

# ***ORGANIZATIONAL ARCHITECTURE: A FRAMEWORK FOR SUCCESSFUL TRANSFORMATION***

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## ***ABSTRACT***

To create value for customers, organizations need to become increasingly agile. This challenge has been present for some time. However, few organizations have truly developed a framework (i.e., organizational architecture) that speaks to this challenge and ensures successful performance in an environment of accelerated change and heightened competition. Instead, organizations that have embraced quality management practices have primarily focused on product/service quality requirements and cost containment.

Value is more than quality; it spans the supplier-organization-customer chain and occurs over the lifetime of customers and their ongoing use of products/services. Value is also more than cost containment. All aspects of an organization need to be continually studied, refined and/or recreated, and aligned to serve current and anticipated customer needs, wants, and expectations.

This paper overviews the purpose of organizational architecture. It addresses why organizational architecture is a fundamental requirement for a successful organization-wide total quality management initiative. Particular emphasis is given to a step-by-step approach an organization can take to discover or create its own organizational architecture. The paper briefly discusses how to use the "new" architecture and ends by identifying the leadership qualities critical to its creation.

## ***THE WHAT AND WHY OF ORGANIZATIONAL ARCHITECTURE***

The term "organizational architecture" emerged out of the consulting work performed by Delta Consulting and is first documented in the book, *Organizational Architecture: Designs for Changing Organizations* (Nadler, et. al., 1992). The concept is also explored in a *Harvard Business Review* article titled, "The CEO as Organization Architect" (Howard, 1992) and in the book, *Discontinuous Change* (Nadler, et. al., 1995).

Organizational architecture covers more than a typical reorganization, restructuring, re-engineering, or strategic planning initiative. It involves the creation and ongoing management of a framework for the "organization of the future" that encompasses *all* formal and informal systems and structures as well as their inherent interactions. This framework guides continual, fundamental organization-wide transformation and enables both a content (what) and process (how) focus on large-scale change. Large-scale organizational change is a lasting change in the character of the organization that significantly alters its performance (Beckhard and Pritchard, 1992).

Most architectures that exist today have been unconsciously put together in a haphazard fashion over the lifespan of the organization. Thus, initiatives conflict with each other in terms of goals and priorities, the same terms are inconsistently defined, and organizational direction appears fragmented and unfocused. It is as though we have been given many jigsaw puzzle pieces to assemble, but in the process of putting them together we discover that the pieces are from different jigsaw puzzles. In addition, change initiatives brought in under the guise of total quality management, reengineering, or strategic planning are not as successful as anticipated because the underlying culture is not addressed or fundamentally altered to align with them.

The goal of organizational architecture is to create organizations that provide ongoing value to current and future customers while, at the same time, they optimize the performance of, and align, all aspects of the system. In this context, the system includes suppliers, the organization, its distribution systems, its customers, and the external environment within which these elements

operate on a regular basis. To proactively, rather than reactively, respond to internal and external environmental forces requires today's organizations to be more agile than ever before. Without mechanisms in place to continually transform, organizations tend to operate out of a crisis mentality. Operating from this mentality over long periods of time can cause high turnover, low morale, increased stress, and inefficient work processes. In addition, downsizing may be seen as the only option for addressing increasing costs and loss of market.

## ***A PREREQUISITE TO TOTAL QUALITY MANAGEMENT***

Numerous articles and books have been written since the early 1990's about failed total quality management efforts. Other publications have proposed that "quality is dead" in the United States. What went wrong?

A typical total quality management initiative starts out with training for senior leaders on key quality concepts, tools, and methods. Concepts such as variation, work as a process, and the importance of customer requirements are meshed with the seven basic quality tools (e.g., run charts, cause-and-effect diagrams, pareto charts, etc.) and linked to problem solving. In this training there may be some basic meeting management, team development, and facilitation skills, as well as talk of the need for culture change. If the organization is more analytic in its focus, the tools and methods will be stressed; if it is more people-oriented, the team development and meeting management approaches will be highlighted. The training is then cascaded down to the rest of the employees in the organization, with the ultimate goal of finding ways to solve today's problems through the use of process action teams.

If the organization is fortunate enough to employ organizational development/effectiveness professionals, it might attempt to alter the underlying culture to bring it into alignment with the training. But, how frequently are all formal and informal systems and structures, along with their inherent interactions, systematically studied and aligned with these new concepts, tools, and methods as part of a total quality management effort? In addition, since problem solving methods are designed primarily to take performance back to what it was before the problem occurred, what concepts, tools, and methods are taught to promote progress and growth? Finally, what is an organization to do next once it has accomplished this training, initiated process action teams, and assessed baseline performance against self-assessment criteria based on the Malcolm Baldrige National Quality Award?

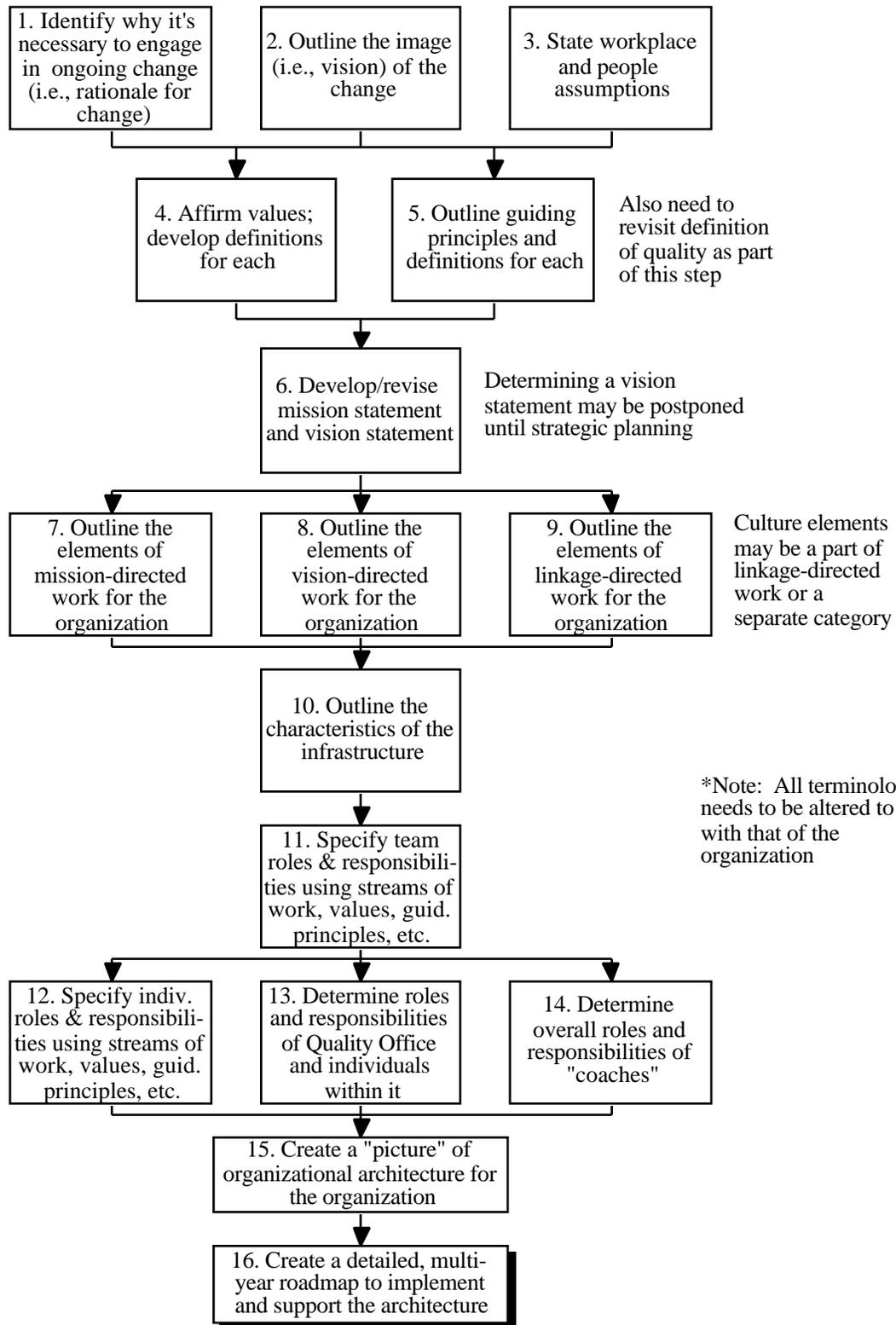
Not surprisingly, many organizations have abandoned total quality management in search of other performance improvement approaches. The unfortunate part about this search is that most, if not all of these approaches, only address changing "artifacts" (i.e., that which is visible, such as organizational structure, work processes, policies, etc.). They ignore the need to address the underlying assumptions, values, and beliefs that can inhibit any kind of change management initiative.

## ***DEVELOPING AN ORGANIZATIONAL ARCHITECTURE***

It can be paralyzing to members of an organization to recognize that they need to fundamentally recreate all aspects of an organization's functioning in order to proactively respond to environmental forces and survive in the future. This paralysis is usually caused by a lack of knowledge about how to systematically go about the process of fundamental, organization-wide transformation.

The flowchart in Figure 1 provides one method for organization-wide transformation. Transformation is defined here as "the radical shift from one state of being to another, where the new state is uncertain until it emerges and, by definition, is better able to meet the more sophisticated demands of the environment than the old 'tried and true' state" (Ackerman Anderson, Anderson, and Marquardt, 1997). This 16 step method draws on the change formula that states that change will occur when the product of dissatisfaction (D) with the present situation, a vision

**Figure 1: Method for Developing an Organizational Architecture\***



(V) of what is possible, and first steps (F) toward reaching the vision are greater than the resistance to change (i.e.,  $(D) \times (V) \times (F) > R$ ) (Beckhard and Harris, 1987). If only one of these variables (D, V, or F) is at or near zero, the product of the three will also be at or near zero, thus resistance to change will not be overcome. In Figure 1, step 1 captures "dissatisfaction," step 2 addresses "vision," and step 16 outlines "first steps."

Before embarking on this approach, it is critical that leaders throughout the organization are educated on the "what" and "why" of organizational architecture, the 16 step method, and transformational change. Due to the rigor and intensity of transformational approaches to change, it is strongly recommended that organizational architecture work *not* be initiated if leaders decide to skip over the education requirement. This education, with the assistance of an experienced organizational architecture process guide, will help the organization plan out how to accomplish each step, develop a timeline for their accomplishment, and involve the appropriate people in organizational architecture development activities. The start of the planning and timeline development work must occur soon after the completion of the education phase and needs to continue on a regular basis throughout the 16 steps. In most organizations, senior organizational and union leaders, all Quality Office members, and an experienced organizational architecture process guide are collectively responsible for the planning and timeline work. Based on the needs of the organization, others may be involved in it over time.

Most organizations put together a team to accomplish the 16 steps. Key considerations when creating this team include a) using the current leadership structure to spearhead the change (rather than creating a parallel organizational structure), b) involving as many individuals as possible (based on the belief that involvement promotes commitment), c) not excluding those who may be skeptical of this approach, and d) utilizing members of the Quality Office as coaches, facilitators, and process guide assistants. In addition, in union environments it is critical that union leadership be intricately involved. It is not unusual for the organizational architecture development team to be as large as 60 - 75 people. The first meeting of the team, by necessity, needs to be organized around the topics of team purpose and membership, ground rules (a.k.a. rules of engagement), and roles and responsibilities (leader, members, process guide, facilitator, scribe, and recorder).

To deal with the dynamics of large groups (refer to the discussion on "leadership qualities at the end of the paper on page 9), the large group setting is used to generate information and make final decisions. However, it is critical that subgroups be used to organize and critique the information, and generate a draft of the output(s) of a particular step. To maintain involvement and foster commitment, each member needs to be a member of a subgroup throughout the 16 steps.

For each step, it is critical that the organization use terminology that fits the needs and character of the enterprise. Key words and phrases need to be defined because of the limiting nature of the English language and the need to create a common mental model of the future. As well as documenting the outcome of each step (the "what"), it is important to record "why" each step is critical to the organization's architecture and "how" the output of each step will be utilized in the organization.

The following sections describe the need for each step and how to approach them. Keep in mind that these steps are iterative in nature. In order to achieve overall alignment, the output of each step must be consistent with the output of the steps that occur both before and after it.

### ***Steps 1 and 2: Addressing Resistance to Change***

Step 1 focuses on why it is necessary for the organization to engage in ongoing change. The output of this step usually includes a) the organization's definition of organizational architecture, b) a description of the need for ongoing transformational change, c) the benefits of creating a dynamic framework for change, and d) the disadvantages to the organization of not engaging in ongoing change. Topics "b," "c," and "d" may be brainstormed in the large group or generated individually. An affinity diagram (Gitlow and Process Management International, 1990) is a useful tool for organizing the information and identifying underlying themes.

Step 2 captures the overall image, or vision, of what is possible to create through organizational architecture work over a period of many years. Based on their initial education and

prior learning's and experiences, team members are led through a visioning exercise to "experience" the looks, sounds, and feelings of the "organization of the future." This perceptual information is best captured and organized through the use of an affinity diagram. It is important to keep in mind that the output of step 2 will eventually need to be critiqued against the outputs of steps 3-5 in order to ensure consistency and alignment within the organizational architecture.

The need to go through these steps is related to two elements of the change formula described earlier in this paper. These elements are "dissatisfaction" and "vision."

### ***Steps 3-5: The Cultural Aspects of Change***

Step 3, workplace and people assumptions, step 4, values, and step 5, guiding principles, are grounded in Edgar Schein's model of culture. He postulates three levels of culture (1992).

"The first level, artifacts, includes observable daily features of organizational life such as activities, rituals, jargon, office layouts, and so forth. The second level, values and beliefs, includes judgments about what is good and bad, which make sense of how actions are evaluated as exemplary or ineffective. The third level, basic assumptions, includes our deepest and most comprehensive explanation of reality – our views of fundamental truths about people and the world (Dooley, 1995).

Once common definitions of the terms assumptions, values, and guiding principles are agreed upon by team members, they individually or collectively generate assumptions, values, and guiding principles they want to live by in the future. Prior documents that identify these items are used as inputs to these steps. As noted before in steps 1 and 2, an affinity diagram is a useful tool for organizing and identifying underlying themes for the items generated in these three steps.

If the organization has embraced the basic tenets of quality management, there is an additional task in step 5. The term "quality" needs to be defined for use in future process management activities (to be discussed in steps 7-9) based on consumer perceptions of quality research (e.g., Silverman and Grover, 1995).

The organization needs to go through these steps in order to bring "tacit" knowledge to the "explicit" level in the organization. Frequently, the new assumptions, values, and guiding principles do not match behaviors or document (i.e., artifacts) that are exhibited in the organization. These steps are the first move toward identification of these inconsistencies and the need to create new knowledge.

### ***Steps 6-9: The Work of the Organization***

Steps 6-9 are based on study of the organization's mission and vision statements. Mission and vision are distinct terms (Silverman, 1990). A mission statement is "a broadly defined but enduring statement of purpose that distinguishes a business from other firms of its type and identifies the scope of its operation in product and market terms" (Pearce, 1982). It defines the organization's reason for existence (i.e., "why" the organization exists today) and contains no evaluative terms. A vision statement is "a mental image of a possible and desirable future state of the organization ... (which) articulates a view of a realistic, credible, attractive future for the organization, a condition that is better in some important ways than what now exists" (Bennis and Nanus, 1985). It defines, from a customer value perspective, "why" the organization needs to exist in the future.

Mission and vision statements guide and support different types of activities within the organization. For example, a mission statement guides the identification and study of work processes at the front-line of the organization. It also supports activities around "organizing the work environment," also known as the "5 S's" (Osada, 1991). These activities fall under the umbrella of mission-directed work. The organization's vision guides strategic planning and innovation activities. These activities are couched within vision-directed work.

There is also a third set of activities that occurs within organizations. This work emanates from activities that cut across both mission and vision activities. Examples include the identification and study of cross-functional activities, studying the organization as a system, monitoring of organization-wide measures, and the development, implementation and evaluation of organization-wide policies. These activities fall under the umbrella of linkage-directed work. For most

organizations, activities related to culture development and maintenance also fall under linkage-directed work.

Step 6 encompasses the development or revision of the organization's mission and vision statements. Team members, in subgroups, use the definitions of mission and vision, and the criteria for "good" mission and vision statements, to critique the statements that currently exist and to revise them, if necessary. If these statements do not exist, they are developed based on the definitions and criteria. The organization may elect not to revise or develop its vision statement in this step, especially if the organization is in the midst of collecting environmental information for strategic planning.

Steps 7-9 specify current and future mission-, vision, and linkage-directed activities. Results of the organization's past audits, or self-assessments based on the Malcolm Baldrige National Quality Award criteria, are used as the input to these steps. In addition, future activities based on other audit, assessment, or organizational effectiveness criteria are also sought out and incorporated at this time. These activities must foster study of all systems, structures, processes, and policies within the organization in order to promote continual, organization-wide transformation. Keep in mind, in many cases it is the "meta" work activities that are being identified during these steps.

When documented, the activities are generalized for the organization as a whole. For example, "identify the titles of work processes," "develop a method for work process standardization," and "develop a supplier partnership model" are appropriate activity statements, whereas "administrative support staff need to identify metrics for 'x' work process" is too specific.

Once current and future mission-, vision, and linkage-directed activities, they are then flushed-out using systematic diagrams (a.k.a. tree diagrams) (Gitlow and Process Management International, 1990). This work occurs from a process perspective, e.g., what are all the things that need to happen to complete "identify the titles of work processes" throughout the organization. When subgroups are formed to accomplish this work, the outputs of their work must be coordinated for consistency and alignment across all three of these steps. It is important to keep in mind that steps 11-14 will generate additional mission-, vision-, and linkage-directed work activities that need to be added to the outputs of steps 7-9.

Steps 6-9 describe the future work that must occur in the organization in order for it to *continually transform* to provide value to its customers. For most organizations, this work is new when compared to the tasks that are accomplished each day to produce products and services. For others, it reinforces the need to systematize and fully integrate activities that may have been initiated through total quality management, reengineering, and/or organizational effectiveness efforts.

It is strongly advised that two other major undertakings occur between steps 6 and 7. The first is the collection of organization-wide input and feedback on the outputs of the first six steps. This data collection initiative serves several purposes. It recognizes the criticality of involving the entire system in developing these outputs, pushes team members to communicate these outputs to others in a manner that is understandable to those who may not be familiar with this work, and confirms that organization-wide transformational change is underway.

The second undertaking is the development and presentation of training workshops to all organizational architecture team members on the outputs of the first six steps. This training must be experiential in nature in order to shift new "explicit" knowledge to new "tacit" knowledge (Takeuchi, 1997) and have this tacit knowledge become the basis of leadership behaviors that fully support the newly created organizational architecture. Eventually this training will need to be provided to all members of the organization.

### ***Steps 10-14: Creating the Infrastructure to Support the Future Work and Ongoing Organization-Wide Change***

Only after the outputs of steps 7-9 have been realized, can the enterprise define the supporting infrastructure. Infrastructure is defined here as the underlying framework behind the organization's people structure.

Step 10, "outline the characteristics (i.e., principles) of the infrastructure" is normally done by the entire organizational architecture team. First, the team reviews the outputs of the first six steps.

In this review they are looking for infrastructure principles that are embedded into this work. Then, they may generate additional infrastructure principles that complement those identified previously. These additional infrastructure principles, by definition, must include a "form follows function" view of organizational structure (note: this is because steps 6-9 describe "function" and steps 11-14 describe "form"). "Failure to attend to 'form follows function' management can result in mismatches, misalignments of effort, and inordinate attention being paid to relationships instead of to work" (Beckhard and Pritchard, 1992).

In organizations where the current formal structure must remain intact because of higher directives, the organization needs to describe a principle that acknowledges this "fact of life" and another principle that states the new structure will be overlaid on the existing structure. The existing structure may be used with higher levels (e.g., corporate or higher headquarters) for reporting purposes, whereas the infrastructure characteristics will be used to design the organizational structure for making decisions and performing daily work.

The rest of the work in steps 11-14 usually takes place in subgroups. The first work that needs to occur is a part of step 11, specify team roles and responsibilities. (Please note that this step assumes an infrastructure characteristic that supports organization-wide teamwork.) The team structure model for the entire organization must be identified based on the infrastructure characteristics output of step 10. This model includes the use of both permanent and temporary teams.

Once this work is completed, permanent team members, by job position can be defined throughout the organization. In addition, in steps 11 and 12, team and individual (as defined by organizational level based on the new team structure – senior management team leader, senior management team members, first-line team leaders, first-line team members, etc.) roles, responsibilities, and relationships can be redefined based on the outputs of steps 7-9. Keep in mind that the systematic diagram activities documented in steps 7-9 must be tightly intertwined with the very essence of the organization and not positioned in these new roles and responsibilities as "add-on" work. To ensure future team and individual roles and responsibilities are carried out, they need to become a part of the documentation for each position in the organization.

Activities that also need to be accomplished in step 11 include identification of existing permanent and temporary teams, critique of these existing teams against the new team structure model (i.e., should they continue to exist in the future), and the identification of generic roles and responsibilities for temporary teams (e.g., process action teams).

Step 13, determine the roles, responsibilities, and relationships of the Quality Office (or the office that will support architecture implementation) and the individuals within it, can occur once the team structure model has been identified. This step assumes some part of the organization will be given, at the completion of the 16 step method, the responsibility to support leadership in organizational architecture development and its ongoing review. Some organizations also include the identification of generic external consultant roles, responsibilities, and relationships in this step.

Step 14, determine overall roles, responsibilities, and relationships of "coaches" assumes all individual leaders and their respective teams will need to be trained and mentored just-in-time in order for people to fully transition into redefined team and individual roles, responsibilities, and relationships. If the organization decides on a permanent team structure model whereby all "formal" organizational leaders no longer lead teams, those who do not lead a team may, by definition, become coaches as part of their daily job responsibilities. In addition, the organization may choose to employ full-time coaches or have others assume the role of coach as part of their daily work. If the role of coach is new to the organization, it may be necessary to define the coach development process at this time.

During steps 11-14, additional mission-, vision-, and linkage-directed work activities may arise (e.g., how to develop coaches). These activities need to be added to the systematic diagrams generated in steps 7-9.

For the organization to perform the work necessary to produce value-added products and services for its customers, as well as continually transform itself (as defined by the work identified in steps 7-9), it needs to ensure all aspects of the supporting infrastructure are aligned with *all* of these activities. In addition, it also needs to guarantee that individual roles, responsibilities, and

relationships mesh with the permanent and temporary team roles, responsibilities, and relationships.

### ***Step 15: Visually Tying Together Steps 2-14***

Up to this point, much of the output of each of these steps is documented in words by the organizational architecture development team. However, in order to communicate the overall implications of this work to all current and future members of the organization, words become cumbersome. The purpose of step 15 is to tie together the outputs of steps 2 through 14 in one or more descriptive pictures that allow for an interpretation far beyond the written words. The picture(s) also need to be in consonance with the output of these steps. For example, if the concept of "systems" is key, the picture(s) should be representative of a system. In addition, the concepts of value creation and continual transformation also need to be part of the visual(s).

### ***Step 16: Creating a Long and Short Term Roadmap to Implement Steps 2-15***

Step 16, creation of a long and short term road map for implementation of steps 2-15, are grounded in the final outputs of steps 7-9. Thus, it is absolutely critical that the output of steps 11-14 on infrastructure are incorporated into the systematic diagram output from steps 7-9. The long term road map will span a minimum of five years, whereas the short term roadmap may describe, in detail, the first 12 to 18 months of it. In most circumstances, the individuals who have been involved in the planning work associated with the 16 step approach (i.e., senior organizational and union leaders, all Quality Office members, and an experienced organizational architecture process guide) create the first draft of these roadmaps for review and critique by the entire organizational development architecture team.

One way of creating the long term roadmap is to organize the information contained in the systematic diagrams into an integrated flowchart (a.k.a. deployment flowchart) (Tribus, 1989). This type of flowchart is used to sequence activities as well as display overall individual/group responsibilities for their accomplishment.

Once the integrated flowchart is completed, the information contained on it for the first 12 to 18 months of implementation may need to be defined in further detail in order to create the short term roadmap. The detailed information can then be transferred to a Gantt chart (Lewis, 1995) to delineate the responsible party and the timeline for each specific activity. The Gantt chart should reflect other organizational initiatives based on current long and short term strategic plans that will have an impact on the organization's ability to accomplish what is on the integrated flowchart. The short term roadmap must also address "when," "how," and "who" will continually review and update the outputs of the 16 step method so that these outputs form a "living document."

Together, the integrated flowchart, and Gantt chart form a detailed roadmap for implementation of the newly developed architecture throughout the organization. For many enterprises, these two items are inserted into their current strategic plan because they outline a "breakthrough strategy" for the entire organization.

## ***HOW TO USE THE 'NEW' ARCHITECTURE***

The newly created organizational architecture has several purposes in an organization. First, it is a useful tool in recruiting, hiring, and orienting new employees to the organization and its philosophy around never-ending transformation. Second, the outputs of the first six steps need to be woven through all training initiatives in the organization to ensure ongoing alignment of people and processes. Third, the outputs of the first six steps can be used as the foundation for daily decision making. Finally, the outputs of all of the steps can serve as a "filter" for new initiatives. This filtering process guarantees that new initiatives are customized to fit within the existing architecture. Plus, the filtering process may cause certain initiatives not to be embraced because they do not support continual transformation or the direction the organization needs to move in to create value for its current and future customers.

## ***LEADERSHIP QUALITIES NEEDED FOR ORGANIZATIONAL ARCHITECTURE WORK***

Organizational architecture is best suited for conscious transformational change. Conscious transformational change requires leaders to "proactively participate in the process [of change], crafting as much of the journey and outcome as is possible" and to "willingly choose to evolve their organizations and themselves" (Ackerman Anderson, Anderson, and Marquardt, 1997). This type of change differs from reactive transformational change where the change is forced because its leaders do not want to acknowledge its necessity. Thus, reactive transformational change "happens to the organization without its leaders having much constructive say" (Ackerman Anderson, Anderson, and Marquardt, 1997).

Those who have researched large-scale change efforts have concluded that the personal, active involvement and commitment of senior management are key to the success of the effort. In addition to critically examining their own behaviors, leaders must have a clear vision of the desired end state, provide the strategic direction for the change, empower those who are stakeholders in the change, develop a plan which integrates needed changes with other aspects of organizational functioning, and value both learning (i.e., planning) and doing at the same time (Beckhard and Pritchard, 1992; Mohrman, et. al., 1989).

Leading and facilitating an organizational architecture development team larger than 20-25 people in size requires a perspective that differs from small group dynamics. Learning how to handle the dilemma of voice (to be listened and responded to), the dilemma of structure (balancing the fear of disorganization with order and structure), the egocentric dilemma (acting as if one's own reality is the only true reality), and the contagion of affect (experiencing feelings because one feels them vicariously in others) is fundamental to the team's overall success (Bunker and Alban, 1997).

## ***IN CONCLUSION***

Organizational architecture work speaks to conscious transformational change. The purpose of large-scale transformational change is to develop increasingly agile organizations that create ongoing value for their current and future customers. This paper describes a step-by-step model for developing a framework that speaks to this purpose and ensures successful performance in an environment of accelerated technological change, heightened world-wide competition, mass customization, and reduced cycle time.

## **REFERENCES**

- Ackerman Anderson, L., D. Anderson, and M. Marquardt. "Development, Transition or Transformation: Bringing Change Leadership Into the 21st Century." OD Practitioner, Vol. 28, No. 4, 1997, pp. 5-16.
- Beckhard, R and R. Harris. Organizational Transitions. MA: Addison-Wesley, 1987.
- Beckhard, R. and W. Pritchard. Changing the Essence: The Art of Creating and Leading Fundamental Change in Organizations. CA: Jossey-Bass Inc., 1992.
- Bennis, W., and B. Nanus. Leaders: The Strategies for Taking Charge. NY: HarperCollins, 1985.
- Bunker, B. B. and B. Alban. Large Group Interventions: Engaging the Whole System for Rapid Change. CA: Jossey-Bass, Inc., Publishers, 1997.
- Dooley, J. "Cultural Aspects of Systemic Change Management." Presented at the Ohlone College Foundation Roundtable, April, 1995.
- Gitlow, H. and Process Management International. Planning for Quality, Productivity, and Competitive Position. IL: Richard D. Irwin, Inc., 1990.
- Lewis, J. Fundamentals of Project Management. NY: American Management Association, 1995.
- Likert, R. New Patterns of Management. NY: McGraw-Hill, 1961.
- Mohrman, A. M., et. al. Large-Scale Organizational Change. CA: Jossey-Bass Inc., 1989.
- Nadler, D., et. al. Discontinuous Change. CA: Jossey-Bass, Inc., Publishers, 1995.
- Nadler, D., et. al. Organizational Architecture: Designs for Changing Organizations. CA: Jossey-Bass, Inc., Publishers, 1995.
- Osada, T. The 5 S's: Five Keys to a Total Quality Environment. Japan: Asian Productivity Association, 1991.
- Pearce II, J. A. "The Company Mission Statement as a Strategic Tool." Sloan Management Review, Spring 1982, pp. 15-25.
- Schein E. Organizational Culture and Leadership. CA: Jossey-Bass, 1992.
- Silverman, S. "Vision and Mission: Strategic Planning Systems Need Both." Paper written in fulfillment of doctoral degree requirements, 1990.
- Silverman S. and R. Grover. "Forming Perceptions of Overall Product Quality in Consumer Goods: A Process of Quality Element Integration." Research in Marketing, Vol. 12, 1995, pp. 251-287.
- Takeuchi, H. Comments from presentation at the Arthur Andersen "School of the Future" Conference, April, 1997.
- Tribus, M. Deployment Flow Charting. CA: Quality and Productivity Inc., 1989.