

2008 Innovations Awards Program APPLICATION

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ID # (assigned by CSG): 08-E-09ME

Please provide the following information, adding space as necessary:

State: Maine

Assign Program Category: Administration

1. **Program Name:** Bend-The-Curve
2. **Administering Agency:** Maine Department of Labor
3. **Contact Person (Name and Title):** Arthur S. Davis, Jr. Director of Operations
4. **Address:** 54 State House Station. Augusta, Maine 04333-0054
5. **Telephone Number:** (207)621-5091
6. **FAX Number:** (207)287-5292
7. **E-mail Address:** arthur.s.davis@maine.gov
8. **Web site Address:**

<http://www.maine.gov/labor/bendthecurve/>

<http://inet.state.me.us/dhhs/bendthecurve/newsletter/index.html>

9. **Please provide a two-sentence description of the program.** Fundamentally change the work of the Maine Department of Labor. Serve as model of how 21st century Maine State Governments (and the Service Sector – Government, banking, accounting, retail, hospitals, etc.) must operate in order to meet the expectations of “doing more with less;” delighting direct recipients, citizens, self, Legislations, and the executive, etc. The name of the Initiative is Bend-The-Curve (BTC).
10. **How long has this program been operational (month and year)? Note: the program must be between 9 months and 5 years old on March 1, 2008 to be considered.** The program has been operational for four years this June 2008.
11. **Why was the program created?** What problem[s] or issue[s] was it designed to address? Two reasons, one. The operating funds of the Department had been flat or declining and there was (is) no end to this condition in the near future. At the same time, expenses were (are) increasing at a rate of 7% to 10% per year for three years prior to the inception of the Initiative. There was (is) no indication that expenses were going to decline sufficiently to equal the Department's funding stream in the near future. If we continued conducting business as usual, we would not have been able to deliver service and product at the same or better level of quality, reliability, or expectation. Two, The system-of-work, to include how government perceives work is fundamentally flawed; excessive amounts of resources are used to deliver, in aggregate, so-so services. **THIS IS NOT BECAUSE WORKERS AND MANAGERS/LEADERS DON'T TRY,** They do try. It is the 'system(s) of work/the perception of work' that is the problem. It is incapable of meeting expectations.

Describe the specific activities and operations of the program in chronological order. See the below “*Thousand-Step Journey: Five Phases of the (Lean) Transformation Roadmap*”²

- 12. Why is the program a new and creative approach or method?** The hypothesis of this approach is new. The hypothesis is “the system of work” of the operations component of states governments equals the “system of work” of operating component of manufacturing; specifically, “All work is a process.” Manage the process and you will manage the quality and timing of delivery of the *input* and control the quality, timing, and cost of the *output*. Both of these systems of work are transformation processes – manufacturing transforms material into products and services and states government transforms laws, policies, and rules, into products, services, and actions. Thus, the approach is to fundamentally change both the method and the perception of work using the manufacturing tool, *Lean manufacturing*; transposed to match the needs of government operations. Lean has been tried in states governments (and other service sector entities). However, the hypothesis of these initiatives appears to be ‘fix a few processes and you fix the problem(s) of the operations portion state government’.
- 13. What were the program’s start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)** The startup cost was \$142K. These costs were budgeted and spent as follows: Start-up = first six months of the Initiative.
- a. External consulting
 - i. Organizational Development consulting \$25K
 - ii. Lean Technology consulting \$30K
 - b. “Things and stuff”
 - i. Meeting space \$1K
 - ii. Books and training materials \$0.5K
 - iii. Refreshments (food, snack, soft drinks, fruit) \$0.4K
- 14. What are the program’s annual operational costs?** 2004 - \$288K (net of start-up cost); 2005 - \$280K; 2006 - \$280K; and 2007 - \$200K
- 15. How is the program funded?** The program is uses the administrative portion of the Department’s Federal fund grants to fund the program and a small (>5%) portion of the state’s general funds.
- 16. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.** No.
- 17. What equipment, technology, and software are used to operate and administer this program?** The program does not require equipment, technology, or software to operate or administer the program.
- 18. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator’s name, present address, telephone number, and e-mail address.** The approach that we are using initiated in Maine State government, specifically at the Maine Department of Labor. Arthur Davis, 54 State House Station, Augusta, Maine 04333-0054. (207)632-5091. arthur.s.davis@maine.gov
- 19. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?** No. As far as we can determine, a number of other states are using Lean Manufacturing method to become more efficient. At the Maine Department of Labor, however, we are using *Lean* to help us fundamentally change how we do our work.
- 20. Has the program been fully implemented? If NO, what actions remain to be taken?** No, the initiative (program) has not been fully implemented. There are two answers; the BTC Initiative is a journey. Therefore, in a real sense we will not ever ‘fully implement’ the initiative. That said, we have organized the BTC Initiative into a series of phases, we are approximately in the second phase of a five phase Implementation Strategy. What is left to be implemented is phase two: “Expanding with tools and deeper thinking”
- 21. Briefly evaluate (pro and con) the program’s effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.** Pros, according the to *Research Report #246*,

December 2005¹, the BTC Initiative is the wave of the future. Service sector processes must draw on a must and use a more disciplined method, indeed the scientific method of management to sustain itself. BTC leads us in that direction. Thus, the BTC Initiative is exceptionally effective in addressing the defined problem. In much of the process engineering community, it is a widely accepted fact that “all work is a process.” Having a significant number of MDOL’s leaders, middle managers and roughly ¼ of MDOL’s workforce actively using *Lean* tools is a success. These are the tools are used by a leading private sector companies e.g. Toyota, Motorola, Bank of America, Caterpillar, Honeywell International (previously known as Allied Signal), Raytheon, Merrill Lynch, 3M and General Electric (introduced by Jack Welch), as *Best Practices*. Cons, this is a ‘forever initiative.’ Sustaining the initiative over the long term is/will be difficult.

22. **How has the program grown and/or changed since its inception?** From its inception, the Initiative (program) was designed to cause fundamental change. How profound the change would be was not as clear as it is now.
23. **What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?** The “market” is full of ‘quick fix’ or ‘quick change’ artist. They should be aware, fundamental change requires leaders, managers, and workers who know that they are on a journey. There are no quick solutions, or no low hanging fruit.

¹ Research Report No. 246 December 2005, “What is Service Science?” The Fujitsu Research Institute Economic Center Tokyo, Japan

ATTACHMENT:

A Thousand-Step Journey: Five Phases of the (Lean) Transformation Roadmap²

THE ROADMAP is a guide, not an absolute; it helps demarcate the journey and suggests options. Which path to take will be influenced by where the entity began its lean transformation: what condition or issues it is dealing with; and the entity's willingness and ability to adapt and change based on actual experience and learning's of its workers.

CAUTION: Make sure the appropriate amount of time and resources are devoted to lean transformation.

WHAT LEAN IS – WHAT LEAN IS NOT – “Lean is not about tools.” Lean is about systems. It is the combination of tools, evaluation, internal connections, and lean thinking that forms a lean system – and lean thinking is at the core.

What is “Lean thinking”? Simply defined, *lean* is shared thinking...those in the organization share a common philosophy, a common set of ideas, and a common set of rules and principles.

LEAN IS NOT A FINITE GOAL – LEAN IS A JOURNEY- Question: When will the Department be Lean? Answer: *Never!* When thinking lean, there will always be a gap between where the Department is (Current State) and where it would like to be (Ideal State). Success should be proclaimed to recognize and reinforce behaviors and accomplishments. True, however, success is achieved when the Department continues to move forward at such a pace and with such a passion that it is difficult to slow it down and impossible to stop, regardless of how well it is performing.

TEN (10) LEAN TRANSFORMATION EVALUATION CRITERIA to be considered at different phases of the lean transformation.

1. **Tension** – tension, not stress (stress arises out of hopelessness) – the gap between a clearly defined, compelling Ideal State whose characteristics are well developed and articulates and contrasted against a deeply understood Current State. A Current State that defines the gap. The gap creates the tension.
2. **Go for the pull** – tension helps spur momentum for lean; looks for champions, sponsors or a compelling business need (limit “push”).
3. **Leadership involvement** – There is no better champions and no better advocates for pull ~~than~~ than a company's leaders. It is ideal to have senior leadership actively engaged in the lean journey, not just sitting in a seat, but also driving the vehicle.
4. **Business conditions** – determines what “gear.” If the condition is survival mode or extreme pressure to immediately improve, then the focus should be the immediate application of such lean tools as Kaizens, waste elimination, or Five S. Development of lean culture may be put on the back burner for better times. If the climate is competitive pressure and recognition of the need to improve, begin with tools and in parallel, work on changing the culture to sustain and continue the improvements.
5. **Baggage** – the bad taste left by past unsuccessful organizational initiatives; real or perceived. It should not be ignored.
6. **Culture** – the unique traits and characteristics of the people within the organization, these are to be factored into the change effort.
7. **Resources** – a organization will want resources available to develop and dedicate certified (proven to have reached some specific level of proficiency) lean specialists to the business units, agencies or specific areas. The significance? To establish a common language and a common lens for those driving the organization.
8. **Integration** - lean must be perceived as the vehicle to take an organization to new heights. The addition of continuous improvement initiatives such as six sigma should be seen as complimentary.
9. **Measurement /Evaluation** – measurement/evaluation systems dramatically influence organizational behavior. **CAUTION:** measurements/evaluations must be consistent with desired *lean thinking* behaviors.
10. **Vocabulary** – vocabulary may seem like an unimportant consideration, but jargon can be confusing...if the name of the initiative is “process excellence” integrate any new language with the rules, principles and practices of lean unless there is already an existing word that means the same thing.

FOCUS OF PHASE	Phase zero: Exploration	Phase one: Building the foundation	Phase two: Expanding with tools and deeper thinking	Phase three: Integrating and reinforcement	Phase four: Building momentum
General comments	Typically, leadership and/or management initiates phase one by trying to understand more about lean, how it might fit into the organization, what challenges it may pose and, most significantly, what payback it may offer.	Consensus is reached – lean is about the way business is done not a series of events or projects. Leaders should begin to understand and apply basic lean tools to uncover the true current reality. It is critical for the organization to recognize the tension (between the current state and the ideal state) so that it can embrace the potential of lean.	Lean is expanded to a larger part of the organization and burrows deeper into lean tools and lean thinking. The focus is on critical business issues and opportunities. Leadership Engagement: by now the organization should have acquired a strong appetite for lean. Going forward, active leadership involvement is required. Without leadership direct involvement, obstacles slow the momentum.	The organization integrates Lean every aspect of its business. To move to Phase Three requires two (2) key points: 1. Leadership is critical. ...managers maintain current reality “leadership is the ability to get (people) to do what they do not want to do and like it.” Overcoming the natural registrants to change; A. Leaders have a true distaste for current reality . B. Have/able to articulate ideal state C. Courage to close gap. 2. Focus must be on problems...these treasures, problems, will become more evident. Mechanism and skills must be in place to bring problems to the surface and allow for their resolution.	The organization’s focus is on continually reinforcing lean and maintain-ing momentum. When an organization reaches Phase Four, there is some danger it may fail to recognize lean is a journey that never ends. Lean is Evolutionary – Lean can take one or two years to build momentum (not one or two quarters) for this never-ending journey. Such a long-range commitment often serves as a barrier. There will be Mistakes – often implementations do not go as planned (even the best planned implementations). Planning, however, is critical. The key is to accept that there will be mistakes – and not repeat the same ones.
Time frame	0 to 6 months	~ 3 to 9 months If an organization’s leadership has not established a solid foothold for lean and demonstrated measurable results within the first year, organizational support will wane and attentions will focus elsewhere	6 months to 2 years Length of time will vary affected by resources committed, leadership being actively involved, clarity of direction and goal alignment.	Difficult to assign time frame-----it could take another years or so. As part of lean implementation, periodic lean assessments of the entire organization should be taken. They are valuable to stimulate reflection on progress and provide direction.	Ongoing...it does NOT end!
Education	An organization develops an awareness and general understanding on the application and benefits of lean.	Develop deep understanding of lean rules and principles; use the “Learn, apply, reflect” approach.	An organization needs to expand its lean education effort across a wide cross section of the organization. Of equal importance is leadership education---can’t effectively direct and engage	Education should continue to build in scope and depth. The organization should have a basic level of understanding, a common language, and a fundamental skill set. Lean instruction is	Education is the cornerstone upon which lean will continue to grow and develop. Education should be an ongoing series of opportunities to learn formally such as through

			in what they do not understand.	no longer a separate or standalone channel of education; it is integrated into other existing channels.	seminars, work-shops, and study missions (aka benchmarking). And coaching, mentoring and organizational scans. Important , leadership must promote, encourage, and practice both formal and informal avenues of learning.
Application	Discouraged during this phase. Application could result in failure or sabotage	Typically, the organization focuses on one or many small areas. The application tests the effectiveness of various basic lean tools and engages the organization in small, yet meaningful and highly visible improvement activities.	Small localized areas already in place. Its now time to move to the next plateau by applying more advanced lean tools. The application should focus and align with key business issues – those critical processes/ performance opportunities that will generate significant measurable gains.	The organization should incorporate application of lean into all areas and all functions of a department or location and validate it with measurable results. Expanding = measurable results indicative of continuous improvement, and evident of desired lean thinking behaviors. The whole organization is moving away from facilitate events and toward and conscious behaviors and activities in the day-to-day business operation.	Lean is now integrated into the every day-to-day activity in the organization AND fully integrated into every decision-making thought process.
Communications	There is no formal communications during this phase. Leaders are prepared to respond to questions as asked.	The organization uses communication to build a “burning platform,” a clear and powerful reason to change, and spread the message of lean’s importance and value. The company’s potential is articulated. The message about lean needs to be consistent, communicate using various forms; newsletters, town hall meeting, and other formal mechanisms.	Should continue to build on the message from phase one: recognizing the importance and value of lean. Communications should provide direction or act as a compass, deploying clear goals and metrics throughout the organization.	Formal communication channels developed in previous phases are continued. However, there are more informal person-to-person or person-to-team communications.	In Phase Four, an organization should be communicating about lean externally with suppliers, customers, funding sources and the community at large.
Infrastructure	There is no lean infrastructure yet.	External resources can be of great benefit. Other questions to ask: should we commit full-time resources and designate	Clearly defined lean roles and responsibilities, and some key operational leaders to drive education and execution has been established. Also the organization should	Area leaders within the organization should start to assume responsibility for lean teams in their areas. Group and/or local lean specialists should begin to take a ‘back seat.’ The lean group/specialist	Lean skills and infrastructure are embedded in the organization of every business unit, regardless of the service or product provided. Roles and responsibilities are clear and standardized at every level.

		<p>specialist? Do we build internal lean group competency? Do we centralize decentralized lean expertise? What should management oversight look like? Additionally, the establishment of clear goals and metrics as lean targets should be put in place.</p>	<p>consider and develop a lean oversight structure, a steering or management committee to include senior leadership and key operational leaders responsible for assessing progress and providing direction</p>	<p>should shift from a coordinating role to a support/coaching role. This should not be done, however, until it's clear that the requisite skills are in place.</p>	<p>There is likely to be some semblance of a centralized lean group; their primary focus is assessing the organization to identify gaps and barriers to continued lean transformation.</p>
<p>Tools and method</p>	<p>Application of tool lean tool discouraged. Application of tools likely to appear disjointed</p>	<p>Three primary objectives: 1. Stabilize operations for test and experimentation 2. Provide the foundation for sustained learning and the internalization of lean thinking. 3. Achieve measurable results to realize a solid return on investment. Some tools; Waste walks, Kaizen events, learning laboratories, Five S, Visual management, and standardization</p>	<p>1. In areas where stability has been achieved, focus is expanded beyond 5 S, waste elimination and work instructions to more advanced tools like kanban, Just-In-Time, and quality systems. 2. Areas that have yet to begin applying tools can begin by applying phase 1 tools. 3. To provide a more enterprise-wide application, VSM and hoshin planning to focus and align. It is likely that project teams using lean thinking may begin to tackle larger areas using Kaizens.</p>	<p>Continue to use the tools introduced in the earlier phases. However, additional and more advanced tools are required in Phase Three. It may seem obvious that an organization should always understand the purpose of the tools and methods it employs, it is surprising how few organizations recognize their intent (See appendix for <i>Lean Tools Purpose</i> definitions).</p>	<p>By Phase Four, an organization has used and internalized every lean tool and methodology applicable to its sector. The goal, at this stage, is not to acquire more tools, but to develop a mechanism that aligns and connects the organization's goals with the most effective and efficient application of tools. An organization should not undertake any corrective action or improvement initiative unless it can be clearly and obviously connected to its goals and objectives. Hoshin planning or policy deployment are good tools for this task.</p>

Source: ²Adapted from Flinchbaugh, Jamie & Carlino, Andy. The Hitchhiker's Guide to Lean: Lessons From the Road. Dearborn, Michigan: Society of Manufacturing Engineers, 2006