

b. Stage 3 - Developing a Vision and Strategy–Application

For the case of the organizational change effort that Vector stands to become, the vision for Vector must be fully developed considering the characteristics of an effective vision shown above. This may be a stage that must be considered immediately, considering the progress of the Vector project and to prevent the de-railing of progress already made. The entire Vector team's support is required to develop the vision in order to ensure that an imaginable picture is painted to ARDEC with desirable outcomes that are shown to be feasible, focused, and flexible and, most importantly, that can be communicated to all ARDEC stakeholders in less than five minutes. It is for this reason that creation of a vision is a difficult task requiring the combined efforts and experiences of all team members that may take months to finalize, but this stage serves a crucial step for ensuring success of Vector. Another motivation for adopting an effective vision is to consider that "customers rarely tolerate producers that are not focused on their interests" (73). Many Vector team members fully understand that the customers, mainly the Program Management Offices, need to see clearly the value in Vector for their continued business with ARDEC. Considering this, a poor vision may very well result in a weak deployment of Vector and not only would the customers' support for the Vector project dwindle away and die off, but their view of the organization may be at stake and their tolerance of ARDEC's lack of focus may be negatively affected. The same may be said for other customers and partners of the organization. In contrast, if the Vector team is successful in creating and portraying an effective vision, the organizational members and the customers would understand the importance of an effort such as Vector and see the benefits associated with it. This would translate to their additional support early on by way of assuring stakeholder feedback, assistance in design, and support in the rollout of the effort- all of which would contribute to successful adoption of this transformational effort.

4. Stage 4 - Communicating the Change Vision

a. Stage 4 - Description

One can see here the importance of following the sequence of these stages as communicating the change vision would not be possible without an effective vision in place. The true value of an effective vision can only be unleashed when it is known and understood by all members, and this is where many organizations fail, especially in large ones, but often is attributable to failure in the first three phases. The task of creating a vision is exceedingly difficult as mentioned in the prior stage because it deals with difficulties in two realms—intellectual (the strategic aspects of the vision) and emotional (the breaking from the status quo). The questions that will likely be asked by all organizational members regarding the change must be answered by all in the guiding coalition before-hand and all of this must be communicated effectively. Kotter offers key elements for this effective communication of vision, as shown in Figure 13.

Key Elements in the Effective Communication of Vision

- *Simplicity:* All jargon and technobabble must be eliminated.
- *Metaphor, analogy, and example:* A verbal picture is worth a thousand words.
- *Multiple forums:* Big meetings and small, memos and newspapers, formal and informal interaction—all are effective for spreading the word.
- *Repetition:* Ideas sink in deeply only after they have been heard many times.
- *Leadership by example:* Behavior from important people that is inconsistent with the vision overwhelms other forms of communication.
- *Explanation of seeming inconsistencies:* Unaddressed inconsistencies undermine the credibility of all communication.
- *Give-and-take:* Two-way communication is always more powerful than one-way communication.

Figure 13. Key elements in the effective communication of vision (From Kotter)

The communication of the vision must be focused on keeping it simple for all organization members to fully grasp it (i.e., not just the engineers, managers, or accountants) and must use easy to understand language that metaphorically paints a detailed picture with the use of as few words as possible, since a picture (though in one's head) paints a thousand words. All forums of communication must be capitalized whether they be town-halls, meetings, or even posters, emails, newsletter, or ad space in the organization's newspaper—if time and cost for this is identified as an issue, than the guiding coalition is not looking closely enough at all of the opportunities for communication that may be available. Repetition is obviously key for engraining vision, but the forums mentioned above should not be the only source of repetition; rather, the strength of the organization's numbers should also work for the change effort by assuring all executives, leads, and managers constantly tie in the vision at staff meetings, status briefs, and the like. Finally, addressing issues immediately and before they spread negativity is the basic premise for addressing inconsistencies explicitly but never disregarding the feedback of the organization if specific issues are constantly being brought up.

b. Stage 4 - Application

It seems that public agencies, similar to ARDEC, do not fully take advantage of visions and even less their communication mechanisms. Visions often get interchanged with mission statements and do little for painting a picture of what the direction of the organization is. As mentioned earlier, this situation cultivates a culture of complacency and one of high resistance to change that works against important projects such as Vector. When it comes to communication, much more can be done to provide for the communication of the vision and the repetition to engrain a new overall goal to the entire organization. Agencies such as ARDEC, like private organizations, utilize forums such as town-hall briefings from the director/CEO/president, or memorandums for record emailed to the members or posted in managers' offices. These typical forums for exchanging information can and should be used to shed light on the vision and results that projects, such as Vector, stand to deliver. However, more should be done to provide for the required repetition of the message that is needed for effective organizational

transformation. Generally, all of the key elements in the figure above can be followed by an organization such as ARDEC, but in an environment where there is bureaucratic inertia with little that ARDEC can do to change this, forums that are informal offer a unique strategy for communication that can provide for repetition without unnecessarily straining its members further (after all, there is less and less time in the day for actual work considering all of the required training, much less forcing the workforce to sit in on a transformational effort briefing). Ad space in ARDEC's newspapers, posters at the recreational facilities and cafeteria, concise electronic messages via email and website presence all would provide for other-than-the-usual approaches whose uniqueness alone would entice ARDEC members. And in keeping with the previous stage, the message to be communicated should be the vision, not a detailed explanation of the Vector process. But as was stated at the beginning of this stage, a vision is required to ensure the right picture is being painted for all employees and, likewise, if people cannot seem to relate or accept a vision communicated to them then the prior stages should be closely looked at and possibly revisited. Otherwise, the next few stages will likely fail as well.

5. Stage 5 - Empowering Employees for Broad-based Action

a. Stage 5 - Description

Kotter's research has shown that it is rare for significant or lasting change to occur within an organization without the efforts and action of many within the organization. Establishing urgency, providing guidance, and promoting a clear vision of change is all well and good, but without giving the employees the freedom to implement the necessary efforts through real empowerment and the removal of obstacles to that empowerment, the organization will be unlikely to accomplish or sustain meaningful change.

The four biggest obstacles to empowerment include: structures, skills, systems, and supervisors as depicted in Figure 14.

Barriers to Empowerment

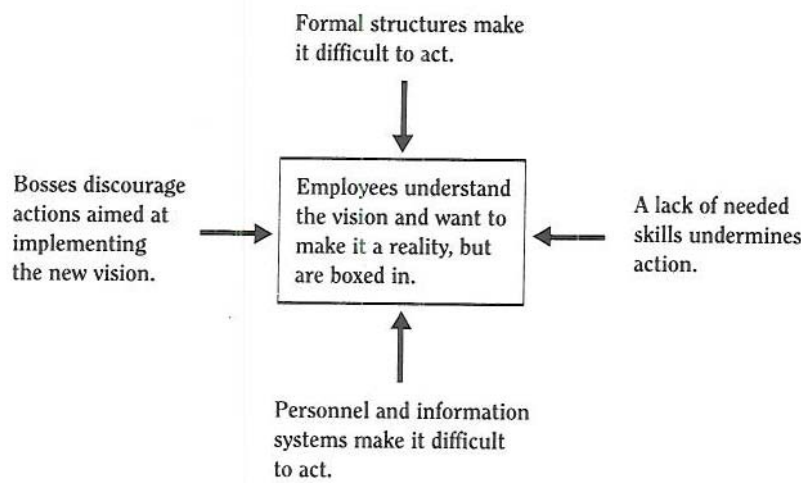


Figure 14. Four barriers to empowerment (From Kotter)

Organizational structure can have a significant impact on the ability to implement a new vision. While management may talk a big game about the new goals for the organization and empowering the employees to accomplish these goals, it will most likely be just that, talk, unless structural obstacles are removed. It is inevitable that existing structures (such as managerial organization) that have been in place for years may be counter-productive to new efforts. Employees may be told and encouraged to perform tasks differently in order to implement the planned changes, but if management is not realigned to coincide with these new methods then the change is likely to stall. Without structural changes, existing reporting procedures and approval processes will stand in the way of the new ideas and actions for which the organization is striving. The easiest way to overcome the structural obstacle may very well be to completely re-organize in order to remove unnecessary layers of management that will impede the execution of new processes.

A lack of proper training and skills must be accounted for in a major change effort. If an organization is attempting to significantly change the tasks performed by many employees it needs to consider what new behavior, skills, and attitudes may be needed to accomplish those tasks. The organization must provide the

necessary training and in adequate quantity to assure that employees have the proper skills to perform their new functions. If not, there is a risk that frustration and annoyance with the new processes can completely derail the change effort as employees may become apathetic or even vindictive in regard to the change.

Systems such as management information technology (IT) and human resources (HR) can be obstacles when they are not changed to align with the new vision. New tasks and processes will require new management IT systems to properly track and quantify results. HR appraisal systems must be changed to align ratings and awards with the new goals the organization is trying to achieve. Employees may be encouraged to perform new tasks or to take new risks in order to implement the proposed changes within the organization, but without a corresponding update to appraisal methods, the employees will inevitably act in their own best interest and continue to perform in a manner that corresponds to the existing rating structure.

Finally, even if an ideal vision and an excellent communication plan are in place, critics may remain that can derail the change process. Just as the workforce can be used as a powerful means to adopt the change, critics, especially in supervisory and managerial levels of the organization, can pose a significant barrier to successful transformation efforts. The ideal manner to address these individuals is quite simply to confront them directly and to have an honest discussion with them regarding why the proposed changes are necessary to the organization. The individual will either be able to align himself with the plan or an acceptable alternative should be developed that will prevent him from remaining an obstacle to the change.

b. Stage 5 - Application

Organizational change efforts are in depth, detailed and designed with much invested, as in the case of the Vector project. However, the effort is not the only place where the design must be placed, but also in the structure of the organization if it is deemed as a potential obstacle to change. If a change is required, then the people must be set up so as to eliminate any structural barriers that may take place. In Vector, if the ARDEC Project Officers will serve as empowered individuals with tremendous

responsibility for successfully passing through gates and proceeding into the next process steps, then the structure must be organized so as to prevent any unneeded layers of middle-level managers that may stand in their way. If management is in place that may serve to second-guess, criticize the ARDEC Project Officer's efforts, or worse, reprioritize their efforts so as to go against the Vector process, then a restructuring of the organization will be required.

One of the areas that have been discussed among Vector team members is the need for training of employees about the Vector process, and rightfully so since lack of training can understandably be seen as an obstacle toward change. One thing worth considering by the Vector team is not only what kind of training would be required but also to be aware of what this new training would translate to in terms of time and money. The team should be able to carefully study the types of skills and knowledge that would be essential for Vector to identify the training that would be needed, for how long, and to whom. Furthermore, with an eye toward what that would mean in terms of time and cost investment, the team can be creative in the design of the educational experiences to be delivered.

Another area that has been discussed in Vector team meetings is the alignment of systems to Vector. Sure, the IT systems may be in place, which is one of the areas where a significant amount of design was applied to including information sharing, documentation of best practices, but the alignment of HR-related systems, for example, may be an area that Vector team members may not have paid its due attention, based on Kotter's historic observations. Specifically, the Vector team must ensure that performance appraisals, compensation, promotions, succession planning all can be tied into the Vector vision otherwise Vector may lose the support of ARDEC's members almost immediately. This area is essential for providing that crucial incentive that would keep ARDEC members truly in sync with the vision of Vector.

And finally, the Vector team must keep in mind that many members, especially supervisors, and managers, will resist change from Vector not only because they do not agree with the changes, but rather because they simply have been so engrained with the old way of doing things for so long. Kotter explains the best manner

of dealing with this is to simply identify and confront these individuals in a manner of understanding their perspective to better explain the vision to them. Time and resources should be planned for and be ready for instances such as this in order to not disrupt the rest of the progress of Vector once it is deployed to the organization.

6. Stage 6 - Generating Short-term Wins

a. Stage 6 - Description

Major change efforts can take a significant amount of time to fully develop from concept to reality. Leadership can sometimes get caught up in the big picture or lost in their grandiose vision of change and as a result fail to focus on planning for the short-term wins necessary to keep all of the stake-holders onboard and motivated. Short-term wins are necessary in order to build the credibility needed to sustain change efforts over the long haul.

Real change is a long and continuous process. There are many true believers who understand this, and will strive to reach the goal, no matter what. Many others in the organization expect to see some sort of results to justify their hard work. Finally, there are the real dissenters. They are even more demanding in regard to seeing proof that the change effort is bringing the benefits that have been claimed. Short-term wins will go a long way toward quieting and possibly even turning some of these voices of dissent into supporters of the effort.

Many different activities take place while undertaking a major change effort. In order for a result to be defined as a short-term win for our purposes, it should have three characteristics:

1. It should be visible and large numbers of stakeholders should be able to see for themselves that the result is real and not hype.
2. The result should be unambiguous.
3. The result should be clearly related to the change effort. (121–122)

Planning for and producing short-term wins that meet these criteria will go a long way towards ensuring the success of the transformation process.

Now that we know what criteria should be met to determine if a result is a short-term win, we can look at what role short-term wins play in the transformation effort. Kotter explains that short-term wins help the organization's efforts in at least six ways as shown in Figure 15.

The Role of Short-Term Wins

- *Provide evidence that sacrifices are worth it:* Wins greatly help justify the short-term costs involved.
- *Reward change agents with a pat on the back:* After a lot of hard work, positive feedback builds morale and motivation.
- *Help fine-tune vision and strategies:* Short-term wins give the guiding coalition concrete data on the viability of their ideas.
- *Undermine cynics and self-serving resisters:* Clear improvements in performance make it difficult for people to block needed change.
- *Keep bosses on board:* Provides those higher in the hierarchy with evidence that the transformation is on track.
- *Build momentum:* Turns neutrals into supporters, reluctant supporters into active helpers, etc.

Figure 15. The role of short-term wins (From Kotter)

Short-term wins can go a long way toward greatly increasing the chance of success in a significant transformational effort. It will be beneficial if leadership and management are both on the same page in deciding upon what short-term wins to pursue. Strong leadership can motivate and focus employees on the long-term and the big picture, but management has the experience and the knowledge to track and measure results necessary to produce short-term wins and to keep employees motivated during what can sometimes be a challenging process.

b. *Stage 6 - Generating Short-term Wins–Application*

In our application to the Vector project, the Vector team must seriously consider the idea of generating short-term wins in order to win over the skeptics and provide the momentum needed to continue the success of a process, as Kotter states. Obviously, the short-term goals to use as ‘wins’ are dependent upon the change effort, but one potential area that may reap success enough to boast to all stakeholders may very well be in pilot programs running through the Vector process. Pilot programs are being considered by the team to iron out any unforeseen kinks in the process, but may offer an excellent case with plenty of data available to possible skeptics of any aspect of Vector. Any other ‘wins’ associated with clearly and visibly demonstrating the achievement of what the Vector Vision is about would accomplish the intent in this stage. Also worth considering would be to plan for short term wins to take place within 18 months of rollout, as Kotter identifies this timeframe as the most effective for large organizations such as ARDEC.

7. *Stage 7 - Consolidating Gains and Producing More Change*

a. *Stage 7 - Description*

Kotter’s research has led him to the conclusion that an organization’s engrained culture is one of the biggest obstacles to successfully implementing and maintaining change. Because it can take a long time to bring about change in large organizations, the leadership must be aware of the existing culture and how the ‘old methods’ of doing things can hamstring the process if unchecked. While short-term wins are necessary to keep stakeholders on board and moving forward with the change effort, leadership must be careful to moderate the level of celebration of these wins. If too much emphasis is placed on these wins, it can cause those who are involved to think that they have done enough and their enthusiasm for the change effort could wane. This is not how long term and successful change is implemented. A constant application of the ‘new’ change must be emphasized, so that it eventually becomes part of the culture.

As in nature, equilibrium is a barrier that is tough to breach. There will always be some resistance to change efforts and without a consolidation of gains and leadership emphasis on moving forward with more change, regression may occur. Once regression is allowed to occur it can be very difficult to re-energize the passion within the organization and among stakeholders that was created early in the process. Successful change requires leadership that can use short-term wins to motivate stakeholders to continue moving forward to achieve further goals. Effort must be applied to prevent complacency after a short-term win and instead using that win to motivate further action.

Also affecting the ability to continue producing lasting change within an organization is the interdependence of many existing systems. Simply put, a change in one area usually results in an unintended change or a required change in another area. An important first step in the process is for leadership to analyze the existing systems and to identify and eliminate as many interdependencies as possible. By eliminating interdependencies prior to beginning change actions the process will be simplified. Successful change usually requires many different small change efforts to be happening simultaneously. Again, this is where leadership has to take the proper actions and to delegate authority appropriately. Micromanagement from the top will inevitably fail as the proper amount of attention cannot be given to all of the ongoing efforts. Strong leadership, possessing a well devised plan for change, will analyze the overarching processes early and will understand that multiple changes will be overlapping. Proper delegation of responsibilities to the lowest levels possible will be necessary in order for all of these changes to coincide and to align themselves properly as the overall effort moves forward. Figure 16 describes a successful change effort at this stage.

What Stage 7 Looks Like in a Successful, Major Change Effort

- *More change, not less:* The guiding coalition uses the credibility afforded by short-term wins to tackle additional and bigger change projects.
- *More help:* Additional people are brought in, promoted, and developed to help with all the changes.
- *Leadership from senior management:* Senior people focus on maintaining clarity of shared purpose for the overall effort and keeping urgency levels up.
- *Project management and leadership from below:* Lower ranks in the hierarchy both provide leadership for specific projects and manage those projects.
- *Reduction of unnecessary interdependencies:* To make change easier in both the short and long term, managers identify unnecessary interdependencies and eliminate them.

Figure 16. Characteristics of a successful change effort at Stage 7 (From Kotter)

b. Stage 7 - Application

Whether or not the team understands at this early phase of the Vector project, Vector will have far reaching effects within ARDEC that will keep its leadership very busy for an extended period of time after rollout. As Kotter explains, the introduction of change in a large organization, such as ARDEC, takes a long time and therefore the team and ARDEC leadership must be careful to curb the celebration of any short-term wins such as a successful Vector Pilot program or even the first successful programs that implemented Vector. It may sound unworthy of consideration at this point in the project; however, the destruction of the sense of urgency for change that was so difficult to create in the first place, may serve as an opportunity to resist any attempt to undermine all progress. Therefore, it is imperative to plan for reaching a balance between excessive celebration and too little rewards. The success of the project may very well progress through the organization, while a well-planned change effort will adequately account for the rewards and incentives for the organization's members.

Furthermore, the Vector team needs to carefully consider the interdependence of ARDEC's organizations because, as mentioned above, changing one area or function within ARDEC will translate to change to any and all of the interdependent functions. For example, changing the role of the Systems Engineer at ARDEC will very well affect the role of the design engineer, especially if the latter was the one that assumed the tasks of the former in the "old way of doing things." Similarly, the addition of roles such as Gate-keepers will surely affect other areas such as the workload of these personnel or other interdependent functions and must be carefully considered.

Therefore, careful planning should begin early to better prepare ARDEC leadership for the long road that remains after rollout, carefully modifying organizational structures and roles of personnel, performance appraisal systems, and even eliminating unnecessary components within ARDEC, especially those that are inconsistent with Vector. As the organization progresses, the short term wins will help carry along the additional changes, and will provide the necessary momentum and credibility for continuing to propagate Vector. Also worth noting here is the importance of the role of leadership in this stage in the change effort. The role of leaders and managers should be focused on by the Vector team, because numerous efforts associated with the change are occurring at the same time, which often require management delegation.

8. Stage 8 - Anchoring New Approaches in the Culture

a. Stage 8 - Description

Building on stage 7 to produce meaningful and lasting change within a large organization, requires a firm commitment to the new methods and procedures that have been put in place as part of the change process. The biggest obstacle to tackle at this stage is the existing culture within the organization. An organization's culture may not be able to be laid out in writing like a vision or a mission statement, but it is a real and tangible thing nonetheless. As was discussed in previous chapters, culture is developed over time and becomes apparent in the way things are done on a daily basis in the organization, as well as the interactions between employees, and the way the organization deals with its customers. While the new changes are exactly what an

organization might need, if the culture does not align with the changes, it will take significant effort to make the changes stick.

Leaders should understand the effect that culture has on the employees and the organization and they should be focused from the start of a major change effort on addressing culture and needed changes within the organization. Organizational leaders should be cognizant of the fact that not only culture should be focused on throughout the change effort development, but that real change to an organization's culture actually occurs at the end of the change process, not at the beginning or during initial roll out of a change effort. In order to produce a successful change, both leadership and management must understand that new methods and processes will have to be closely aligned with an organization's core values or that the new methods will have to replace and ultimately become the organization's core values and part of its culture.

The constant involvement of leadership and management during the various stages of the change process will help move the process forward. However, in order to really bring about lasting change requires the new methods and approaches to be "anchored" with the organization's culture. Again, this understanding of culture and how it must also change, is crucial throughout the change effort. From the beginning, there should be an understanding of how numerous and varied systems, methodologies, values, and behaviors will have to be adjusted to ultimately change the overall culture into one that embraces all of the new methodologies and processes.

b. Stage 8 - Application

Based on the history of cultural change implications of large organizations, the culture that exists at ARDEC may very well be a difficult one to modify for the reasons identified above and throughout the paper. The Vector team must also understand that changes to any aspect of culture will only occur at this end-stage of the Vector rollout, not at the beginning. Kotter mentions that it is critical to understand the power of cultural aspects of change and that culture is really an inherent aspect associated with leadership just as structures and systems of the organization are inherent

to management. Therefore, leadership, once again will play a large role in ensuring that the new processes of Vector are not “graft[ed]...onto the old roots while killing off the inconsistent pieces,” but that new processes are associated with positive gains that are visible to the people as directly related to their new, altered actions (151). It is for this reason that any cultural changes associated with Vector will be realized at the end of the transformation process when actions of the organization’s members are changed and engrained. These new cultural changes would then be able to support any change in succession of organizational leaders years after the initial rollout with minimal chances of regression into the “old ways.” By carefully considering all of the stages above, namely, vision, communication, and short-term wins, the activities that led to the positive actions by this point in the transformation should be quite visible to the organization, or should be understood as crucially important to the organization’s leadership in all phases of the change effort.

V. CONCLUSIONS AND RECOMMENDATIONS

A. THE ISSUE AND CHALLENGES FACED BY THE VECTOR TEAM

Although the design of the Vector process requires the consideration of numerous details, one of the areas yet to be observed as being adequately planned for by the Vector team is related to the actual plans for deploying Vector to the ARDEC organization and the cultural implications surrounding Vector's rollout. Specifically, the report identified (in Chapter III) two major areas of concern that may prove to be the most challenging, based upon the authors' observations during the Vector design, their experience within the ARDEC organization, and on historical observations, specifically Kotter's common mistakes attributed to organizational change. These two areas were identified as the *Communication of Vector to ARDEC*, and *Vector Implementation Planning (Post-deployment and Enforcement)*. Each of these areas was organized into a series of problem statements that encompassed the issues and challenges the Vector team will need to face within these areas. All of these problem statements are addressed here by the consideration of Kotter's common mistakes typically found in organizations seeking change and in the application of his recommended steps to follow for an organization seeking change, all of which were discussed in depth within this report. In order to stay within the scope of the report, the problem statements are addressed and concluded below in the form of guidelines.

1. Communication of Vector to ARDEC

The challenges associated with the communication of Vector to the greater ARDEC organization, to include its internal and external stakeholders such as the workforce, the customers, and industry partners, was summarized in Chapter III with the following problem statement—*How can the Vector team effectively communicate the importance of Vector to ALL of the stakeholders (internal and external)?* Additionally, taking this concern a step further, beyond the communication of Vector's importance, how can the Vector team capitalize on the strength of the organization, in other words—*How can the Vector team garner the support from the greater organization (ARDEC) and*

customers required both during design and after deployment? These two problem statements, and the entire area of concern related to Communication of Vector to ARDEC, relate specifically to Kotter's stages associated with Establishing a Sense of Urgency (Stage 1), Developing a Vision and Strategy (Stage 3), Communicating the Change Vision (Stage 4) and Generating Short-Term Wins (Stage 6).

The Vector team can effectively communicate the importance of Vector to all stakeholders by establishing a sense of urgency amongst all stakeholders. The frank and continuous presentation and discussion of crises, and the potential consequences for not following Vector, would effectively infuse the workforce with reasons to pursue Vector changes, and this allows the stakeholders to associate the change effort as a real and necessary effort with reason and purpose for its existence. By establishing a sense of urgency for change, the stakeholders would be much more receptive to the proposed end-state that would result from Vector's adoption and would establish the groundwork for communicating the reasons for pursuing Vector; this would be accomplished with a well-thought out vision for Vector. A clear and concise vision combined with a well-established sense of urgency for the change are an absolute prerequisite for ensuring effective communication to all stakeholders and would play a huge role in garnering support from the entire organization. By creating and resourcefully communicating an effective vision, the organizational members and the customers would understand the importance of Vector and clearly see the benefits associated with it. This would translate to their additional support early on by way of assuring stakeholder feedback, assistance in design, and support in the rollout of the effort—all of which results in successful adoption of this transformational effort. In order to maintain momentum after the deployment of Vector, carefully planning out short-term wins such as strategically selected pilot programs and plans for publicizing the success of those programs would help to garner the required support from ARDEC's stakeholders.

2. Vector Implementation Planning (Post-deployment and Enforcement)

The challenges associated with Vector implementation planning, specifically after Vector's deployment and Vector's enforcement, revealed a number of areas that required consideration and they were summarized in Chapter III with three problem statements:

- How can the Vector team prepare for any resistance based on culture?
- How can the Vector team ensure Vector stays its course years after deployment?
- What else should the proponents of a change effort like Vector worry about as far as Organizational Culture?

First, directly pertaining to culture, and considering the fact that Vector will require the breaking away from old ways, which is never an easy task for an organization, *how can the Vector team prepare for any resistance based on culture?* Kotter's guidance related to Empowering Broad Based Action (Stage 5) would pertain to this area of concern. Change efforts must utilize the force of the entire organization in order for change to take place successfully. Therefore, Vector must accommodate and tailor to maximize the usage of the organization's momentum for Vector adoption and continued use after deployment. Any obstacle that may stand in the way of this kind of empowerment of the organization must be removed. Kotter points out that some of the common obstacles to empowerment include structures, skills, systems, and supervisors. The Vector team must be careful in studying these areas as they exist in the current organization and designing the changes to the areas that may be required for Vector adoption. Whether these changes require the removal of infrastructure barriers and/or organizational restructuring, by focusing on these known problem areas and carefully planning for these changes, the team is better prepared to overcome resistance based on culture.

Secondly, the Vector team fully understands that the fine-tuning of a change effort such as Vector does not necessarily end when Vector is rolled-out to the organization. In fact, for complex change efforts, it would be expected that the tweaking

of these efforts would take place for a long time after the rollout, and that this may very well outlast the tenure of the founding team and designers' change efforts. This brings us to the second question related to Vector Implementation Planning—*How can the Vector team ensure that Vector maintains adherence to its vision in the years after initial deployment?* The stage pertaining to Anchoring New Approaches in the Culture (Kotter's 8th stage) would provide the most guidance for this specific problem statement. Most importantly, the Vector team should grasp that to truly anchor these change efforts within the organization is a function of the organization's culture. This area pertaining to culture is covered in the last stage for a reason, as the changes in the culture may not occur until the prior stages are addressed and successful. The new processes that Vector will introduce should be associated with positive gains that are visible to the people and directly related to their new, altered actions. All of which would be facilitated by an organization with an understanding of the urgency for change, a change effort with a vision understood by all stakeholders, an empowered organization, and the rest of the 8 stages for creating major change. After considering these key areas, these new cultural changes would be able to have a standing chance against time and the changes in succession of organizational leaders years after the initial rollout with minimal possibility of regression to the "old ways."

Finally, since organizational change is not an easy task and the consideration of the changing organization's culture makes it all the more difficult, the question that begs to be asked is—*What else should a change effort like Vector be worried about as far as Organizational Culture?* Organizational culture can be viewed as the final frontier for a change effort's team to overcome; however, the success in the adequate consideration of culture by a major change, is maximized by its early planning stage. Since Kotter's Stage 8, which is the stage related to organizational culture, is the last of the 8-stage process, and since all stages were designed to be successive, the cultural considerations and planning are built into the 8 stage process. It is obvious that every organization is different, but understanding that organizations do not respond to change as easily as an individual would respond is the first step in understanding why change efforts need to focus heavily on creating urgency for change, developing a clear and concise vision and

thoroughly communicating this vision to the organization. By studying and understanding the common mistakes that Kotter has observed in organizations attempting to achieve significant change (Chapter III), the team should be better prepared to tackle the complex issues associated with an organization's culture.

B. GUIDELINES FROM HISTORICAL ORGANIZATIONAL CHANGE EFFORTS

The ability to garner the lessons learned from previous efforts and teams is one of the most important reasons for Vector's existence and similarly, is an area that would benefit many teams pursuing an organizational change effort. Fortunately, Kotter's experiences and observations related to major change efforts are summarized in his observed common mistakes that were discussed in Chapter III. These common mistakes are directly related to his 8-stage process for creating major change which was discussed in depth and applied to ARDEC and Vector, as a case study, in Chapter IV. The application of the 8-stage process serves as a guideline to ARDEC and Vector and to any other organization and change effort with historical observations built into these.

C. CONCLUSION

The successful design and rollout of an organizational change effort is a difficult endeavor and therefore not always achieved. It was the intent of this paper to study ARDEC and Vector for the purpose of offering the Vector team (or other similar change effort teams within government agencies) guidelines for application to the Vector project (or other organizational change efforts), as needed, to ensure the adequate consideration of the cultural implications of change. The guidelines were based upon the observations of leading experts in the area of organizational change, mainly those of John P. Kotter. Through the discussion within this report, the major objective of the report was satisfied, which consisted of serving as a case study on a real organizational change effort within a government organization, offering guidelines to ensure the adequate consideration of organizational culture in major change efforts.

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