



# **Introducing SystemCPI<sup>SM</sup>**

**AN INTEGRATED ROADMAP TO DEPLOY AND MANAGE PROCESS IMPROVEMENT INITIATIVES.**



**NOVACES<sup>®</sup>**  
Advancing Process Improvement.

## › Answering the question “how to”

Companies using Lean and Six Sigma have experienced some very impressive results in the beginning but some have difficulty keeping their programs up to speed with the pace of change and the needs of the business. Others simply struggle with harnessing the methodologies as an integrated approach to eliminate waste and variability, concluding that the approach cannot help them. The reality is that the success stories of the past several decades across virtually all industries do not support this conclusion.

While there is no debating the achievements, the traditional Lean Six Sigma deployment approach has been lacking a workable framework to dependably address the needs of the overall enterprise and to deliver them quickly and reliably. The methodology tends to cause a focus on local improvement projects without regard for overall systems improvement, in effect injecting unnecessary risk to the enterprise. There is also the common issue of wanting the most improvement for the least investment.

In this hyper competitive age, these issues present a challenge to companies whether they are at the beginning of the journey to process excellence or needing to refresh a current program. It begs the question of how companies can take continuous process improvement to a higher level and closer to the promise of a true overall business improvement methodology. The ideal approach needs to solve five overarching issues in a deployment that:

- Scales to any size organization and aligns easily to needs.
- Shortens the traditional execution time from adoption to results.
- Optimizes the utilization of resources required to achieve the desired goals.
- Breaks organizational policy constraints and maximizes organizational efficiency.
- Sustains the gains and defines a path to self-sufficiency.

With these requirements in mind, NOVACES created a comprehensive deployment methodology called SystemCPI. Several years in development and the result of real world applications, it is a rigorous, structured methodology that can be applied at any stage in an organization’s continuous process improvement (CPI) journey. It is equally applicable for a green field initiative or a mature program. Importantly, this seamless roadmap was designed to mitigate the emphasis on local improvements that can compromise an entire system.

SystemCPI transcends the barriers that impede traditional approaches. It is a magnet for executive leadership and transitions to the operational level. It can jumpstart a new deployment or invigorate an existing one. At the same time, it addresses a host of implementation issues such as strategic alignment, project selection, and an inability to progress towards self-sufficiency.

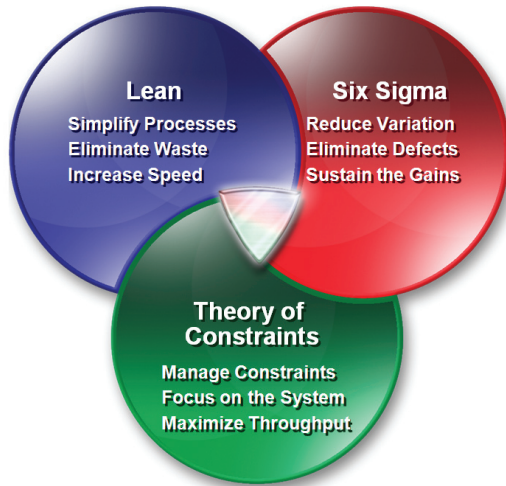
## › War and peace among methodologies

Today’s leading CPI methods are Lean, Six Sigma, and Theory of Constraints. While these methodologies have previously been associated with manufacturing and the supply chain, today they are increasingly applied successfully to services such as healthcare, banking, and government. In the late 1990s, Lean, Six Sigma and Theory of Constraints were in an active state of contention. However, as success stories emerge from the integration of these methodologies and their toolsets, there is peace spreading among the factions.

Each of the methods incorporated into SystemCPI has complementary features. Since not every problem is a nail, a hammer is not appropriate for all problems. Thus, the approach leads the project team to the most effective tool for a given situation. In so doing, it simplifies the

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selection from the array of SystemCPI tools, including Theory of Constraints and its thinking processes (a breakthrough methodology to identify and manage a system's constraints) and Lean (a systematic approach to eliminate waste) and Six Sigma (a rigorous, data-driven process to eliminate defects).



## › The architecture of success

SystemCPI is comprised of four deployment phases consisting of the most effective approaches in industry today. Importantly, it recognizes organization-specific needs and preferences and it is scalable for any organization size. It can work for a small organization, a single business unit, or a large organization with multiple locations. The result is a highly structured approach that provides the systems perspective needed to focus improvements where they are most needed to produce the best returns at the enterprise level.



## › ASSESS

SystemCPI helps map the alignment of a deployment with an enterprise's strategic objectives, while addressing two of the primary reasons for deployment failure: project selection and leadership engagement. To ensure a complete project selection process, the methodology identifies improvement opportunities using a triadic approach of System Constraint Analysis, SystemVSA<sup>SM</sup> and Strategic Gap Analysis. A change readiness assessment is also conducted during this phase.

These first steps are critical to overall deployment success. This comprehensive approach establishes an enterprise's needs up front, thus ensuring that process improvement resources are directed at projects with the biggest global impact on competitiveness and financial performance. The approach drives leadership engagement while mapping the interdependencies and constraints of the organization. And only after this phase has been completed is the applicable training of CPI practitioners conducted.



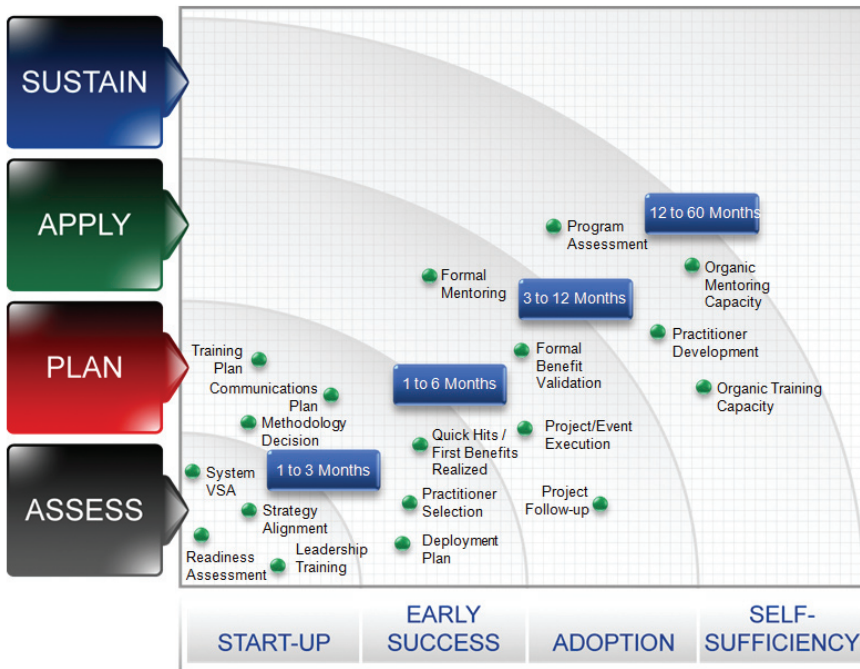
### › In the beginning is the end

Our CPI Maturity Model is the result of systematic applications in wide-ranging deployments. The exclusive 4X4 CPI Assessment measures progress throughout the SystemCPI stages, correlating the organization's progress towards CPI self-sufficiency. The completion of the phase deliverables establishes benchmarks for CPI maturity. The critical deliverables are delineated in the maturity model within their respective phase. The critical deliverables are delineated in the maturity model within their respective phase (please see chart on the next page).

### › Start with what you know and then ask questions

We use the Theory of Constraints logical thinking process to clearly define the goal of a system, identify the gaps to reach the goal, and map out the actions required to close the gaps. By using cause and effect logic, leaders get a clear picture of what they want from the system under consideration. Further, they can identify the gaps between what is wanted and where they are today. During this step, root causes of the gaps and constraints are identified and solutions are developed to overcome them.





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## › PLAN

The improvement opportunities identified in the Assess Phase are prioritized based on organizational impact and resource availability. A deployment plan is developed that details the way forward, identifying improvement opportunities, communication and training plans, as well as metrics to measure the overall success of the deployment. Team members are identified and delivery of just-in-time training for the selected improvement opportunities is accomplished.

## › APPLY

This phase is about applying appropriate process improvement tools and getting the desired results. SystemCPI helps to identify the appropriate tool sets and methodologies to be used and in the right sequence. These include Quick Hit Improvements, Rapid Improvement Workshops, Lean Six Sigma DMAIC Projects, and Constraints Management. Our roadmap also prompts examinations of past and ongoing process improvement projects to determine if any of those projects – their methods, findings, recommendations, results, etc. – can be leveraged in the new project.

## › SUSTAIN

As an organization implements CPI methods, sustaining the gains is always challenging. Indeed, without careful oversight an enterprise can backslide into its old ways of working. Thus, SystemCPI includes action plans to evaluate the status of the CPI deployment, make necessary revisions as the needs of the organization change and weave the program into the organization’s management infrastructure. Our roadmap also guides the identification of project replication opportunities, a key to maximizing return on investment.

## › So much to do, so little time

Responding to the urgent needs of some organizations, we have fashioned our roadmap into a SystemCPI JumpStart<sup>SM</sup> program that compresses the timeline from kickoff through



development of the deployment plan. This fast-track approach requires moderate to high level of access to an organization's executive leadership in the beginning. Yet, to facilitate this accelerated implementation the program includes action steps that quickly navigate common process improvement roadblocks and acquire the information needed on the continuous journey to operational excellence.

JumpStart efforts can be accomplished in two or three weeks. They can be conducted in consecutive weeks, or with a short break between the weeks. Despite the up-tempo deployment, the program is ideal for an enterprise needing to quickly implement or refine a CPI strategy with the necessary discipline to formalize purpose, direction, and roles.

### › **The future never just happens**

Rather than applying CPI methods in isolation, or applying a one-size-fits-all deployment, SystemCPI provides a flexible yet structured approach that recognizes the unique needs of each organization and uses an integrated approach to apply the right tools to the right situation. Lean, Six Sigma and Theory of Constraints produce great results in and of themselves, but used together they are more valuable. One is never a substitute for the other and they align well to generate improved competitiveness and financial results.

### › **About Us**

NOVACES is a premier implementer of today's most powerful process improvement methodologies that strengthen operational capabilities and financial performance. We deliver Lean, Six Sigma, and Theory of Constraints consulting and training to clients in the defense, healthcare, maritime, finance and service industries. We are dedicated to advancing the science of process improvement and leveraging research to provide the most effective solutions in the market.

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