Attachment 4](#): INPO New HU Leads Seminar - HU Strategic Planning PPT (including speaker notes)
- [Attachment 5](#): IAEA TECHDOC 1479 - Human performance improvement in organizations: Potential application for the nuclear industry
  - Appendix I: NEI Human Performance Process Map Details

## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

- Appendix II: communicating with a CEO regarding the value of Investment in HPI in the nuclear industry
- [Attachment 6](#): NAFT HP Roadmap Overview
- [Attachment 7](#): NERC HPI Strategic Initiative Worksheet
- [Attachment 8](#): Example, Hanford Human Performance Improvement Lessons Learned (2007)
- [Attachment 9](#): Example, Idaho National Laboratory Human Performance Improvement Strategic Plan
- [Attachment 10](#): Example, INL Strategic Plan: Fostering Excellence in Human Performance
- [Attachment 11](#): Example, Department Of Energy Safety Culture Improvement Panel Strategic Plan
- [Attachment 12](#): Example, LANL Operational Excellence Implementation and Sustainability Plan (2015)
- [Attachment 13](#): Example, LANL HPI Implementation and sustainability plan (2015)
- [Attachment 14](#): Los Alamos National Laboratory (LANL) Human Performance Improvement (HPI) Practitioner Description
- [Attachment 15](#): Practitioner's Guide to Human Performance in the BioPharm Industry

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## Business Plans

**A business plan should do** the following

- In its simplest form, a **business plan is a guide**—a roadmap for your business that outlines goals and details how you plan to achieve those goals.
- A **business plan** is a formal statement of business goals, reasons they are attainable, and plans for reaching them. It may also contain background information about the organization or team attempting to reach those goals. Written business plans are often required to obtain a bank loan or other financing.
- **Business plans** may target changes in perception and branding by the customer, client, taxpayer, or larger community. When the existing business is to assume a major change or when planning a new venture, a 3 to 5 year business plan is required, since investors will look for their investment return in that timeframe.
- Recognize that there are **different types of business plans**. Business plans guide owners, management and investors as businesses start up and grow through stages of success. A business owner or prospective business owner writes a business plan to clarify each aspect of his business.
- A **business plan** includes objectives to anticipate and prepare for growth. Savvy business owners write a business plan to guide management and to promote investment capital. Types of business plans include, but are not limited to, start-up, internal, strategic, feasibility, operations and growth plans.
- **Internal business plans** target an audience within the business. Write an internal business plan to evaluate a proposed project. Describe the company's current state, including operational costs and profitability. Calculate if and how the business will repay any capital needed for the project. Provide information about project marketing, hiring and tech costs. Include a market analysis illustrating target demographics, market size and the market's positive effect on the company income.
- A **strategic business plan** provides a detailed map of a company's goals and how it will achieve them, laying out a foundational plan for the entire company. According to the website, Clean Washington Center, a strategic business plan includes five elements: business vision, mission statement, definition of critical success factors, strategies for achieving objectives and an implementation schedule. A strategic business plan brings all levels of the business into the big picture, inspiring employees to work together to create a successful culmination to the company's goals.

**A business plan should contain** the following

- An **Executive Summary** - The executive summary should provide a quick overview of the problem your business solves, your solution to the problem, the business's target market, key financial highlights, and a summary of who does what on the management team.
- An "**elevator pitch**" is a short summary of the plan's executive summary. This is often used as a teaser to awaken the interest of potential investors, customers, or strategic partners. It is called

## EFCOG HPI Task Group white paper: Business Plans (18-2) and Strategic Plans (18-6)

an elevator pitch as it is supposed to be content that can be explained to someone else quickly in an elevator. The elevator pitch should be between 30 and 60 seconds.

- A **pitch deck** is a slide show and oral presentation that is meant to trigger discussion and interest potential investors in reading the written presentation. The content of the presentation is usually limited to the executive summary and a few key graphs showing financial trends and key decision making benchmarks. If a new product is being proposed and time permits, a demonstration of the product may be included.
- **Opportunity** - This section answers these questions: What are you actually selling and how are you solving a problem (or “need”) for your market? Who is your target market and competition?
  - The opportunity section of your business plan is where the real meat of your plan lives.
  - This is where you will describe in detail the problem that you’re solving, your solution, who you plan to sell to, and how your product or service fits into the existing competitive landscape. You’ll also use this section of your business plan to demonstrate what sets your solution apart from others, and how you plan to expand your offerings in the future.
  - Readers of your business plan will already know a little bit about your business because they read your executive summary. But, this chapter is still hugely important because it’s where you expand on your initial overview, providing more details and answering additional questions that you won’t cover in the executive summary.
- **The problem and solution**
  - Start this chapter by describing the problem that you are solving for your customers. What is the primary pain point for them? How are they solving their problems today? Maybe the existing solutions to your customer’s problem are very expensive, or perhaps they are cumbersome. For a business with a physical location, perhaps there aren’t any existing solutions within reasonable driving distance.
  - Defining the problem you are solving for your customers is far and away the most critical element of your business plan and crucial for your business success. If you can’t pinpoint a problem that your potential customers have, then you might not have a viable business concept.
  - To ensure that you are solving a real problem for your potential customers, a great step in the business planning process is to get away from your computer and actually go out and talk to potential customers. Validate that they have the problem you assume they have, and then take the next step and pitch your potential solution to their problem. Is your solution a good fit for them?
  - Once you have described your target market’s problem, the next section of your business plan should describe your solution. Your solution is the product or service that you plan on offering to your customers. In this section, you should describe your solution in detail. What is it and how is it offered? How exactly does it solve the problem that your customers have?
  - For some products and services, you might want to describe use cases. These use cases give examples of how a customer will interact with your solution and how it makes the customer’s life better.

## EFCOG HPI Task Group white paper: Business Plans (18-2) and Strategic Plans (18-6)

- **Products and Services** - The products and services chapter of your business plan delves into the core of what you are trying to achieve. In this section, you will detail the problem you are solving, how you are solving it, the competitive landscape, and your business's competitive edge. Depending on the type of company you are starting, this section may also detail the technologies you are using, intellectual property that you own, and other key factors about the products that you are building now and plan on building in the future.
- **Execution** - How are you going to take your opportunity and turn it into a business? This section will cover your marketing and sales plan, operations, and how you're going to measure success.

**The EFCOG HPI Task Group identified** some of the elements to consider when building a HPI business case.

1. HPI provides cost savings.
  - a. FENOC template demonstrated cost savings from avoiding rework, consequences that involve investigations, etc.
  - b. SRS looked at consequences of investigations. Select event and determine "cost" of that event. Look at corrective actions, procedure change labor costs, training. Cost was approximately \$30K.
  - c. ORNL looked at PISA (Latent errors in safety analysis): 200K+.
  - d. Compiled costs for recurring PMs, recurring events, etc.
  - e. Loss of confidence from Field/Site Office, Headquarters, Public perception, reputation, inability to achieve the mission.
2. Program replacement
  - a. DOE no longer has a contract with INPO to provide training (now a cost for service contract), reference materials, and is providing a limited number of assist visits.
  - b. Continued Funding is available for the near term (5 years)
3. Policy relevancy:
  - a. DOE Standard, Human Performance Improvement Handbook, DOE-HDBK-1028-2009, is a good foundation, but has gaps.
  - b. The HPI industry has advanced and learned much that is not included in this handbook.
4. Co-Dependency with other DOE programs
  - a. Accident Investigations ([DOE O 225.1B](#))
    - i. SRS has a crosswalk between ORPS and HPI Anatomy of an event.
  - b. CAS: Contractor Assurance System ([DOE O 226.1B](#), [Implementation of Department of Energy Oversight Policy](#))
  - c. Conduct of Engineering (*multiple DOE documents*)
  - d. Conduct of Operations ([DOE O 422.1](#))
  - e. Human Capital Management Accountability Program ([DOE O 328.1](#))
  - f. Integrated Safety Management Policy ([DOE P 450.4 A](#))
  - g. Laboratory Directed Research and Development ([DOE O 413.2C](#))
  - h. Maintenance Management Program for DOE Nuclear Facilities ([DOE O 433.1B](#))
  - i. Occurrence Reporting and Processing of Operations Information ([DOE O 232.2A](#))
  - j. 2018 [NFPA 70E Standard](#),

**EFCOG HPI Task Group white paper:**  
**Business Plans (18-2) and Strategic Plans (18-6)**

- i. Article 110.1 (H) - This new article explores the "human error concept" added to both job safety analysis and job planning in Annex Q. When filling out a JSA or a job safety plan, a new "human error concept" is to be applied to workplace electrical safety under the concept of a human performance factor. Studies have indicated that human error often is a root cause of incidents, which is why the addition is of high value.
  - ii. Annex Q, Human Performance and Workplace Electrical Safety: This new annex addresses how the concept of human performance can be applied to workplace safety. Studies by high-risk industries indicate human error is often a cause of incidents. The premise of this annex is that human error is a frequent cause of electrical incidents.
- 5. HPI supports High Reliability Organizations (HRO)
  - a. Remove bureaucracy, burden, and cumbersome ways of doing things
  - b. Business start by focusing on critical step(s) and event-free activities
  - c. Events place DOE facilities in the limelight (not in a good way) and tarnish corporate reputations.
  - d. SRS uses STAR (contractor assurance trending)

# EFCOG HPI Task Group white paper: Business Plans (18-2) and Strategic Plans (18-6)

## Strategic Plans

**A strategic plan should do** the following

- **Strategic planning** is an organization's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy. It may also extend to control mechanisms for guiding the implementation of the strategy. Strategic planning became prominent in corporations during the 1960s and remains an important aspect of strategic management. It is executed by strategic planners or strategists, who involve many parties and research sources in their analysis of the organization and its relationship to the environment in which it competes
- **Strategic planning** is a process and thus has inputs, activities, outputs and outcomes. This process, like all processes, has constraints. It may be formal or informal and is typically iterative, with feedback loops throughout the process. Some elements of the process may be continuous and others may be executed as discrete projects with a definitive start and end during a period. Strategic planning provides inputs for strategic thinking, which guides the actual strategy formation. The end result is the organization's strategy, including a diagnosis of the environment and competitive situation, a guiding policy on what the organization intends to accomplish, and key initiatives or action plans for achieving the guiding policy.

**A strategic plan should contain** the following

- Michael Porter wrote in 1980 that formulation of competitive strategy includes consideration of four **key elements**:
  - Company strengths and weaknesses;
  - Personal values of the key implementers (i.e., management and the board);
  - Industry opportunities and threats; and
  - Broader societal expectations
- Strategic planning **activities** include meetings and other communication among the organization's leaders and personnel to develop a common understanding regarding the competitive environment and what the organization's response to that environment (its strategy) should be. A variety of strategic planning tools (described in the section below) may be completed as part of strategic planning activities.
- The **output** of strategic planning includes documentation and communication describing the organization's strategy and how it should be implemented, sometimes referred to as the strategic plan. The strategy may include a diagnosis of the competitive situation, a guiding policy for achieving the organization's goals, and specific action plans to be implemented. A strategic plan may cover multiple years and be updated periodically.

The organization may use a variety of methods of measuring and monitoring progress towards the objectives and measures established, such as a balanced scorecard or strategy map.

  - A **strategy map** is a diagram that is used to document the primary strategic goals being pursued by an organization or management team. It is an element of the documentation associated with the Balanced Scorecard, and in particular is characteristic of the second generation of Balanced Scorecard designs that first



## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

appeared during the mid-1990s. The first diagrams of this type appeared in the early 1990s, and the idea of using this type of diagram to help document Balanced Scorecard was discussed in a paper by Drs. Robert S. Kaplan and David P. Norton in 1996

- Marketing and sales
  - The marketing and sales plan section of your business plan details how you plan to reach your target market segments, how you plan on selling to those target markets, what your pricing plan is, and what types of activities and partnerships you need to make your business a success.
  - Before you even think about writing your marketing plan, you must have your target market well-defined and have your buyer persona(s) fleshed out. Without truly understanding who you are marketing to, a marketing plan will have little value.
- Promotion
  - With pricing and positioning taken care of, it's time to look at your promotion strategy. A promotion plan details how you plan on communicating with your prospects and customers. Remember, it's important that you'll want to measure how much your promotions cost and how many sales they deliver. Promotional programs that aren't profitable are hard to maintain in the long term.
  - Here are a few areas that you might consider as part of your promotional plan:
    - Packaging - If you are selling a product, packaging of that product is critical. If you have images of your packaging, including those in your business plan is always a good idea. Be sure the packaging section of your plan answers the following questions:
      - Does your packaging match your positioning strategy?
      - How does your packaging communicate your key value proposition?
      - How does your packaging compare to your competition?
    - Advertising - Your business plan should include an overview of the kinds of advertising you plan to spend money on. Will you be advertising online? Or perhaps in traditional media? A key component to your advertising plan is your plan for measuring the success of your advertising.
    - Public relations - Getting the media to cover you can be a great way to reach your customers. Getting a prominent review of your product or service can give you the exposure you need to grow your business. If public relations is part of your promotional strategy, detail your plans here.
    - Content marketing - A popular strategy for promotion is engaging in what is called content marketing. Content marketing is what Bplans is all about. It's when you publish useful information, tips, and advice—usually made available for free—so that your target market can get to know your company through the expertise that you deliver. Content marketing is about teaching and educating your prospects on topics that they are interested in, not just on the features and benefits that you offer.
    - Social media - These days, having a social media presence is essentially a requirement for the vast majority of businesses. You don't need to be on every

## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

social media channel, but you do need to be on the ones that your customers are on. More and more, prospects are using social media to learn about companies and to find out how responsive they are.

- Strategic alliances - As part of your marketing plan, you may rely on working closely with another company in a form of partnership. This partnership may help provide access to a target market segment for your company while allowing your partner to offer a new product or service to their customers. If you have partnerships already established, it's important to detail those partnerships in your business plan.

The **EFCOG HPI Task Group identified** some of the elements to consider when building a HPI strategic plan.

- Self education
  - Learn HPI yourself
  - Benchmarking organizations implementing HPI
    - Have them then come look at your program as you implement it.
  - Understand the relationship between Organizational culture, Safety Culture, Just Culture (etc.) and HPI
  - Understand ISMS
- Build the Business Case.
  - Why is it good business to use HPI
- Understand your organization
  - Observe, Listen and take notes.
    - Get to know the customer/end user before making suggestions
    - Build relationships
    - What other partnerships already exist (stakeholders, vendors, other DOE facilities, NNSA, etc.)
  - Perform GAP analysis (look at the data)
    - Recognize where HPI is already in use. Activities may be called something else so look for the HPI principles, tools, and behaviors in action
    - Determine current health of HPI program
  - Chain of Command: Identify "Formal Touch Points" – these may be different than the influencers
  - Alliance Building: Identify and get to know key "thought influencers" in each organization (or program).
    - VPP
    - ISM
    - CAS/QPA (Lessons Learned / OPEX, Observations, Issues Management, trending, Evaluations, investigations, assessments, etc.)
    - Leadership Committees
- Establish a Plan
  - Determine a scope:
    - Current conditions

## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

- Goals
- End state – and criteria to know when you are there
- Position description
  - Define the roles and responsibilities for the “HPI Site Lead.”
    - Responsible for the overall implementation of HPI at the site
    - Full-Time, Part-Time, or collateral duty
    - Attends the DOE (or INPO) HPI Site Leads workshop
    - Networks with DOE facilities HPI Site Leads and other entities practicing HPI
    - EFCOG HPI Working Group site representative
  - Define the roles and responsibilities for the “HPI Practitioners” at the site.
    - Human Performance Improvement (HPI) practitioners are division-, group-, and/or team-level advocates who possess a level of Human Performance knowledge, skills, and understanding that allows them to apply concepts within their organization to affect positive outcomes.
    - Practitioners are employees trained in HPI Fundamentals and their application in that employees respective business unit
    - Part-Time, or collateral duty
    - Proficient in explaining HPI concepts, principles, error modes, error likely situations, HPI tools, etc.
    - Advocate and cheerleader for HPI at their site
    - If utilized, represents organization at Site HPI Steering Committee (or equivalent)
    - HPI practitioners are an important part of the facilities overall HPI strategy. Their role is to leverage opportunities to integrate—rather than add-on—HPI techniques and principles into their organization to prevent events and improve the systems in which employees must work. They also serve as a conduit to the rest of the HPI networking community at the facility
- HPI is not an additional activity
  - Integrate (weave) into the fabric,
    - Integrate into existing programs (work planning & control looking at human factors)
    - Integrate into Job Hazard analysis
    - Challenges may exist with integrating with “Conduct of Operations.” For example: “Concurrent Dual Verification (CDV) = Concurrent Verification” in DOE Handbook. New HPI tools may be introduced that are similar or new to CON Ops.
    - Intergrade into BBS, Pre-Job Briefing programs (SAFER)
  - Leverage existing “related” programs (ISMS, QPA, etc.)
- Identify Training needs
  - Formal

## **EFCOG HPI Task Group white paper:** **Business Plans (18-2) and Strategic Plans (18-6)**

- Informal
- Website with learning resources
- Awareness (introduction at new employee, general employee on-boarding training)
- Sustaining training (recurring, event-based refresher)
- Design a communication strategy
  - Traditional Communication methods: Newsletters, presentations, etc.
  - Socialization: Meetings, working the crowd, finding opportunities to interact/support
  - Website, SharePoint, etc.
  - Celebrate success
    - Link success to the behaviors that are related to mission principles
    - Recognize the importance/value of the people who “made it happen.”
- Establish a timeline
  - You may need a “Change Management” Plan (is this duplicate of a strategic plan)
  - Tactical, Implementation plan (Roll-out plan)
  - Consider pilot (small portion of the organization)Identify milestones
  - Evaluate if actions worked, adjust as needed (some actions may not work as well as you thought it would)
    - Plan, do, check, and adjust
  - Identify resources require

# Attachment 1: Business Case Template

## **PROJECT MANAGEMENT DOCS** *Free Project Management Templates*

### **BUSINESS CASE TEMPLATE**

This Business Case Template is free for you to copy and use on your project and within your organization. We hope that you find this template useful and welcome your comments. Public distribution of this document is only permitted from the Project Management Docs official website at:  
[www.ProjectManagementDocs.com](http://www.ProjectManagementDocs.com)

**BUSINESS CASE**  
**<PROJECT NAME>**

**COMPANY NAME**  
**STREET ADDRESS**  
**CITY, STATE ZIP CODE**

**DATE**

Double-click on image to open PDF document

**Attachment 2:  
Business Case for HPI Template**

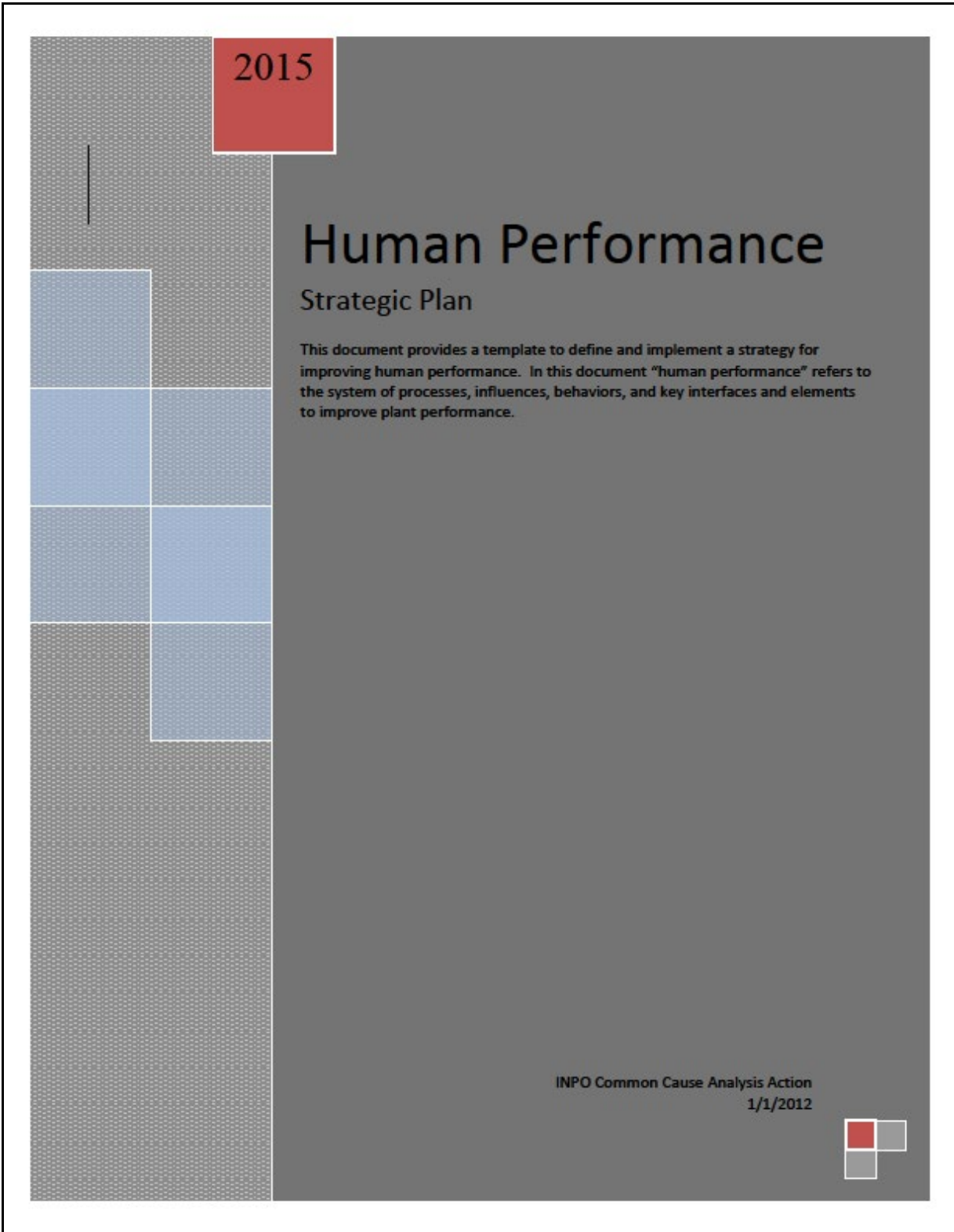
**BUSINESS CASE  
FOR  
HUMAN PERFORMANCE IMPROVEMENT (HPI) IMPLEMENTATION**

**DOE/NNSA/CNS  
STREET ADDRESS  
CITY, STATE ZIP CODE**

**DATE: DECEMBER 20, 2017**

Double-click on image to open PDF document

**Attachment 3:  
INPO Human Performance Strategic Plan & Template**



Double-click on image to open PDF document

**Attachment 4:**

**INPO New HU Leads Seminar - Human Performance Strategic Planning PPT (with speaker notes)**



Double-click on image to open PDF document



**Attachment 5:  
IAEA TECHDOC 1479 HPI in Organizations**

IAEA-TECDOC-1479

***Human performance  
improvement in organizations:  
Potential application for the  
nuclear industry***



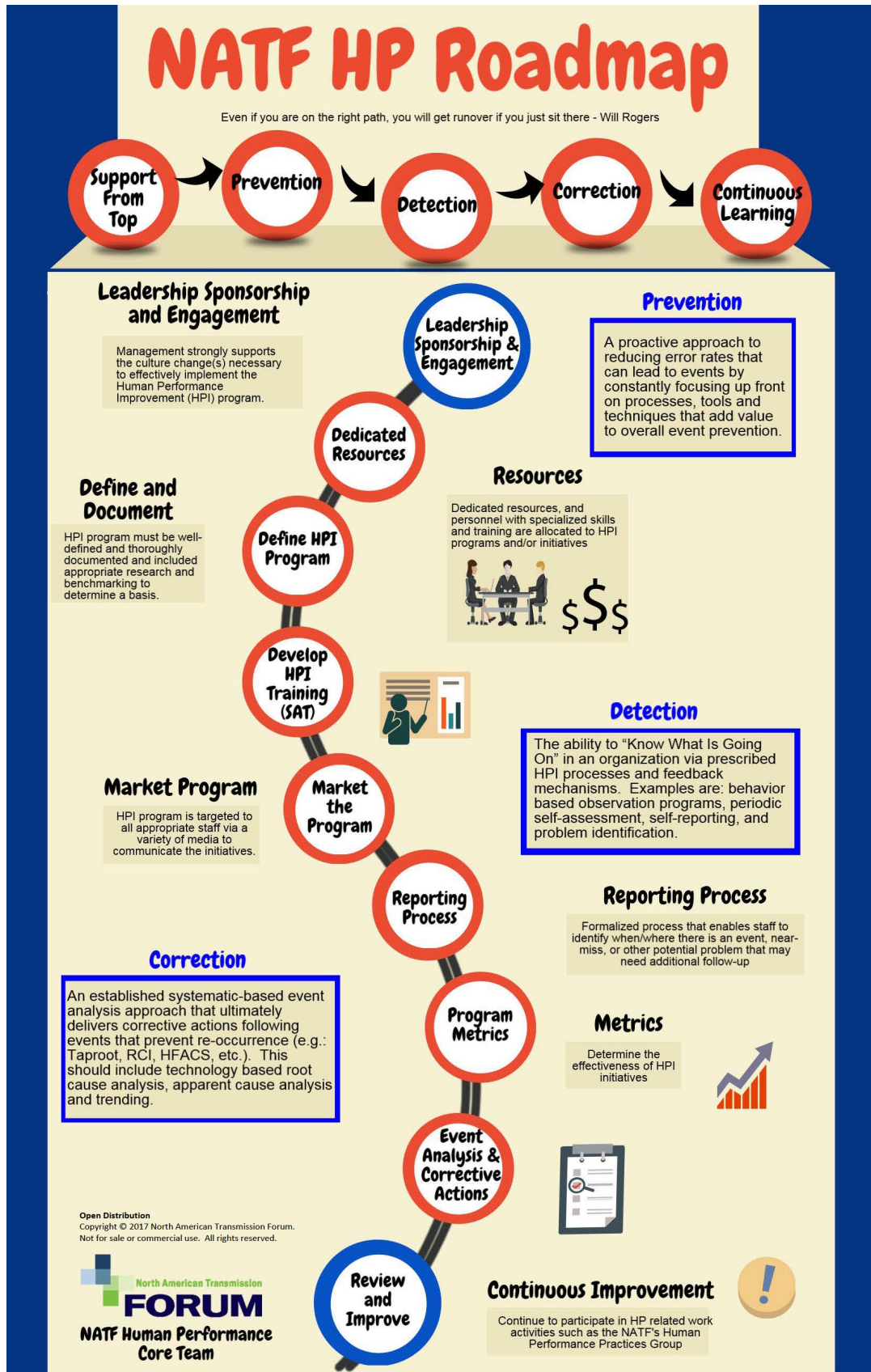
**IAEA**  
International Atomic Energy Agency

November 2005

Double-click on image to open PDF document

# Attachment 6: NAFTA HP Roadmap

(<http://www.natf.net/docs/natf/documents/resources/natf-hp-roadmap-overview.pdf>)



Double-click on image to open PDF document

# Attachment 7: NERC HPI Strategic Initiative Worksheet

NERC HU Conference

Engaging and Influencing Senior Leaders: Taking a Deeper Dive

3/29/18

## Strategic Initiative Worksheet

### Section 1

1. Briefly describe the strategic culture change opportunity you would like to address.

2. Who are the key leaders/decision makers you need to influence.

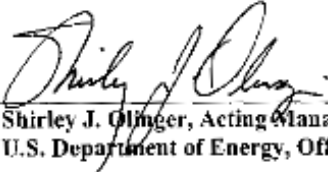
3. What factors in the system – internal or external – might it be important to take into account?

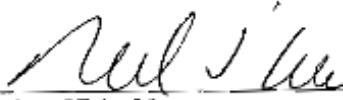
Double-click on image to open PDF document

Attachment 8: EXAMPLE  
Hanford Human Performance Improvement Lessons Learned (2007)

**Hanford**  
**Human Performance Improvement (HPI)**  
**Lessons Learned**

**April 2007**

Approved by:   
Shirley J. Olinger, Acting Manager  
U.S. Department of Energy, Office of River Protection

  
Keith A. Kleio, Manager  
U.S. Department of Energy, Richland Operations Office

**Attachment 9: EXAMPLE**  
**INL Human Performance Strategic Plan (DRAFT)**

Document ID: PLN-4112  
Revision ID: 0  
Effective Date: DRAFT

**Plan**

**INL Human Performance  
Improvement  
Strategic Plan**



The INL is a U.S. Department of Energy National Laboratory  
operated by Battelle Energy Alliance.

Double-click on image to open PDF document

## Attachment 10: EXAMPLE

### INL Strategic Plan: Fostering Excellence in Human Performance

## Strategic Plan: Fostering Excellence in Human Performance

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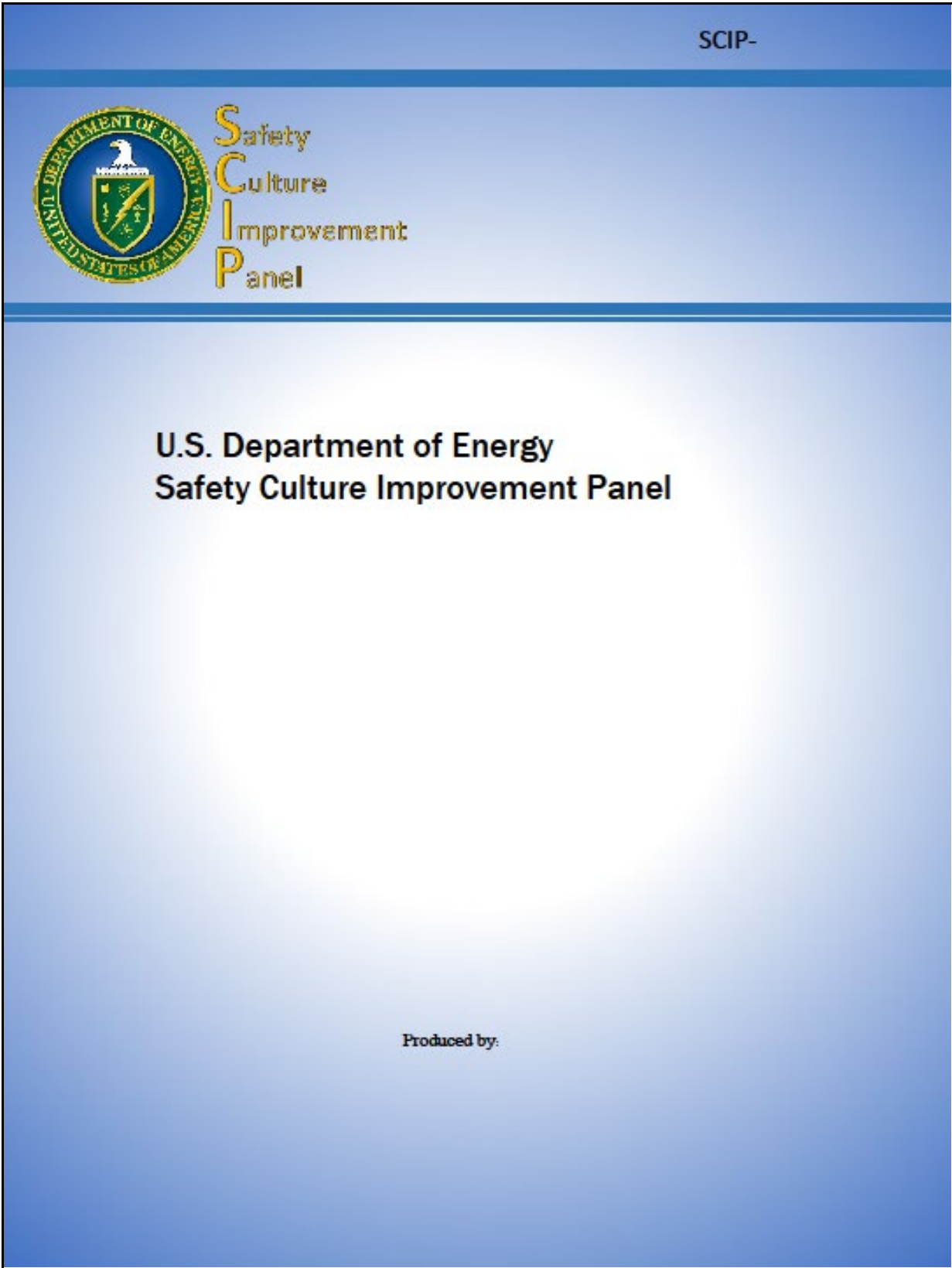
**Strategic Goal:** Foster excellence in human performance throughout the Lab to realize the full potential of our staff and in turn, optimize organizational maturity and mission outcomes.

**Tactical Objectives:**

1. Stage 1: Obtain senior management commitment:
  - a. Identify senior management sponsor(s)
  - b. Acquire endorsement of Lab's entire management team
  - c. Attain support for adequate staffing, equipment, and budget
  - d. Periodically reassess (senior) management's commitment
2. Stage 2: Establish steering committee:
  - a. Establish charter to clarify objectives, roles, responsibilities, activities, and membership
  - b. Train committee on fundamentals of human performance
  - c. Arrange senior manager to chair committee
3. Stage 3: Assess current status:
  - a. Conduct baseline assessment of current performance against standards of excellence
    - i. Training programs
    - ii. Procedure development and revision processes
    - iii. Work organization
    - iv. Work control processes
    - v. Leadership practices
    - vi. Communication methods and practices
  - b. Perform Pareto analysis to identify specific human performance improvement projects (Limit to 2 – 3 projects at a time to enable success)
  - c. Conduct self-assessments of human performance on a recurring frequency
  - d. Develop appropriate actions to close noted gaps
  - e. Monitor progress
4. Stage 4: Develop a human performance improvement strategy and plan based on gap analysis
  - a. Agree on improvement focus areas, goals
  - b. Develop tangible objectives, clear timetables, available resources, and responsibilities
  - c. Diagnose causes of problems/projects identified during the assessment
  - d. Prioritize HPI tool use training
  - e. Align Lab and function (roles?) policies with strategic goal to eliminate inconsistencies and barriers (4, #5); incorporate HPI tool use into activity instruction material, e.g., LOTO
  - f. Disseminate expectations for error-prevention techniques, unacceptable/at-risk behavior, and standards for all levels and functions (seek broad stakeholder input)
  - g. Develop human performance information system integrating organizational, leadership, and work site data associated with previous errors and events (???)

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**Attachment 11: EXAMPLE**  
**DOE Safety Culture Improvement Panel (SCIP) Strategic Plan**



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## Attachment 12: EXAMPLE

### LANL Operational Excellence Implementation and Sustainability Plan (2015)

#### Operational Excellence Implementation and Sustainability Plan

##### Background

In March of this year, ADESH began evaluating safety performance at LANL as well as the identified causes of safety incidents. The result of this evaluation was a realization that going back to the basics of ISM and VPP, and more specifically focusing on Line Management Ownership and Employee Engagement, was critical to operational improvements. This realization coupled with an increased focus on the application of tools like Human Performance Improvement HPI, Behavior-based Safety, and welcoming a questioning attitude became the cornerstone of a communications campaign entitled, Safety Leadership.

In May, the Los Alamos National Laboratory (LANL) experienced an event that re-enforced the need to redouble its efforts in implementing Integrated Safety Management (ISM). The arc flash event resulted in one employee being severely injured and hospitalized for several weeks, another employee being hospitalized for two nights and several other co-workers being impacted by the direct event. LANL as a whole was impacted by the severity and the event. This event coupled with a dump truck hitting a transmission line a short time after the arc flash event served to re-enforce the findings of the Joint Accident Investigation Team that applying human performance improvement to assist in the increased focus on implementing the basics of ISM and VPP. As a collateral benefit, when HPI is implemented it also serves to build trust and communication between workers and line management through empowerment of both of these roles. This empowerment is critical to increased trust, and hence, an improved safety culture overall.

##### Scope

This plan outlines the actions that need to be taken at an institutional and organizational level to re-invigorate and implement HPI at LANL. A project plan for the first year of this effort, coupled with benchmarking across the complex will lay the groundwork for the out-years and a 5 year Operational Excellence plan will be the end result of this first years efforts. It should be mentioned that reaching Operational Excellence will be a journey. It will require a significant focus, over a period of years, coupled with a clear dedication by management and leaders to stay the course. It will be difficult to grow and maintain improved performance without this dedication.

##### Approach

To develop this plan ADESH worked closely with HPI SMEs, evaluated on-going initiatives, existing tools and programs to ensure an integrated approach that leverages existing systems tools and processes. The end result is a two-pronged approach – institutional infrastructure and organizational implementation. The critical institutional infrastructure needs (e.g., staffing, training, success metrics, communications plan, etc.) are clearly defined in the attached project plan. They are necessary; however, by themselves, are not sufficient. As a result, coupled with the institutional infrastructure are organizational objectives that must be defined by each Associate Directorate for their organization. This includes efforts such as establishing Learning Teams within each organization and then consistently utilizing them to identify, improve and evaluate organizational successes and challenges. These efforts, continually using the tools, terminology and approaches that HPI provides will be organization dependent and progress will have to be continually evaluated by managers. Recognizing that there is no



## Attachment 13: EXAMPLE

### LANL HPI Implementation and Sustainability Plan (2015)

The Challenge		Desired Outcome	
Recent evaluations of LANL events have clearly identified the need to re-invigorate the Human Performance Improvement (HPI) initiative within the Institution. Subject Matter Experts (SME) have identified key areas to focus on and have readily identified actions that must be taken at the institutional and organizational levels. Overall, four key components have been identified: Implementation of HPI concepts across the 5 core functions of Integrated Safety Management (ISM); Leadership Training and Commitment for Managers; Increased Employee Engagement; and overall improvement to the implementation of Integrated Work Management.		The goal of this plan is a sustainable HPI program that demonstrates improved application and demonstration of LANL as a learning organization through the application of Human Performance Improvement principles within the Integrated Safety Management System and Voluntary Protection Program tenants. The desired outcome is a decrease in the number and severity of incidents through the improved capacity within the system to tolerate and learn from negative outcomes; active learning and sharing of positive outcomes and incidents; active employee engagement and strong management and employee leadership during all 5 of the ISM core functions.	
Action	Required Actions	Responsible Party	Due Date
A. Clearly define resource needs at the institutional level to re-invigorate the HPI program	<ol style="list-style-type: none"> <li>1. Define institutional HPI/Organizational Learning staffing numbers and appropriate job levels                             <ol style="list-style-type: none"> <li>a. Internal Position                                     <ol style="list-style-type: none"> <li>i. Post personnel</li> <li>ii. Interview</li> <li>iii. Hire</li> </ol> </li> <li>b. External                                     <ol style="list-style-type: none"> <li>i. Identify needs (see B3c below)</li> <li>ii. Procure resources</li> </ol> </li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. SMEs/ADESH</li> <li>2. ADESH</li> <li>3. ADESH</li> </ol>	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>
B. Identify Required Training for Leaders, WSST, workers, and SMEs	<ol style="list-style-type: none"> <li>1. Implement HPI training for managers                             <ol style="list-style-type: none"> <li>a. Refresher                                     <ol style="list-style-type: none"> <li>i. Develop HPI refresher for managers</li> <li>ii. Develop institutional implementation schedule</li> <li>iii. Implement refresher HPI training for managers</li> </ol> </li> <li>b. Initial                                     <ol style="list-style-type: none"> <li>i. Develop HPI training for managers</li> <li>ii. Develop institutional implementation schedule</li> <li>iii. Implement initial HPI training for managers</li> </ol> </li> </ol> </li> <li>2. Implement training for WSST and Learning Team Leaders                             <ol style="list-style-type: none"> <li>a. Develop Learning Team training</li> <li>b. Develop institutional implementation Schedule</li> <li>c. Implement Learning Team Strategy</li> </ol> </li> <li>3. Implement HPI practioner training</li> </ol>		

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**Attachment 14:**  
**Los Alamos National Laboratory (LANL)**  
**Human Performance Improvement (HPI) Practitioner Description**

Human Performance Improvement (HPI) practitioners are division-, group-, and/or team-level advocates who possess a level of Human Performance knowledge, skills, and understanding that allows them to apply concepts within their organization to affect positive outcomes.

HPI practitioners are an important part of the Laboratory's overall HPI strategy. Their role is to leverage opportunities to integrate—rather than add-on—HPI techniques and principles into their organization to prevent events and improve the systems in which employees must work. They also serve as a conduit to the rest of the HPI networking community at the Laboratory

General functions:

- This may/may not be a full-time responsibility. The level of support required will vary depending on the organization's needs.
- Interface with management and employees to ensure best practice HPI aspects are communicated, understood, and incorporated into local practices.
- Share internal *Best Practices* externally; and external *Best Practices* internally.
- Assess support needs of the organization to identify and reduce performance issues.
- Mentor, offer suggestions, and provide hands-on, engaged support for HPI improvement initiatives.
- Seek out opportunities to integrate HPI concepts and practices into normal business activities.
- Interface with the LANL HPI Practitioners *Community of Practice*.
- Promote and facilitate HPI initiatives, presentations, and workshops, as necessary.

Technical Skills:

- Demonstrated skill and knowledge with applicable Human Performance concepts and practices found in DOE-HDBK-1028-2009 (and other publications as applicable).
- Demonstrated understanding of current organizational processes/systems, ability to recognize improvement opportunities, and ability to develop/provide recommendations.
- Ability to effectively participate in and/or lead meetings.

Behavioral Skills:

- Interpersonal skills including the ability to interact with individuals and groups at various organizational levels; conduct self in polite and professional manner; actively listen to what others have to say; and restate information to ensure understanding.
- Commitment to continuous self-study and knowledge application.
- Ability to maintain confidentiality and handle sensitive material.
- Uses resources effectively to generate solutions and takes initiative when resolving problems.

Desired skills:

- Presentation and communication (oral and written) skills.
- Observation and mentoring skills.
- Ability to influence others.
- Experience with data and causal analysis.

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# Attachment 15:

## Practitioner’s Guide to Human Performance in the PioPhorum Industry

### Practitioner’s Guide to Human Performance in the BioPharm Industry

This Practitioner’s Guide is intended to serve as a companion to and deeper discussion of the topics detailed in the [Human Performance Implementation Roadmap](#). The practical guidance contained herein is based on established Human Performance (HP) programs in the nuclear power industry, emerging programs and systems within the biopharm industry, and on best practices and guidance developed by BioPhorum Operations Group (BPOG) Human Performance team. At the early stages the HP Practitioner(s) may simply be a person, group or department attempting to build leadership acceptance for an HP program/culture.

A four-dimension roadmap is presented in the HP Implementation Roadmap to deploy an HP program by focusing on **Strategy and Leadership, Communication and Training, Measuring and Reporting, and Deploying HP Tools**. Additional information, background, and benchmarking data and documents is available to BPOG members on the HP team’s Central Desktop workspace .



### Strategy and Leadership

An HP program must be more than a set of tools – it should be a set of beliefs, principles, and behaviors, that provide workers the capabilities and resources needed to perform at their highest level. There