HOW TO COMPETE AS A WORLD-CLASS UTILITY

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ABSTRACT

There are two good reasons why utilities have traditionally been called monopolies: first, because they have literally had the "monopoly" on serving their community, and second, because most have operated in a monopolistic or bureaucratic manner—non-responsive and somewhat inefficient. Deregulation is bringing an end to literal monopolies. Monopolistic behaviors are also changing, though much more slowly. The change from monopolistic thinking to business-driven begins with several major shifts in thinking. Some of these shifts include moving from specialists to flexible, cross-trained workers, from technology for "show" to technology as strategy, and moving from command and control to organization as strategy. In order to achieve the shifts in thinking, cultural change is required. Becoming business driven requires people to think differently and to shed behaviors that are associated with monopolistic thinking. Because this is a major culture change, the process of getting competitive or optimizing an organization is a process of aligning people; first, to understand the need for change, and then to agree on how it can best be done.

INTRODUCTION

There are two good reasons why utilities have traditionally been called monopolies: first, because they have literally had the "monopoly" on serving their community, and second, because most have operated in a monopolistic or bureaucratic manner—non-responsive and somewhat inefficient.

Today both these reasons are being dismantled…

- Deregulation is here, in the gas and electric utilities, and soon to be so in the water and wastewater utilities. New regulations--mandating deregulation--are bringing an end to literal monopolies.

- Monopolistic behaviors are also changing, though much more slowly. You can't "deregulate" behaviors to turn a utility into an efficient customer-driven business overnight. First, utilities have to *want* to change. And then, it takes time to change the bureaucratic organization and all the individual minds that form the organization.

The change from monopolistic thinking to a business-oriented view begins with several major shifts in thinking.

PUBLIC SECTOR RESPONDING

Figure 1 shows that any change in behavior must begin with thinking. Behavior change starts with different thinking based on philosophy and beliefs, followed by knowledge and understanding leading to new actions, and finally, proper skills and tools producing new results. The definition of insanity is often referred to as "doing things the way they've always been done and expecting different results." The public sector has realized that the thinking must change in order to get new results. Thinking like a business requires public utilities to realize that they have competition and the competition thinks about things differently. The major areas where the competition thinks differently are discussed briefly below.
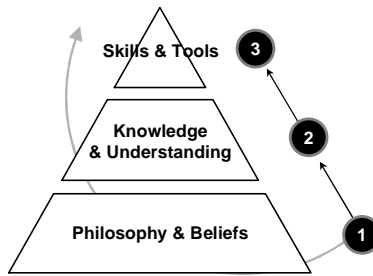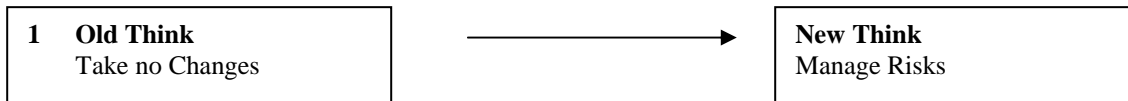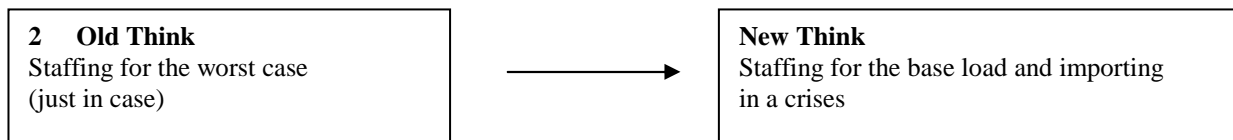
Figure 1. Working up the triangle
results in sustainable change.

MOVING TO COMPETITIVE THINKING

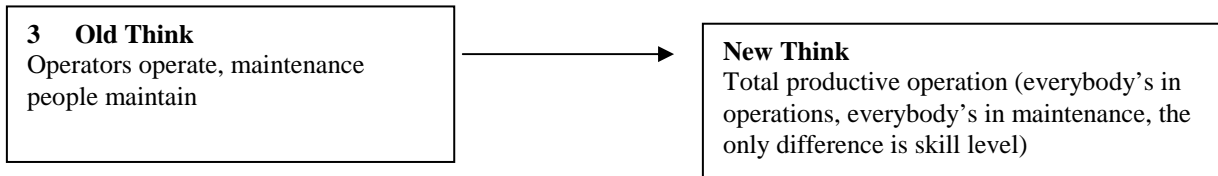| 1 **Old Think**	**New Think**
Take no Changes	Manage Risks

In "old think" public utilities are very risk-averse. Oftentimes risk is referred to, but taking chances is meant. It's important that people distinguish between taking chances and taking risks. In the "new think" managing risks effectively is the key to operating like a business. Managing risks means anticipating the adverse consequences of an action and planning ahead to eliminate or avoid those consequences. Taking chances is simply a roll of the dice and it is not good business. Being able to manage risks is right at the core of operating like a business. An example of this is minimizing off-shift staffing. Many public utilities run their facilities in the off-shift with the same staff as on the day shift. The competition systematically reduces off-shift staffing, sometimes to totally unattended operation. They do this by anticipating the consequences of something happening and having a contingency plan to handle the event. This is managing risks.

| 2 **Old Think**	**New Think**
Staffing for the worst case (just in case)	Staffing for the base load and importing in a crises

One of the most difficult challenges for the public sector is to adopt a new staffing model or new thinking about staffing. Because of the monopolistic thinking of the past, most utilities were staffed for the peak load because it was important that the peak load be handled. This meant that during the base load period, which is 80 percent of the

time, they would be overstaffed. This led to poor labor utilization and some degree of make-work. It is not uncommon in the public utility to have two or three hours per day of wrench-on-bolt time out of an eight-hour day. This is because oftentimes a utility is staffed as a monopoly and not as a business. The competition staffs for the base load and imports staff when a crisis occurs. They bring in skilled workers either on a contract or from other areas of the company. This addresses the crisis, yet keeps utilization high during the base load period.

3 Old Think Operators operate, maintenance people maintain	**New Think** Total productive operation (everybody's in operations, everybody's in maintenance, the only difference is skill level)

One of the things that evolved because of monopolistic thinking in the public sector was separation of operations and maintenance. Great barriers developed in many cases — an outright distrust. Internal competition is fostered and there is finger pointing. The private sector integrates operations and maintenance.   They cross-train operations and maintenance to the point where everybody operates and everybody maintains and the only difference is their skill sophistication or knowledge level. This fosters teamwork, not competition. A business-driven company minimizes internal competition and maximizes cooperation and collaboration.

4 Old Think Lots of specialists in skill silos	**New Think** Workforce flexibility
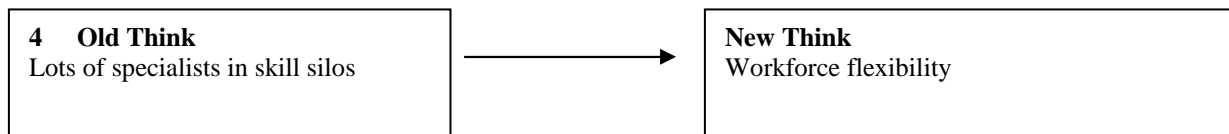
Development of specialists or skill silos evolved because of the monopoly situation in public utilities.   A mechanic would only do mechanical repair, electricians only electrical, operators would only operate, instrumentation people would only handle instrumentation, and carpenters would do only carpentry.   This led to very, very low utilization because in many cases there wasn't enough specialty work of an important nature to keep the specialists busy. So they would find themselves making work until there was the critical work for them to do. The competition cross-trains and provides certification so that people have skills and capabilities at different skill levels and can do different jobs in various areas of the operation. This reduces the amount of wait time and also increases the labor utilization of all employees.   Elimination of silos and the specialist is very important in becoming a competitive utility.   Figure 2 shows workforce flexibility thinking.
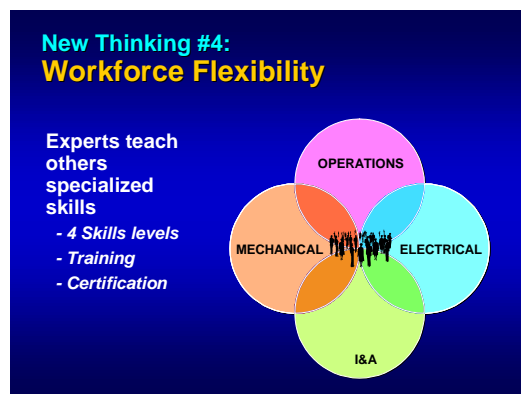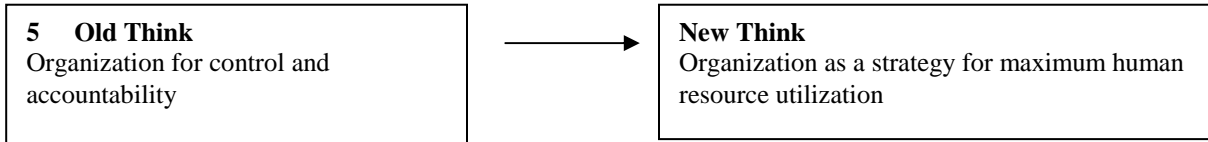

Figure 2. Cross-training and certification provide multi-skilled workers.

5 **Old Think**		**New Think**
Organization for control and accountability	→	Organization as a strategy for maximum human resource utilization

Because of the evolution of the monopolistic thinking, strict hierarchies were formed. These hierarchies oftentimes led to managers and supervisors who were perceived as "absolute" dictators and all powerful. This limited the possibility of teamwork, and individual people found it very difficult to think and act on their own because if they made a mistake there was retribution. It also led to very low supervisor/worker ratios because if you had people who weren't accustomed to acting on their own, then they needed to be told what to do.

In the competitive world, organizations are put together around teams. Substantial training is provided for team leaders and team participants on how to listen and work together. The key is listening and respecting each other and taking no unilateral action. In a team environment the team is empowered which means there doesn't have to be a supervisor telling everybody what to do. The team talks about issues and provides the necessary checks and balances so that inappropriate things don't happen. To move from a rigid hierarchy to an organization that runs in teams, there must be checks and balances. So the team takes on the role of the supervisor and provides checks and balances.

6 **Old Think**		**New Think**
If it ain't broke don't fix it	→	Fix it before it breaks
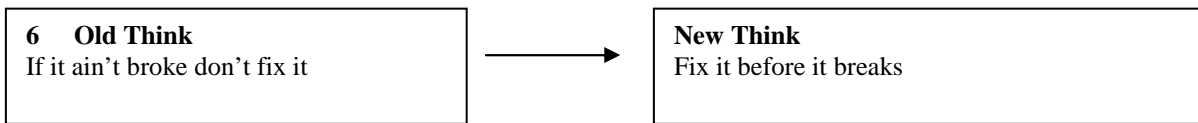
In a monopolistic organization the tendency is to wait until something breaks in order to fix it. Most people are very reactive moving from fire-to-fire because they have not systematically gained control of their work. Because they are in a reactive mode in responding to failures they don't have the right tools, they don't have the right drawings, they don't have the right people, and efficiency and effectiveness goes down. In the "new think" utility, program driven work is utilized. More than 70 percent of their work hours are planned and executed in advance of any equipment failure. Use of predictive tools to lengthen the run time and reduce the maintenance frequency is prevalent. Program driven work results in 40-50 percent improvement in productivity as shown in Figure 3. The private sector performs work in a program driven environment, which increases productivity by about 50 percent.
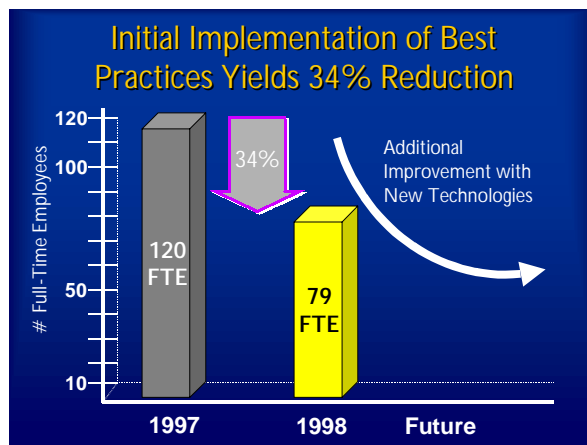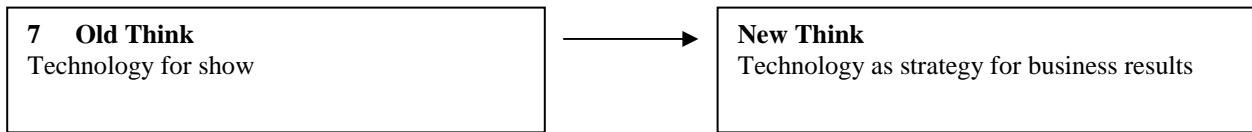

Figure 3. Program driven work results in up to 50 percent productivity improvement.

7 Old Think		New Think
Technology for show	→	Technology as strategy for business results

In a monopoly, many times technology would not be trusted by the strong managers and strong supervisors. They would want technology for illustrating the state of the art nature of the company, but it was designed in such a way that they wouldn't rely on the technology for anything vital. It was either designed to do data acquisition functions or designed with multiple layers of backup in case something failed. In a "new think" company, the competition uses technology to generate business results. The motto is "as simple as possible and not one bit simpler". Technology is designed to produce a specific amount of freed up productivity so that people can be used in other areas. The objective is to save time, save money, to avoid meaningless tasks, and therefore, free up human resources to do critical maintenance-oriented or process control-oriented functions.

GETTING STARTED WITH CULTURE CHANGE

Sustainable change requires new thinking—the philosophy and beliefs. Once the philosophy is in place, next is teaching people the knowledge and understanding necessary for them to behave differently. Finally, the last piece is skills and tools. After the knowledge and understanding is in place, the right technology can aid the people in accomplishing a task and becoming a business-driven organization. Following the order of the process is very important. Develop alignment around philosophy and beliefs, then knowledge and understanding, and then skills and tools. Bringing in technology tools first results in people not using them effectively because they have not developed new thinking. The importance of "new think" in public utilities is crucial if public utilities are to become competitive.

GETTING COMPETITIVE: GETTING ALIGNED

Getting competitive is not just a numbers game—it is not simply reducing the size of the staff by attrition. Just reducing staff, or "downsizing," is strictly a matter of cutting the fat. Truly getting competitive, on the other hand, means changing behaviors from monopolistic to business behaviors. It means changing work practices, changing what we do and how we do it. It means improving utilization of labor, energy, chemicals, and materials to improve overall productivity.

CULTURAL CHANGE REQUIRED

Basically, getting competitive requires a culture change. It requires people to begin thinking differently and to shed behaviors that are associated with monopolistic thinking. Because this is a major culture change, the process of getting competitive or optimizing an organization is a process of aligning people; first, to understand the need for change, and then to agree on how it can best be done.

As shown in Figure 4, it is like rolling a ball up a hill. In the early stages of a change program, the alignment is not very great because not many people have been involved in a significant way. But as the project moves on and more people get involved on design teams and actually learn new ways of thinking and behaving, the alignment and commitment of the organization increases and the project moves toward success.
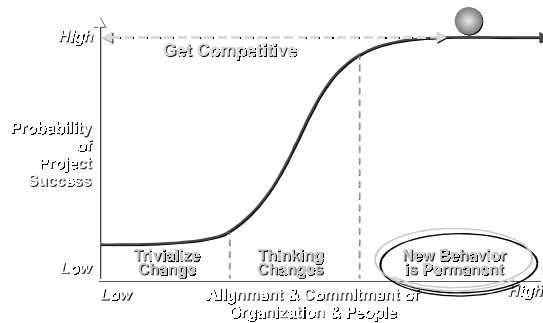
Alignment Process Yields Project Success

Figure 4

This middle stage, when the thinking starts to change, is the most dangerous because if the process of change is not completed, there is significant momentum to roll back down the hill. When people backslide, moving back to their old comfort zone behaviors, the project fails to achieve its goals. For example, effluent standards may be violated. So it is very important to understand that the process of alignment requires a systematic and sustained approach.

COMPONENTS OF SUCCESSFUL CHANGE

The question is often asked, "What is it we're trying align people around?" The answer to that question is shown in Figure 5, with the three components required for success.

The first component is that there is a definite sense of urgency throughout the organization. This means that every person in the organization is aware of the need to change, the need to improve, and can explain the reasons why the change program is being undertaken. Urgency (U) is the first aspect where alignment must occur. People will not change without a real sense of "why" change is necessary.

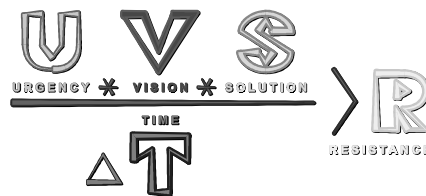## Alignment Around Key Factors Overcomes Resistance

Figure 5

The second factor is alignment around organizational vision (V), a vision of the future that is significantly different from the present in a non-linear way. This means that each individual within the organization needs to understand what the new environment will look and feel like, be able to put themselves in that environment, and see themselves working in that environment. Alignment around a new vision of a company that is business-driven, not monopolistic, is the key. The ability of each individual to be able to understand and explain the new environment and a new culture is critical to success.

The third factor is the mechanism to get from where the organization is now to where the organization needs to be in the future—the solution (S) part of the formula. Each person in the organization needs to understand the process to go from where they are to where they are going to be. They need to believe the process will work and that:

- Commitment to that process comes from the top

- Whatever changes take place within the organization will enable the change process to happen

This is often where the need for an external resource is critical, because people won't believe that an organization can change internally because of old baggage, old history, and old relationships. Therefore, the solution often must involve an outside force to provide new thinking, facilitation, and important new directions.

So, alignment of the organization around these components over time allows momentum to be built that is greater than organizational resistance (R). If the process of alignment is such that every individual in the organization understands the urgency, understands the vision, and believes that the solution (the process for change) is realistic, then organizational resistance will be overcome and cultural change will be successful.

SUMMARY

This paper addresses both the thinking shifts and cultural changes required to change from monopolistic thinking to a business driven organization. Understanding the historical industry perspective and the thinking shifts is the first hurdle. The real work comes in changing the culture. However, it can be done—and it is making a difference at many public utilities who are committed to being competitive entities.

BIOGRAPHICAL SKETCH

Alan W. Manning, P.E., is EMA's Chief Executive Officer. For the past 24 years, he has focused on leading utilities to achieve their operational, organizational, and technological goals. Alan leverages over 26 total years of experience with diverse projects for the water and wastewater industry. EMA today is a widely recognized information technology and management consulting firm specializing in helping utility organizations become more competitive.

David M. Mason has over 20 years operations, maintenance, and management experience in the water and wastewater utility industry. He is EMA's Director of Competitive Practices for the West Coast, specializing in improved work practices and applying efficient and effective technologies.