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Preparing for transformational change: a framework for assessing organisational change readiness

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Abstract: The organisation in this case, along with the collaboration of staff and a consulting partner, completed an organisational change readiness assessment in anticipation of an enterprise-wide system transformation. Preparation of people ahead of disruptive technology implementation provides a unique opportunity in any organisation. The subject of the case, a state-wide public sector entity, lacks an institutionalised change management culture and faces challenges consistent with many government organisations. The assessment methodology resulted in a significant amount of data that provided people, process, and cultural insight. The challenge facing the state is how to respond to the assessment as they plan for the technology project.

Keywords: organisational readiness; organisational behaviour; readiness for change; business transformation; organisational change; behaviour change; strategy; technology project; enterprise resource planning; ERP.

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1 Introduction

Practitioners often tout preparation as the first step in readying organisations for change (Ackerman-Anderson and Anderson, 2010; Amborski and O'Rourke, 2012; Hiatt and Creasey, 2003; Kotter, 1996; Kotter and Cohen, 2012). As organisations embark on major business transformations the need to assess and develop organisational change readiness practices cannot be over emphasised. Too often, the implementations of information technology solutions to drive business transformations neglect the human factor. A number of studies have shown that new technology and best-in-class business processes alone cannot guide organisational success (Carton and Adam, 2003; Foster et al., 2004; Wei and Wang, 2004).

Understanding organisational culture and anticipating the impacts of change help form the foundation of effective implementation plans (Ke and Wei, 2005; Southern, 2005, 2006). Most organisations do not consider change readiness until a project is underway. However, applying the same readiness criteria and data gathering techniques prior to a transformation project provides organisations with advanced understanding of the areas where significant technology or process change is required. This advanced view provides insight to the people challenges. It also provides technology and process improvement teams with better awareness into project decisions and their downstream effect on the people who must adopt the new system and processes. In anticipation of significant changes where people, process, and technology face considerable disruption, application of practical assessment tools combined with proven theory offers a means of evaluating organisational readiness (Scaccia et al., 2015; Shea et al., 2014).

This paper illustrates the approach taken for developing an organisational change readiness assessment for a state-wide public sector institution planning an enterprise system transformation. The approach highlights the methodology and forward thinking for assessing the organisation's future readiness and adoption capabilities, emphasising proactive assessment and planning. In other words, allowing for the people related requirements to have an equal impact on project decisions as technology and process. The study involves a collaborative approach with the people affected, understanding their needs and wants within their respective jobs, not just revolutionising their world and expecting them to accept change because they are now required to do so. When the State of Vermont decided to act on its vision to improve administrative and operational effectiveness throughout the State, they engaged Ciber, Inc. to perform an organisational change readiness assessment, hereafter referred to as 'readiness assessment'.

The study makes three contributions to the literature. First, it adds to the literature on the benefits of including organisational change activities during technology transformation initiatives to ensure success (Foster et al., 2004; Hawking et al., 2004; Ke and Wei, 2005; Stein et al., 2003). Second the study posits that when complexity exists due to workforce behaviour change requirements, the interplay of evaluating organisational readiness and preparing for behaviour change is far more intricate than for technology adoption alone. This perspective contributes to the view that planning for change can lead to a positive attitude towards business transformation (Carton and Adam, 2003; Shea et al., 2014). Third, the study illuminates a methodology and approach for assessing organisational readiness for change. This methodology offers further insight into how organisations can evaluate readiness for change both at a personal and inter-organisational level (Armenakis et al., 1993; Shea et al., 2014).

2 Context of the study

This readiness assessment was conducted as part of a requirements gathering initiative prior to a technology project. The readiness assessment results provide the organisation with information that was previously not available. Knowing a significant project with numerous stakeholders was on the horizon, the challenge faced by the State is how to prepare for and transform organisational behaviour to support sustainable change.

The goal of the proposed technology initiative being evaluated is to continue building an efficient administrative framework of common, integrated systems, processes, and strategies to achieve administrative excellence and efficiency. The intention is to make

these changes without sacrificing work product quality and with no reduction of individual job satisfaction; in fact, expectations are that job satisfaction could actually improve due to an expected improvement in the overall business process.

The State of Vermont engaged Ciber, Inc. to perform an organisational change readiness assessment focused on the State's readiness to move forward with a state-wide technology and business process optimisation initiative. This approach was at a high enough level of understanding that it did not affect or bias the people being surveyed. Ciber, Inc. worked side-by side with the State's change management manager to undertake an assessment that considered the stability of business processes, competing projects, change saturation, resource availability, and required knowledge.

3 Conceptual framework

This paper presents a case on assessing organisational change readiness from the view point of assessment first, project start-up and implementation second. This appears to be, and is, the most obvious logical approach, however, from the authors' collective experience, it is the least implemented approach. Our field experience indicates most transformation initiatives look at technology first, business process improvement, second, and the people-related issues a dismal last. We introduce the philosophy of change management as it relates to information technology change and business transformation in organisations. Then, we introduce the case for the State, followed by the methodology used for the readiness assessment. We conclude by presenting the key findings, recommendations, and considerations for other organisations.

Organisational change management (OCM) refers to a planned approach for moving an organisation's people and processes in positive directions when faced with a need to alter well entrenched patterns or behaviours that support conducting business or providing services (Amborski and O'Rourke, 2012; Banhegyi, 2007; Hiatt and Creasey, 2003; Kotter, 1996). Effective change management includes:

- 1 assessing an organisation(s) and its leaderships' capability for change
- 2 identifying and anticipating people-related risks and concerns
- 3 gaining buy-in of key stakeholders and leaders for the changes
- 4 addressing organisation and cultural issues that may impact project success
- 5 developing targeted approaches to communication
- 6 building training and support for users at all levels
- 7 creating a process and approach to guiding individual behaviour throughout the organisation, both for the project under consideration and for future changes.

Change is a process, not a point in time or a single event. When launching a significant change initiative, one of the biggest mistakes an organisation can make is to view the change as an event that happens at a single point in time, such as the 'go-live' date of a new technology system and/or new business process being implemented. The State recognised an opportunity to create both a structure and culture that embraces change as a

way to conduct business and provide services for constituents. The readiness assessment was conducted outside of the context of a defined event. If a readiness assessment, such as the one presented in this case, is conducted with a blind view of what the changes may be, it can present a 'pure' reflection of what the surveyed population really feels about making changes to their environment, versus surveying the population 'knowing' the changes to come and thereby tainting the data by biasing the readiness survey with preconceived notions on what life will be like after the changes occur. This readiness assessment provides two views of the information gathered: unbiased change expectations and information on the potential effects of change before change begins.

3.1 The organisation

The State of Vermont organisation is intricate. It either delivers or controls services provided for all of its citizens. Services that are delivered by towns or cities (e.g., local roads, schools, etc.) are directly funded by the State. The State prides itself on its history of fostering and demonstrating independence and having a 'Vermont way' of conducting its affairs. The State government is comprised of three branches including six primary agencies in the executive branch and several independent departments. Although the Agency of Administration provides the tools and guidelines for common administrative functions, financial reporting, and employee compensation, each entity has a fair degree of autonomy. There are very few business processes that are truly enterprise-wide. For example, all bills are paid via the enterprise resource planning (ERP) system, but the mechanism by which invoices are received or who enters or approves a payment is decided by each operating entity.

The State has embarked on a technology transformation journey as part of an ongoing investment in its use of ERP for administrative functions. It is clear the State understands ERP projects are complex 'business transformation' projects that require organisations to re-engineer their current business processes in order to leverage the capabilities inherent in an ERP system. These systems are built on a 'best business practice' approach, so when implemented, long-practiced business procedures may need to be changed. In ERP implementations the software is usually not altered. The way business is performed is based on and integrated into the software, not the other way around. Customising software to fit business processes and needs is antiquated thinking in technology enabled, solution based and business optimisation projects.

In the spring of 2013, the State retired a legacy time and expense system. Literally, overnight all 9,700 State employees transitioned from a paper-based time and expense capture process to entering data online directly into the ERP system. This project was deemed a success as the legacy system was retired and employee compensation and reimbursement has continued seamlessly with imperceptible resistance from the affected employees.

In addition to the State's experience with large-scale ERP projects similar to the one above, it is also clear that the State has staff and leadership who have demonstrated to be both dedicated and resourceful on many other large state-wide projects. They developed work processes that enabled them to get the results they needed, often in challenging, resource constrained environments. The cornerstone of the time and expense process change management effort was a network of readiness coordinators (often called change agents in change literature). This group served as the conduit of information from the project team to employee stakeholders. Readiness coordinators were generally self-

selected with the approval of their department heads. This project was the first large-scale project with dedicated change management resources. Two State change management leads in partnership with a consultant on the implementation partner's team led this effort and the network.

Now, the State of Vermont is steadily moving toward another implementation of more current technologies. With the goal of being able to support constituents by providing the kind of access and functionality expected in today's increasingly responsive regulatory, business, and technology environments. The implementation will ultimately impact work performed, decision-making, and information available across the State. A substantial project of this nature necessitates a careful approach to effective change management. Guiding people and organisations through change is a task that is both essential and delicate. Perhaps nowhere is this more challenging than within government institutions, where it is not uncommon to find employees who may equate their value to the institution as being tied in significant ways to their understanding of the history of 'how things have always been done' as well as the knowledge of how to work with current processes and players. These people in reality are 'process historians'. This can mean that even small changes in business processes or technology tools are a threat to an individuals' sense of value or competence. This consequence can result in resistance and distraction as people feel a lack of confidence, or security, related to their work environment or, as with some older members of the workforce, a fear of being able to properly use and understand the new technology. Once resistance is entrenched and if left unaddressed, it can play out in many ways, none of which bode well for project success. Managing this risk makes change management an essential tool to support any project and is in fact a critical success factor. True success would equate to go-live being a non-event.

Implementing powerful technologies offers great possibilities that are attractive to the highest levels of State decision-makers. Technology offers an enormous opportunity for governments to do their jobs with more efficiency and transparency. Efforts range from adopting best-practice business processes offering gains in efficiency, applying new and better controls, to greater reliability and enhanced support for decision-making and analytics. To take advantage of these system-enabled process improvement opportunities the State must consider how the institution does business. Responsibilities of specific work groups and individuals are all brought into question. In reality, individuals in specific job roles will likely find themselves in need of new skill sets or facing new job accountability and responsibility. This 'new stuff' is not typically an individual's personal choice nor does the individual necessarily see a personal benefit, potentially leading to resistance. Overcoming such resistance or concern is one of the main reasons change management is included as a part of effective projects (Amborski and O'Rourke, 2012; Foster et al., 2004; Kotter and Cohen, 2012). One of the biggest challenges for change leaders is to find the 'what's in it for me' (WIIFM) for the various stakeholder groups and then a compelling way to communicate the personal and professional impact.

The State's challenge is how to leverage its experience with the previous successful ERP implementation while facing all of the same organisational challenges. The concept of change management is recognised as a critical component for success, but continues on many projects to lack an enterprise-wide focus and approach. Change management dynamics continue to be secondary to the technology being implemented.

4 Methodology

The project was initiated by the State of Vermont. The State wished to take a holistic view as they began planning for their next business transformation and enterprise-wide technology implementation. In addition to gathering information for decisions regarding technology solutions the State also wanted to anticipate the organisational change requirements needed for success.

The researchers for this project included two consulting resources along with one primary, and one supplemental resource from the State. This OCM team was provided with working space at the State offices in Vermont where they were onsite between January and May of 2015. These working arrangements allowed for both formal and casual interactions with management and users from the State. The data collected comprised observation notes, in-depth interviews, and readiness survey results. A five-step approach was used to gather information for the Organisational Change Readiness Assessment deliverable.

4.1 Meeting with OCM team to develop understanding and approach

The process began with problem formulation and potential issue identification. A series of collaborative meetings between the researchers and change managers from the sponsoring State agencies resulted in developing an initial approach for assessing the organisation's readiness for change. Subsequent meetings were conducted to collectively identify the primary stakeholders, their particular concerns, and potential benefits and constraints. Along with these discussions and interactions with the State, both business and academic literatures were reviewed for applicability to the assessment strategy.

4.2 Conduct in-person leadership interviews

In-depth interviews were conducted with 22 members of the State's leadership team. Individuals interviewed included both executive sponsors, members of the management team, and other organisational leaders representing six State agencies. Utilising a semi-structured interview protocol, the researchers were able to gather information in specific categories as well as create a space where managers were able to discuss strengths, concerns, and sources of pride for their respective organisation.

4.3 Prepare and conduct online change readiness survey

The change readiness survey was developed to look at the State's overall readiness for change. It was not designed to evaluate any specific project or initiative. The readiness survey is comprised of 13 sections of 48 statements in total in addition to open-ended questions to capture qualitative feedback on the wider and deeper issues under investigation. The readiness survey was structured using a five-point Likert-type scale ranging from '1' (strongly agree) to '5' (strongly disagree).

Distribution of the readiness survey was by means of an e-mail inviting employees to participate. The readiness survey was distributed to key contacts in the organisation who then distributed it widely within their agencies and departments. A follow-up progress reminder e-mail was sent out three days after the original e-mail. The readiness survey response is shown in Table 1.

Table 1 Readiness survey response

<i>Metrics</i>	<i>Results</i>
Participants	Due to the distribution methods used there was no way to determine how many employees received the survey. All statistics are based on all 9,645 payroll State employees potentially receiving the survey.
Responses	2,850 (30% of total employees on the payroll)
Comments	1,096 individual comments were recorded and analysed.

Source: Napier et al. (2015)

4.4 *Incorporate learning from technical and functional workshops*

Parallel to the assessment effort, there were technical and functional software discovery workshops. The researchers attended these workshops where possible throughout the course of the project. Findings and observations from these workshops were incorporated into the overall readiness assessment. Some of the findings from these workshops included known and predicted business process changes and organisational risks. For example, key project members were often unable to commit the required time to the project due to work obligations or competing projects. This was observed for both leadership and team members. Another example is the exposed complexity of project costing business processes that increased the challenge of gathering all requirements.

4.5 *Analyse, document, and present results.*

The volume of data collected was substantial. The qualitative data was comprised of over 500 comments from the leadership interviews and over 1,000 comments from the readiness survey. The raw data files were transcribed into a common format in order to maintain consistency and allow for importing into a qualitative data analysis tool. The next step was immersion into the data. Comments were read, and re-read in detail to insure complete familiarity with the content and to gain an initial understanding of the themes within the text. All comments were coded, grouped into categories and analysed, and if needed recoded.

The outcome of the coding process supported the creation of categories that captured the key aspects of the change readiness dimensions in the raw data. The categories created represent the most important themes to support assessing readiness for the project. Figure 1 shows the change readiness dimensions that were used to classify and code all of the comments.

Quantitative data from the online interviews was analysed in two ways. First, survey questions were structured using a five-point Likert scale and were mapped to the change readiness dimensions in Figure 1, enabling built in data analysis through the online survey tool. Second, data was analysed using heat map data visualisation techniques. A heat map is a data visualisation that uses colour to represent data values in a two-dimensional image. This type of visual aggregation allowed the researchers to view large

amounts of data looking for relevance, anomalies and trends. Trends or patterns in both columns and rows become evident because of the use of colour. Areas of interest can then be explored by revealing the question set or survey participant. Several heat map groupings were analysed such as employee level and agency. Figure 2 shows a subset of the heat map data sorted by agency.

Figure 1 Change readiness dimensions

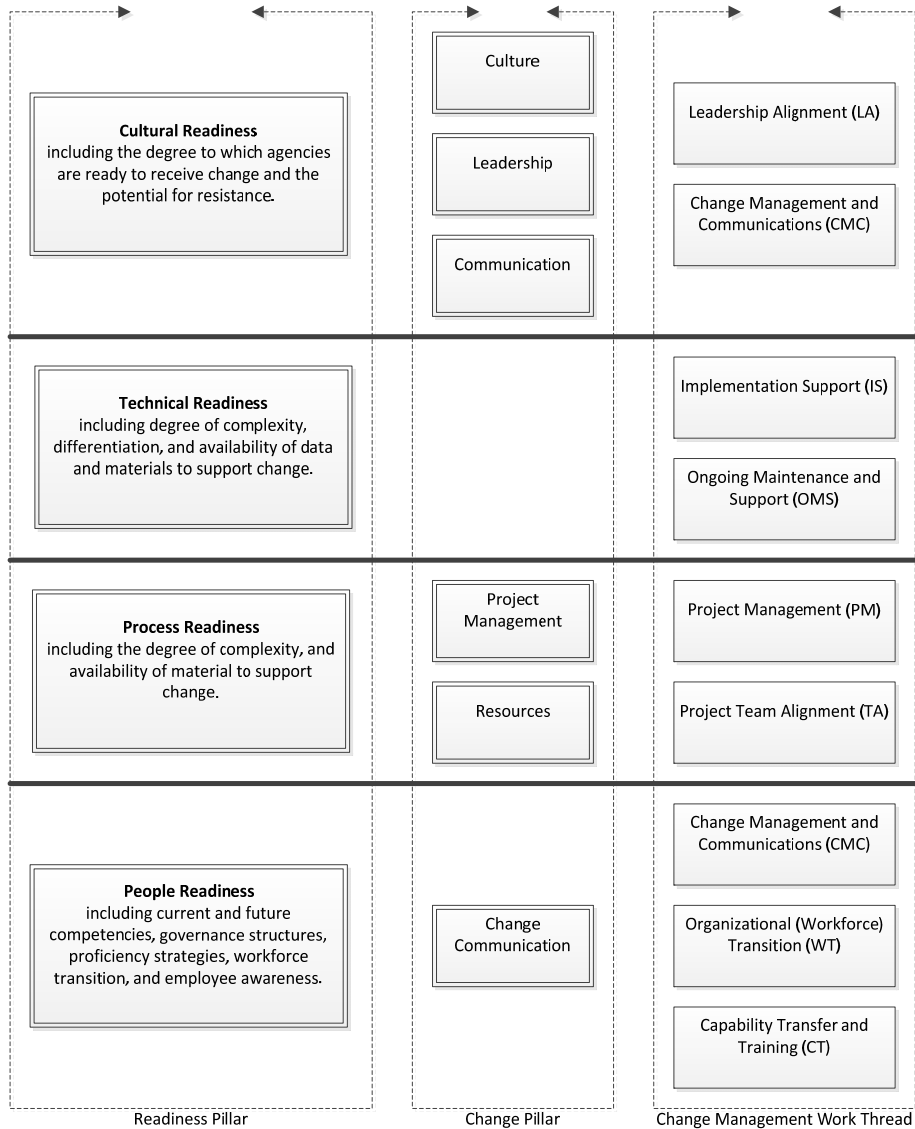
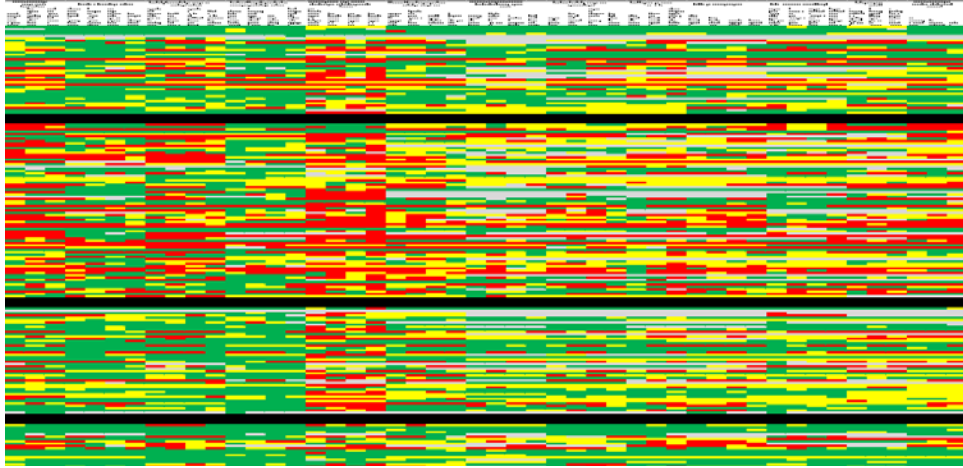


Figure 2 Subset of heat map results (see online version for colours)

5 Findings

The findings from this project, and eventually leading to this paper, are both interesting and somewhat complex. The data is interesting because of the broad human landscape it covers. From a job responsibility perspective, the data includes a far larger sample size than anticipated and ranges from entry-level employee to Commissioner (Agency, Department or Division Head) for the many areas surveyed. The statistically significant survey response provided confidence in the results. Furthermore, the data allowed the State to see the distinct differences between the various employee groups and what was unique. Each group demonstrated different ‘change needs’ or restated, expressed a distinct perspective on ‘WIIFM’. Organisational size can cloud or distort the findings and serve as a distraction preventing visibility into the significant differences in employee change needs by organisational or job position. This fuels the challenge of assessing change readiness concerns, as a single approach may not fit the diversity of organisational perspectives. The extremely high participation rate leads to stronger and more distinct results and conclusions. It also makes analysis of the data difficult due to the sheer volume of information.

The results of the data analysis revealed two key areas of interest for the State. First, were the known, but not proven, differences between the various State agencies regarding their readiness to accept both changes in technology and changes in business process. These differences had always been suspected and discussed but never proven with real data. The readiness survey confirmed this understanding and revealed even more insights. There is a ‘business maturity level’ in the various agencies and when plotted reveals a ‘continuum’ much like any other maturity model. This could be the case for many reasons; however, the team felt that this was mostly due to the autonomy that was given each agency to manage its own affairs and often, its own processes. One of the State’s goals for this readiness assessment and the follow-on implementation project is to drive standardised business processes across all State agencies. This would create a number of

economies of scale for the State but, as the data revealed, may be more difficult than the State previously thought.

The second key area of interest is how organisational position or job level relates to both change acceptance and desire to drive change for making both business process and technology improvements. Again, this is often a presumption about organisations and the people within them. The readiness assessment allowed the State to gather enough data to really understand the many dimensions that influence this.

A State government, not unlike any private sector company, is a complex microcosm of technology, business processes, and people. There are also unique aspects of government, like appointed positions, worker longevity, election cycles, etc. The State has the opportunity to utilise this data to support and structure an effective change management effort for the upcoming ERP implementation project. Because of this readiness assessment the State will be better positioned to prepare its change agents, workers, managers, and leadership through targeted communications and a targeted change management focus. A focused change management effort will not only help them accept the changes that are required for the new system and business process transformation, but may build a desire in the State workers for a movement toward that of continuous improvement.

6 Implications

This study has identified a number of pertinent implications for organisations considering major technology transformations. First, the findings offer insight into the importance of accessing organisational change readiness prior to a major technology implementation. This can help organisations understand how to engage employees in the change process, tasks and activities. In fact, ensuring organisational involvement and commitment to change is critical.

Second, organisational factors play a dynamic role in determining the outcome of organisational change. Emphasis has been placed on the importance of understanding the history of organisational change efforts when planning any new transformation efforts (Pettigrew et al., 1992). In this organisation examples of successful changes included detailed planning and significant communication and involvement of key stakeholders. Success was also contingent on providing training when new skills were required. Negative experiences were linked with poor communications, hasty implementation, insufficient planning, and lack of involvement from key stakeholders. These findings are consistent with other studies finding that ownership, effective communication, and training were all critical for successful implementation of transformational change (Robey et al., 2002; Tichy, 1982; van der Voet, 2014).

7 Discussion

This study provides a framework for a theory-based measure of organisational readiness for change, referred to as organisational readiness for change (ORC). Showing how an organisation can be evaluated in order to make recommendations to prepare for large-scale organisational change, well in advance of the actual start of the transformation project. Engaging in this type of an assessment is fascinating from both the academic and

consulting practitioner perspective. It is equally fascinating from the experienced business manager's perspective. Managers through the years have been responsible for the integration of the wonderment of technology advancement, business process optimisation, and the unpredictable behaviours of the humans that must work with all these innovations. Given a very short time frame for the readiness assessment and the large amount of accumulated data the client-consultant collaboration was critical to successful analysis and presentation of the organisational learning. While some of the change readiness factors outlined in the resulting readiness assessment may seem far removed from technology impacts, in the end, they are the very core of what will make a positive implementation outcome a reality for the State of Vermont.

The State faces many challenges as it contemplates the results of the readiness assessment. Although the State successfully implemented transformative technology leveraging a network of change agents in 2013, the spectrum of results and data surrounding support for change indicate that cultural obstacles still exist. Change management is recognised as an important concept and the people side of change is often quoted, by State leaders, as critical to success. However, the process and tools to support change management across the enterprise are not institutionalised. There are pockets of success that are obvious when the survey heat map is sorted by Agency. Many of these successful pockets have a strong leader who is able to motivate and mobilise the workforce. Strength is based on the person being a leader, not on a person being a good manager and relies on a well-developed practice of change management techniques. Leadership takes the change techniques and not only implements and supports them, but encourages people to think beyond the normal boundaries of their responsibility.

The readiness assessment results support the necessity to focus on the people who are essential to ensure adoption of the impacts associated with the pending technology project. The qualitative comments and feedback reflect what the management team expected. The strength of this readiness assessment is the non-debatable quantitative results. The management team is confident of its ability to successfully execute large-scale technology projects, but the data shows that there is work to be done on the human side. The readiness assessment sends a clear signal that the task facing leadership is to clarify and communicate the objectives of the technology transformation efforts. Readiness assessment participants demonstrated a lack of understanding about direction, unclear expectations, and concern that input from the 'right' people would be missed. There is no argument that communication is critical to change efforts, however leadership must invest the effort to define objectives and success.

Looking ahead, the State is in the preliminary stages of designing a team to address change for the upcoming project. This team will be the founding members of the change agent network and will form before formal project kick off. Members will represent a variety of entities. Entities with strong change profiles, based on assessment results, will be recruited. The change management team is not a steering committee nor will it govern project execution. However, it will serve to monitor and influence the overlap of people, process, and technology. The objectives of the team will be to structure and develop change activities from project planning through post go-live. The concept is to integrate change activities effectively into the project structure and in such a way that assures that change resources are allocated appropriately.

Despite potential challenges, the State has the opportunity to leverage the practices of successful projects upon which to build an effective approach to change management. There is executive level sponsorship; there are management team members dedicated to a

project's success who exhibit strong leadership; there are team members with a good understanding of their business areas as well as a growing understanding of the potential that an integrated system can offer; and there is strong technical staff committed to project realisation. With focused and structured attention; explicit roles, responsibilities, and expectations; and a solid approach to project management, methodology and leadership, the State has the foundation in place for a successful implementation.

8 Conclusions

The State of Vermont recognised the need to understand their readiness for change; however, few specific methodological approaches had been proposed. This study proposed the use of a combination of qualitative and quantitative methods including in-person interviews, and a readiness survey with a wide population of employees. The use of multiple methods ensured that a wide range of data and respondents were included. Data from this combination of methods identified barriers and facilitators for change. The findings support development of an organisational change strategy involving all levels of the organisation.

Organisational change transcends the implementation of any application, technology, or business process. Change involves moving the people, processes, and culture that are the core of the overall organisation in new directions, perhaps in directions no one foresaw or in directions that would be difficult or impossible to implement. Change also involves driving adoption of these new behaviours, processes, and technologies by the true end users of the system, the people who actually breathe life into the day-to-day business processes and system usage. This appreciation will always be a more challenging task than any project that focuses on technology alone.

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