The Implementation Process Action Tool

Igniting the Passion and Imagination of an Organization to Introduce Positive Change

Construction Industry Institute®

IS 31-2

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Igniting the Passion and Imagination of an Organization to Introduce Positive Change

Implementation Research Team IS 31, Vision to Action

Construction Industry Institute

IS 31-2

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The University of Texas at Austin

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Introduction

New practice implementation is essential to the long-term success of any capital project delivery organization whether it is instituted as innovation, progress, or as a means for gaining a competitive advantage. To gain the most benefit, though, organizations must commit to moving from having an initial vision to successfully completing the implementation process. This commitment to change is critical to sustainable success. The challenge is to develop processes that support the move from vision to action, and to ignite the passion and engage the imagination of the individuals tasked with carrying out the process. The CII Implementation Strategy Committee (ISC) established Implementation Research Team IS 31, Vision to Action, to find the best ways to address this important challenge.

The research team conducted a literature search, a survey, structured interviews, and a series of case studies, all to gather empirical evidence that a gap exists between the initial step of establishing a vision for new practices and the overall implementation process. The team's findings generated this implementation resource, IS 31-2, *The Implementation Process Action Tool: Igniting the Passion and Imagination of an Organization to Introduce Positive Change*. This guide gives implementation teams detailed instructions for using the tool—called the IMPACT tool—to make qualitative and quantitative evaluations of their preparedness for moving from vision to action. The team also produced IS 31-3, *The Vision to Action Hot List*, a short-form checklist for successful implementation, that accompanies the IMPACT tool.

The IMPACT tool and Hot List are designed to fit within the entire suite of CII implementation process tools. Figure 1 shows how these new tools help organizations between the moment they first understand the value of CII practices and the point at which they enter the full implementation process.

Understanding CII Value

Igniting Change through Vision

Implementation Action

RS 166-1, *Measuring Organizational Implementation Status*

Vision to Action Research Guidance

IR 246-2, *The Implementation Planning Model: Steps to Success*

IR 246-3, *The Experience Reference Index*

IMPACT Tool

CII Implementation Assistant

Figure 1. The IMPACT tool and Hot List bridge the gap from understanding value to actively implementing

Details about the IMPACT Tool

The Vision to Action research team developed 37 questions to determine an organization's preparedness to move from vision to action. Using these questions as the basis for the IMPACT tool, the team grouped them into seven areas analogous to the phases of crossing a "bridge" between vision and action:

1. Preparing to Cross
2. Getting on the Bridge
3. Starting the Journey
4. Checking the Supports
5. The Main Crossing
6. Addressing the Barriers
7. Exiting to Action.

Although using the tool does not guarantee implementation success, it does provide a foundation for the necessary motivation to innovate and implement a new practice.

The IMPACT tool presents the user with a Likert scale of responses to each question (i.e., respondents are asked to answer the extent to which they agree with a statement about their implementation preparation). The tool also provides a brief set of recommendations for improving each preparation area (i.e., each phase of the crossing). Because not all issues addressed in the questions have equal impact, the team drew from the implementation literature and used a Delphi approach to establish weights for each one. In addition to this implementation resource and the Hot List, the team produced a research summary, IS 31-1, *Vision to Action IMPACT*.

Using the IMPACT Tool

Following are the steps for using the IMPACT tool.

Step 1: Download the IMPACT Questionnaire

To use IMPACT within an organization, the user must distribute the IMPACT questionnaire to all participants. The questionnaire can either be accessed within the main IMPACT analysis file on the tool's User Questions tab; or, a separate questionnaire file titled "IMPACT Questionnaire.xls" is provided for easy distribution. The questionnaire tab/file includes directions for the respondent, the statements that comprise the IMPACT evaluation tool, and drop-down scoring tabs for each question. (See Figure 2.) The administrator should use the second file, named "IMPACT Assessment.xls," to analyze the results and generate the appropriate recommendations.

	A	B	C
1		Construction Industry Institute®	
2		**CII IMPACT Implementation Assessment Model** The goal of the Vision-to-Action effort is to provide a method to establish a uniform path to implementation success. The vision-to-action process is not uniform to every organization. Rather, the process is heavily influenced by the organization model that is in place in a specific organization, the level of autonomy that project managers have in the organization, and the geographic scope of the organization. The Implementation Process Action Tool (IMPACT) provides an evaluation-analysis-recommendation perspective that is intended to ease the transition from vision-to-action in the implementation process and encourage a consistent process.	
3		Use this worksheet to enter the individual survey data.	
4		**The following scale will be used when answering each question.**	Enter individual survey results below.
5		**1=strongly disagree**	
6		**2=slightly disagree**	
7		**3=I am neutral**	
8		**4=slightly agree**	
9		**5=strongly agree**	**User response**
10	**Phase 1**	**Preparing to Cross the Bridge - Phase 1**	
11		Senior management is taking the lead in developing a vision for the new practice implementation.	Strongly Disagree
12		A vision has been established for introducing a new practice	
13		Individuals are encouraged to submit recommendations for new practices.	Strongly Agree
14		Departments are encouraged to implement and try new practices.	Neutral
15		Multiple levels of management and professional staff are involved in selecting new practices for implementation.	
16		Senior management has collaborated in selecting a test case for the new practice.	
17			
18	**Phase 2**	**Getting on the Bridge - Phase 2**	
19		An objective measurement is used to evaluate new practice options	Neutral
20		New practice options are compared against strategic corporate goals	
21		New practice indecisions are incorporated into strategic planning processes.	
22		The short-term benefit of the new practice has been evaluated, quantified, and	Neutral
23		The long-term value of the new practice has been communicated	
24			
25	**Phase 3**	**Starting the Journey - Phase 3**	
26		A dedicated discipline-based or implementation-oriented team is in place to oversee the implementation actions.	Agree
27		The proposed practice is focused at a group, division or corporate-wide level.	
28		The proposed practice is focused at a project or team level.	
29		A dedicated implementation champion is generally assigned to a new practice	
30		Management provides sufficient resources to support new practice implementations.	

Figure 2. A Screen Capture of the IMPACT Survey

Step 2: Distribute the IMPACT Survey to the Vision to Action Team

Successfully using the IMPACT assessment within an organization usually requires the commitment and availability of at least two individuals: one to champion the IMPACT assessment and another to provide administrative support. The champion should direct the administrator to distribute the IMPACT survey to the implementation team members through an email, an organizational intranet (internal website), or in hard copy. Choosing the appropriate communication mode depends on the organization's culture and on its employees' computer skills. Having employees complete the Excel-based survey has the advantage that the administrator will not have to manually enter handwritten numbers. In organizations in which some employees would not be comfortable using Excel or completing an electronic survey (due to concerns about anonymity), consideration should be given to distributing hard copies of the survey.

The Vision to Action research team found that the survey results will best represent the state of the organization if all members of the implementation team complete it. This is especially true if the team is in different geographic locations, and/or in different disciplines or groups. However, in some cases, a set of managers may wish to limit the survey sample to a portion of the team. Although completing the survey should not require more than 20 minutes, administrators should give team members at least one week to return the questionnaires, to convey the importance of the survey to the implementation process.

As shown in Figure 1, the Excel file includes the following introduction and directions:

> The Construction Industry Institute established the Vision to Action implementation research team to gain guidance on igniting implementers' passion and engaging their imaginations to bridge the gap between envisioning an implementation and achieving implementation success. Based on an extensive literature search, interviews, surveys, and case studies, the team created the IMPACT tool for evaluating an organization's preparedness for bridging the vision to action gap. Your organization wishes to use the tool to assess its own preparation for implementation, and requests your candid completion of this survey.

The IMPACT administrator should edit this text as appropriate. If it is accurate, he or she should still consider providing respondents with supplementary information, such as the organizational motive for conducting the survey (e.g., there is a strategic, organization-wide initiative for innovation), the deadline for completing the survey, and the survey's possible relationship to the vision to action process. As designed, the Excel-based survey does not allow respondents to add comments about individual questions; however, the IMPACT administrator could modify the Excel file, the instructions, and the data collection process if such comments would have value.

Step 3: Collect the Surveys and Compile the Data

The IMPACT administrator should collect the completed individual Excel-based surveys, and then aggregate them into the IMPACT Assessment.xls file. (Step 1 gave directions for downloading this file.) Most users will receive a security notice about the macros, asking them to click the "Enable Content" button at the top of the screen to allow the macros to perform their critical analysis of the data and to generate the set of recommendations. (See Figure 3.)

Figure 3. Enable Macros in the IMPACT Assessment.xls File

After opening the IMPACT Assessment.xls and enabling the macros, the IMPACT administrator should either 1) enter user answers directly into the appropriate fields on the User Questions tab, or 2) open each individual completed survey file, copy the data from Column C, and paste the numbers into the appropriate column on the User Questions tab within the IMPACT Assessment.xls file. (See Figure 4.) When pasting ratings into the IMPACT Assessment.xls, the administrator should start with Column C on the User Questions tab and work through as many columns (one per respondent) as required. The system allows for 25 responses to the survey, which should be sufficient for the implementation team.

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CII IMPACT Implementation Assessment Model

The goal of the Vision-to-Action effort is to provide a method to establish a uniform path to implementation success. The vision-to-action process is not uniform to every organization. Rather, the process is heavily influenced by the organization model that is in place in a specific organization, the level of autonomy that project managers have in the organization, and the geographic scope of the organization. The Implementation Process Action Tool (IMPACT) provides an evaluation-analysis-recommendation perspective that is intended to ease the transition from vision-to-action in the implementation process and encourage a consistent process.

Use this worksheet to enter the individual survey data.

	The following scale will be used when answering each question.	Enter individual survey results below.
	1=strongly disagree	
	2=slightly disagree	
	3=I am neutral	
	4=slightly agree	
	5=strongly agree	User response
Phase 1	**Preparing to Cross the Bridge - Phase 1**	
	Senior management is taking the lead in developing a vision for the new practice implementation.	Strongly Disagree
	A vision has been established for introducing a new practice	Neutral
	Individuals are encouraged to submit recommendations for new practices.	Strongly Agree
	Departments are encouraged to implement and try new practices.	Neutral
	Multiple levels of management and professional staff are involved in selecting new practices for implementation.	Neutral
	Senior management has collaborated in selecting a test case for the new practice.	Strongly Agree
Phase 2	**Getting on the Bridge - Phase 2**	
	An objective measurement is used to evaluate new practice options	Neutral
	New practice options are compared against strategic corporate goals	Disagree
	New practice indecisions are incorporated into strategic planning processes.	Disagree
	The short-term benefit of the new practice has been evaluated, quantified, and	Neutral
	The long-term value of the new practice has been communicated	Agree
Phase 3	**Starting the Journey - Phase 3**	
	A dedicated discipline-based or implementation-oriented team is in place to oversee the implementation actions.	Agree
	The proposed practice is focused at a group, division or corporate-wide level.	Disagree
	The proposed practice is focused at a project or team level.	Disagree
	A dedicated implementation champion is generally assigned to a new practice	Disagree
	Management provides sufficient resources to support new practice implementations.	Neutral

Figure 4. Copy Scores from Column C from the IMPACT Survey.xls

Step 4: Conduct Analyses and View Results

Once all of the data for all respondents have been copied and pasted (or manually entered into the IMPACT Assessment.xls file), they are ready for analysis. The IMPACT tool automates the analysis process using Excel macro functions. In order to run the macros and obtain results for their organizations, users should first click on the User Questions tab, and then click on the "Process" button located at the bottom of the user-question area to initiate the summary process.

Overall Results

At the conclusion of the summary process, the tool will take the user automatically to the Results tab. (See Figure 5.) This page is divided into three parts. At the top of the page, an illustration of a bridge shows where the user's organization stands in terms of meeting requirements for each of the seven "crossing" phases. Each phase, or section of the bridge, is color-coded, and each section has a percentage value below it, indicating the organization's readiness in the corresponding area. The legend for the colors is located to the right of the diagram. The bridge sections correlate to the implementation areas as follows:

- **Preparing to Cross** – For this area, the tool asks a series of questions focused on management buy-in and the appropriate setting of a vision for the implementation.
- **Getting on the Bridge** – The focus of the questions for this section is on establishing metrics and formulating statements of necessity to explain fully the need for implementation and the way it will be evaluated.
- **Starting the Journey** – The tool questions for this area aim at ensuring that a team has been put in place to guide the implementation and that resources are available to support the implementation.
- **Checking the Supports** – This section constitutes a final checkpoint for determining whether the organization has the appropriate cultural, management, and technical support in place for a successful implementation.
- **The Main Crossing** – For this section, the tool makes queries to ensure that the organization has a defined plan and roadmap for completing the implementation effort.

- **Addressing the Barriers** – Prior to completing the journey, the questions for this section help the organization determine whether it will encounter common barriers, and if it is prepared to address them.
- **Exiting to Action** – In this section, a final set of questions focuses on communications and the organization's ability to communicate what it has accomplished, how it will build on the implementation, and the importance of the newly implemented practice to the organization.

Figure 5. The Results Tab after Processing is Complete

Midway down the Overall Results page, the tool presents a weakness analysis based on the users' answers to the questions for each section. The organization's weaknesses are displayed in cases in which the average response to a question is "Disagree" or "Strongly Disagree." The tool sorts the weaknesses to show the largest potential weaknesses at the top of the list. For example, in Figure 5, Phase 1 has no questions with answer values lower than "Neutral," so no weaknesses are displayed. However, because Phase 2 has two questions with "Disagree" or "Strongly Disagree" values, potential weaknesses appear in the weakness analysis column below the corresponding section of the bridge.

Also, at the lower part of the screen, the IMPACT system presents recommendations for overcoming the specific weaknesses identified for each section of the bridge. In summary, the Overall Results tab gives the user an overview of the organization's readiness to implement new processes.

Analysis of Preparation

In addition to the weakness analysis, the "Overall Results" tab provides two other key results: 1) a point perspective (possible and current points), and 2) a preparation diagram. The point perspective is a quantitative table illustrating the organization's achievement in each of the seven crossing phases. Specifically, the tool multiplies each answer by the corresponding question's weighting factor to generate a current point value for that question. The sum of the points for each question in a given section provides the "Current Point" total for that section. As discussed above, the Vision to Action research team used its data analysis to formulate the IMPACT tool weights.

The other set of numbers in the table comprise the possible points available. Similar to the current points, the possible points are calculated according to the weightings for each question. However, in the case of the possible points, the weight of each question is multiplied by the maximum number of points for that question. The sum of these values in an individual area provides the possible points for that section. For example, the organization featured in Figure 6 has achieved 104 of the possible 122 points in the Phase 1 section of the survey.

Analysis of Preparation: Point Perspective		
Phase	Possible Points	Current Points
Preparing to Cross the Bridge - Phase 1	122	104
Getting on the Bridge - Phase 2	101	57
Starting the Journey - Phase 3	120	52
Checking the Supports - Phase 4	121	6
The Main Crossing - Phase 5	109	9
Addressing the Barriers - Phase 6	76	6
Exiting to Action - Phase 7	79	3

Figure 6. IMPACT Analysis Summary on the Overall Results Tab

The IMPACT tool uses the points generated for the point perspective to create the Preparation Diagram, also illustrated in Figure 6. Each spoke of this spider graph is associated with one of the seven phases of the bridge crossing. Each spoke is then divided into 20-point increments that correspond to the possible points for each area. The diagram plots the possible points and the current points for each of the seven areas (as listed in the point perspective table) on the appropriate spokes at the appropriate point levels. The diagram also creates a line between the values on all seven spokes to form its final (spider web) plot. This diagram presents a high-level summary of progress, to facilitate communication on the implementation process.

Improvement Potential

The third set of results provided by the IMPACT tool are the top five recommendations for improving implementation preparation. To view the top five improvement recommendations, click on the Impact Recs tab. This tab presents these recommendations in a color-coded table that indicates where the team should initially focus implementation preparation efforts. (See Figure 7.)

Vision-to-Action
Bridging the Implementation Gap

IMPACT Top Leverage Recommendations

Immediate Recommendations	Current Points	Improvement Potential	Average User Response	Potential Points	Weighting Factor
A communications plan needs to be established for how a broad notification will be incorporated to inform the organization of how the implementation process is progressing and how it is achieving stated goals.	14.75	100%	1	14.75	2.95
The team needs to appoint an individual who can be a dedicated implementation champion. The lack of this individual will result in a significantly higher likelihood that the process will encounter problems.	13.44	60%	2	22.4	4.48
The management team needs to convene the strategic planning committee with the potential implementation team to determine how alignment between the potential practices and strategic goals exists.	12.5	60%	2	20.833333	4.17
The management team needs to convene the strategic planning committee with the potential implementation team to determine how alignment between the potential practices and strategic goals exists.	11.04	60%	2	18.4	3.68
Set a meeting with the implementation team and senior leadership to craft a clear vision statement for the new practice being considered.	9.84	40%	3	24.6	4.92

Figure 7. Screen Capture of the Impact Recs Tab

As illustrated, the table includes several components:

- **Current Points** – Obtained from the average user response, multiplied by the question weighting.
- **Improvement Potential** – Calculated by taking the difference between the potential points and the current points. The percentage of points that are still available are represented by the improvement potential.
- **Average User Response** – The average response score of the users on the one-to-five-point scale, with "5" being the highest possible numbers of points.
- **Potential Points** – Calculated by taking the maximum points available for a question, multiplied by the weighting factor for that question.
- **Weighting Factor** – The weighting factor assigned to each question.

The inclusion of weighting in this chart means that the top improvement recommendations will not simply be the attributes with the lowest average scores. More importantly, this tab shows the improvement potential for the top five improvement areas. The tool calculates the innovation potential for each question by subtracting the current points from the potential points, and then using the remaining points to calculate the percentage of points that remain for the user to obtain. To illustrate, on an individual question, a respondent may get an average score of 3.5. This value is then multiplied by the importance weighting of that question as defined in the IMPACT tool. If the weight of the example question is "3," then the current points for that individual question is 10.5. However, the potential points for that question is 15. This gives an improvement potential of 30 percent (i.e., 4.5 remaining points/15 potential points). The IMPACT tool uses this improvement potential rating to rank each of the questions determined to indicate a potential weakness. The questions with the top five improvement potential scores are included in this tab. These may be considered the "low-hanging fruit" for the user's organization, or the areas that have the greatest opportunity to return results if addressed.

The color coding is a visual indicator of the percentage of points that are available for the organization to achieve. The green shading indicates that at least 75 percent of the possible points have been achieved. Yellow shading indicates that at least 50 percent of the possible points have been achieved, and red indicates that less than 50 percent of points have been achieved.

In addition to the numeric ratings presented in the table, each of the five questions is presented with a recommendation for improving the attribute. Each recommendation succinctly discusses the issue associated with the question and a possible path for improvement. The recommendations do not dictate a specific set of tasks to be accomplished, since each organization's circumstances will vary. Thus, the recommendations should be viewed not as a definitive action plan, but as a starting point for the development of a roadmap for improving an individual area.

Step 5: Share Results with Colleagues and Create Specific Action Items

The implementation team leader should share the IMPACT reports with colleagues within the organization (particularly the top five improvement recommendations). The recommendations should be evaluated by people in a range of roles across the organization, so that any specific action items formulated by the implementation team can be integrated with current initiatives or specific business practices. Again, the recommendations should be viewed as a starting point for conversations about improving the organization's ability to implement new practices.

Closing Remarks

This guide is intended to give CII members step-by-step instructions for using the IMPACT tool. The strengths of this tool are that it is based upon a series of different data inputs, as well as the experience of individuals from a number of EPC firms. It allows an organization to obtain input from a stratified and representative sample of employees, identifies specific areas where the potential for improving the culture of innovation is greatest, and provides recommendations for enhancing the vision to action process. These recommendations should stimulate fruitful discussion on the specific actions that should be taken within the organization. In summary, the IMPACT tool will provide organizations with a starting point for igniting, supporting, and expanding the flames of innovation.

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