

DYNAMIC LEADERSHIP AND DECISION MAKING

Leaders in dynamic environments are facing unprecedented levels of ambiguity and uncertainty (Hodgson & White, 2003). Experience leading in a relatively static environment can be poor preparation. Because the world is working to an ever-faster clock cycle, the rules by which decisions get made and the skills needed to lead effectively have changed. In this chapter, leadership qualities from the literature and from successful practitioners will be discussed, including delegated decision making, a focus on speed and reasonableness, high levels of situational awareness, and pre-planned responses.

Balancing Stability with Flexibility

Dynamic environments can be stressful because of their unpredictability, and therefore should benefit from people who are open to experience, tolerant of stress, and who thrive on change (Smith & Dickson, 2003). Leaders in dynamic environments must be equipped to cope with chaotic change. These leaders face new challenges that require new solutions virtually every day. Dynamic project leaders must be fast and flexible problem solvers, able to mobilize resources to diagnose problems, identify options, make decisions, and implement solutions quickly. They should be adept at translating change every day into effective action, while maintaining appropriate amounts of stability and order. Leaders in these environments should shift, and adapt in a way that matches the degree of turmoil in the external environment, without compromising quality unnecessarily.

It's not all about extreme flexibility, though. Levels of stability must be established as a framework from which to hang the flexibility, like a doorframe from which a door swings. Stability and order must be combined in the right

amounts (Peterson & Mannix, 2003). For stability the leader needs to articulate a stable vision, and build shared values, and a culture that forms a guiding beacon for staff to remain committed to the organization (O'Reilly & Pfeffer, 2000). Within that stable framework the leader should promote extreme flexibility, experimentation, and discovery.

Situational Awareness

Leaders in dynamic environments need high levels of situational awareness. They need to carry the key milestones and planning assumptions in their heads and be constantly considering how changes in the environment might affect them. Companies that stay at the forefront of innovation, like 3M, use situational awareness as a way to mitigate the inability to plan in significant detail in dynamic environments (Anderson & McMillan, 2003). In the same way, as an ant colony monitors the current situation, searches for problems, and seeks opportunities, so should a project team leader maintain high levels of hands-on situational awareness to enable rapid responses. Diagnostic and interactive control mechanisms, discussed previously, are important for maintaining this situational awareness. Leaders use this awareness to identify problems, even if they are not readily apparent (Shenhar & Wideman, 2000; Shenhar, 2001b). Companies like HP, Nike, and 3M balance stability and flexibility with leaders who can:

- Maintain high levels of situational awareness.
 - Project managers continuously scan the project and external environment, to identify change, and quickly translated these into options and solutions (Teece, Pisano, & Shuen, 1997a).
- Mobilize rapid responses.
 - Project managers have rapid decision-making ability, and rapid resource redeployment ability (Dyer & Shafer, 1999).

Swift Trust

Leaders and teams in dynamic environments deal with constantly “new” teams, and need to work simultaneously with multiple teams consisting of people that any one individual barely knows (Peterson & Mannix, 2003). Therefore, leaders in dynamic environments therefore need to be able to develop rapport quickly, to establish what is known as “swift trust” (O'Connor & Adair, 2003). Leaders must have an ability to form productive

relationships quickly and to foster the establishment of intelligent relationships within the teams (Jarvenpaa & Leidner, 1999). In other words, the teams need to be able to learn their relative strengths and weaknesses, and the relative levels of experience of members. Leaders will benefit from negotiation skills that prevent conflicts from becoming personal. The leader should encourage a sociable and collegial climate with activities that enable relationship-building, and include face-to-face interactions, in order to build *swift trust*.

Case Study 9

Spaceship Development

Burt Rutan (2006) designed and built SpaceShipOne to win the US\$10 million X-Prize for a privately financed spaceflight. His advice was very similar to the IBM example:

- Work with a small group. Rutan designed, built, and tested SpaceShipOne and White Knight, with a maximum of 35 staff, but typically about 20.
- Select staff for their vision. Choose the team “for the fire in their eyes, not their grades.”
- Be averse to risk aversion. A risk-averse organization stifles innovation. “The early days of aviation were not risk averse.”
- Leverage the free market. Avoid government “support.” The aviation industry was able to take off so quickly without waiting for government support.
- Invest in the future through inspiration. Pay attention to the next generation. The greatest airplane designers were children and teens when the aviation industry first took off.
- Simplicity: Keep it simple.
- Adapt. The human ability to adapt to a changing environment is critical. If we don’t support those desires and drivers we threaten the survival of the species. Rutan argued that innovation is stifled in risk-averse environments.

Rapid Decision Making

If the project manager can accelerate the decision cycle by observing and reacting to the changing project environment quickly, the project outcomes can be optimized. Each decision made requires time to gather information, make a decision, disseminate, and then implement. Rapid decision making alone is

not sufficient, because a decision in itself means nothing if it's not accurately informed, and quickly implemented. Rapid decision making is therefore about a speedy and continuous loop that must be maintained. In fact, a U.S. Air Force strategist analyzed why in Korea the U.S. F-86 was able to defeat the better performing MIG-15. He coined a term OODA loop, which stands for Observe, Orient, Decide, Act (Boyd, 1986). Because the U.S. aircraft had a bubble cockpit, it allowed them to have better situational awareness, which in turn allowed them to observe the result of their actions and make decisions more quickly and work themselves into a better position. The same principle applies to projects in dynamic environments. The OODA loop must run at a much faster rate than the environment changes, or it will be impossible to react in time to be relevant. If quality means "fitness for use," and increasingly "out of date" products are unfit for use, then decision speed is also a critical factor for achieving product quality. The following are a number of approaches for achieving rapid decision making.

Rapid Feedback Loop

To enable informed decisions, it is important not just to collect information about the business environment in real time (Eisenhardt, 1989), but also to collect feedback on the impact on the project itself as rapidly as possible (Boyd, 1986). In order to make relevant decisions, the decision maker must know the effect of her decisions as quickly as possible in order to adjust them if required. Diagnostic controls and interactive controls, discussed in an earlier chapter, can be employed for this purpose.

Clear Authority

When there is clearly a single person responsible for given decisions, who is able to make them on his own, after appropriate consultation, decisions are able to be made faster than, say, by committee (Eisenhardt, 1989). Where a team or committee is not able to reach consensus, a leader given responsibility is able to break the impasse and make a decision based on input from the entire team. Furthermore, if that leader is able to integrate related decisions, related services, and related plans, the decision is taken up much faster than when it exists in isolation (Eisenhardt, 1989).

Devolved Responsibility

High-level managers have trouble managing rapid low-level change in dynamic environments. High-level management decisions based on tight control can be slow and ill informed. Managers are often unable to "transmit

control with any accuracy from top to bottom” (Ouchi, 1979, p. 845). Fluid business environments benefit from more distributed leadership that makes use of capable and trusted personnel at lower levels (Graetz et al., 2006). *Directive control* is a way to delegate responsibility to a lower level. The leader gives general instructions as to her “intent,” and then clearly delegates decisions to other professionals to manage the implementation. In some cases the leader may also propose a method of execution, but grant flexibility to the team to adapt that plan to an emerging reality. In other cases only the intent is transmitted, and the method of execution is decided by someone at a lower level, who will possess superior local situational awareness and specialist knowledge, allowing the response to be optimized in such a way that achieves the leader’s intent. In this way, management burden is reduced at the top and delegated to team members more knowledgeable about their own situation. Significant decisions are made much faster and in time for maximum effect. This approach does not only avert risk (from implementing a plan that does not match the changing reality) but also allows the team to capitalize on unexpected emerging opportunities. In the words of General Gordon R. Sullivan (Ulrich, 1996), “decisions must be devolved to the lowest possible level to allow front line soldiers to exploit the opportunities that develop” (p. 178).

Directive control clearly requires no small amount of trust, and in a dynamic environment this trust must often be built quickly with people you barely know (Peterson & Mannix, 2003). Trust is much more achievable when you consider there are actually many other forms of control helping you, your team, and other teams deliver on your intent. Recall from the dynamic control chapter that the team is likely to be highly experienced, knowledgeable, and very well trained (input control). The team will have stable and well-understood shared values and culture (belief systems). The team will already know what rules they must not break (boundary control). They will provide frequent updates (diagnostic control) and if they go off-track they can use interactive control for guidance. They are fully primed to deliver a mission as soon as the leader quickly decides and efficiently transmits the intent.

Devolved responsibility combined with rapid, pragmatic decision making was a common theme emanating from the research interviews. Responsibility was delegated to the lowest level possible, empowering those that have the greatest levels of expertise to use their superior specialized knowledge and awareness to make decisions best suited to the goals provided by higher levels of management. A drug developer in the pharmaceutical industry reported, “we push decision-making to the lowest practical level,

to people empowered to make vital decisions, to take advantage of fleeting opportunities.” One defense services participant reported, “we promote initiative on the ground; allow flexibility to take advantage of fleeting moments; and allow flexibility with the key higher level objective in mind, pushing decision making to the lowest possible level.” Another defense participant related, “it’s better to have that approach in place or else you will not be responsive enough to changing situations,” and, “empowering people allows rapid reaction...[and] requires trust, which comes from training and exercises.”

The military participants reported using a form of directive control where orders were reasonably detailed, but had built-in flexibility. They gave the example of how a lower-level commander might be given a mission to secure a given hill, but also provided with the “intent” of the mission, which might be to protect the left-hand side of a troop advance. The commander on the ground will adjust the mission according to circumstances to best achieve the intent. For instance, troops might engage with and remove an enemy force they encounter on the way to the hill. Occasionally, commanders may make the wrong decision and fail, but delegated control is better for adapting to a changing environment and contributes more to mission success.

Focus on Pragmatism

A basic tenet of research into dynamic environments is the notion that decision speed is more important than perfection in decision quality (Peterson & Mannix, 2003). Making decisions without full information and dealing with ambiguity is an essential attribute for upper-level managers, although quick decision makers at least try to gather more information (Eisenhardt, 1990, 1989). The key is to gather relevant information in real time and then to balance decision quality against decision speed. In his paper “‘OO-OO-OO!’ The Sound of a Broken OODA Loop,” David Ullman relates how businesses are paralyzed by rapid change rates, and become incapable of making a decision (2007). The colloquial term for this is “paralysis by analysis.” In dynamic environments, the speed of decision is a critical factor in decision quality. If decisions are not made without all the information being available, the window of opportunity can be lost. A defense forces participant paraphrased World War II General George Patton (1983) as saying, “a reasonable plan executed quickly is better than a perfect plan hatched in a prison camp.” This participant also referred to a quote commonly attributed to Prussian General Karl von Clausewitz (1873), “The greatest enemy of a good plan is the dream of a perfect plan,” to illustrate how in a dynamic environment excessive expenditure attempting a flawless/riskless plan

overlooks the much larger risk of failing to capitalize on limited windows of opportunity. Faster decision making and delegated execution were central elements of the highly successful German Blitzkrieg tactic during World War II (Frieser & Greenwood, 2005).

Developed Alternatives

In Eisenhardt's study "Making Fast Strategic Management Decisions in High-Velocity Environments" (1989), she reported how the fast teams nurtured and quickly analyzed several alternatives. Having multiple alternatives was determined to aid rapid decision making because it gave:

- Confidence in optimization: It's easy to make up your mind to go with one option when it has been compared to several others. To decide on an option is harder when there is a lingering feeling there may be better alternatives out there somewhere.
- Lowered risk through fallback options: Having plausible alternatives lowers the risk of going with the first choice, thereby giving courage to make a speedier decision. The decision maker knows that if the first choice fails he can quickly shift to another one. Having simultaneous alternatives reduces the commitment required to any one option (Staw, 1981), which makes it easier for the decision maker to quickly shift between options if one doesn't work out. Having multiple options developed also gives significant negotiation strength.

The process to develop alternatives is documented in the chapter on dynamic experimentation.

Pre-Planned Responses

Decisions can be made much more quickly if they are pre-planned. Taking the time to brainstorm alternative scenarios and the reactions to each can be built into the risk management plan. A defense participant explained how the "commander has his battle chart which says if this happens, do that." The commander has already thought about likely scenarios and made a decision in advance, based on collected intelligence. One of the start-up participants reported, "drilling is expensive...[You] need to plan for the downside, not just the upside...cater for the range of outcomes so you can respond quickly." The same technique is used in the IT industry where disaster scenarios are often well pre-planned to allow rapid response in a time of crisis. It can be

prudent, therefore, in the initial planning phase, to give priority to identifying a known good “fall back” approach, however inefficient, that can be reverted to if all else fails. Once that is done, some time can be invested on investigating and experimenting more efficient or effective approaches, always ready to revert to the known good approach as soon as circumstances require.

Case Study 10

DARPA’s Project Leaders

In an interview in 2013, Jay Schnitzer, the former head of DARPA’s Defense Sciences Office, described the qualities they look for in their program managers (Greenwald, 2013):

- Technical excellence.
- High levels of confidence, without arrogance. DARPA program managers have been likened to freewheeling zealots in pursuit of their goals. The Director attempts to recruit creative people with big ideas, and empower them.
- Can manage the big picture as well as they can manage component tasks (“dynamic range”).
- Able to work quickly.
- Strong desire to change the world.

Political Skills

While construction materials predictably obey the laws of physics, project management involves human thinking. It’s not possible to predict or fully control what people are thinking, and therefore projects demand soft skills; one soft skill that’s often overlooked is politics. In dynamic environments, a political player outside the project can block you or prevent you from delivering. Project leaders need to consider players at higher and similar levels, and functional managers that control resources, clients, and vendors. Some strategies for managing politics are to:

- Make friends—build your network, taking power players to coffee to ask them about their role and goals so when you have to interact with them on a project they will treat you with the respect of a friend rather than an anonymous cog.
- Work out what players are trying to get out of the project, and search for contra deals that can be delivered within the constraints of the project.

- To get decisions from unresponsive plays—advise a default course of action that will be taken by a certain date if direction is not provided.
- Respect your team as equal professionals and seek their counsel before making decisions. This makes the solutions more realistic, and the manager's decision easier to accept.
- Frame your proposals as solutions, not problems, and you are much more likely to get a swift, rubber stamp. Higher-level managers don't want problems without solutions.
- Remember, it's not good enough to be effective on your project; you also have to show your team is effective through regular communication and analysis.
- Remind them there are other stakeholders you have to consider also, and while you value their advice, you are responsible for the project, not to one point of view.
- Remind them that time is of the essence and your project is taking a pragmatic dynamic management approach that some people may not be used to.

Experience

Too often, failed projects are managed by those who are inexperienced. It's important to have the right people with the right skills in the right positions. The sponsor should recruit a leader who has experience building something of the same scale, or technology, or worked under a leader who did. Don't imagine that advanced technologies or new methodologies can magically overcome major project management problems with the schedule, budget, or skills of the team (Orr, 2004). The sponsor should make sure the project manager has experienced failure, and knows why the project failed. The sponsor should think carefully before donating her project as someone's disaster learning experience, and one simply does not learn enough from success. Just as IBM benefited from its most experienced employees volunteering for the PC project, experienced staff at Google are able to give up day-to-day operations to work on Google X projects.

Courage to Say No

Projects can often start with an built-in conflict between the egos of the sponsor and the project manager (Orr, 2004). Sometimes the project manager is not hired until after the bad decisions have been made: "This means

that the project manager is willing to accept the mission impossible and make it happen” (Orr, 2004b, p. 7). Many of the critical bad decisions on large, failed projects are made early on (Orr, 2004b). Project managers are effectively assigned to pre-failed projects. They hope with some bravado that if they are smart enough and work hard enough, they can overcome any obstacle.

Courage to Be Realistic

Orr claims all large failed projects have large Gantt charts, and none of them are accurate because “a Gantt chart is what you show management while you’re doing something else” (2004b, p. 13). At the start of a big project, detailed charts are religiously updated and detailed status reports are completed on time, but as the reality of a changing environment is discovered the updates become more sporadic and the charts less reflective of reality. It becomes too involved, and too embarrassing, to update the schedules to reflect reality. Project managers and their bosses can go to great lengths to avoid telling top management the actual situation. Most very large projects (VLPs) are not canceled; they simply slip away, avoiding the admission of failure and the wasting of millions of dollars and years of time. Better to start with more realistic goals enabled by streamlined and flexible plans and reporting. By all means set the team up to beat the schedule, but don’t doom a project with impossible goals. Leaders must be ready to trade off to achieve the fundamental objectives (Turner & Müller, 2005, p. 57).

Examples of Decision Making

Across all of the focus groups there was agreement that that there was a need to balance decision quality against decision speed. This represented an additional finding to results of the earlier study, the in-depth interviews. The decision-making theme was clarified by the focus groups as requiring timely decisions, based on rapidly collected and sometimes incomplete data. One focus group participant illustrated this point with the following narrative:

Know when you have “good enough.” I worked with a guy who was a very good scientist, and he wanted to know down to about the fifth decimal place what the capacity of a particular unit needed to be. What’s going to be the optimum number. In the end we missed the deadline and in hindsight we realized

the bottom line was there were only three choices...it was a blower, we can get small, medium, large. You know small is too small, large is too big, medium works...and that's all we needed to know. We didn't need to know that its 1827...all we needed to know is it's more than 1000 and less than 5000.

Another focus group concluded as follows:

You have to be comfortable making a decision when you have to, not when you have all the information you would like to have to make it. You have to be able to make decisions with less information than you are comfortable with, or than you would prefer to have. (FG)

The proposal to use a flat project team structure, linking the hands-on staff directly with the final decision makers, was reinforced with comments like “tall hierarchy’s are a big problem...hoarding decisions at the top,” and, “you need key decision-makers to devolve responsibility.” The last focus group summarized the decision-making approach for projects in dynamic environments as follows:

Explain the time factor. Explain how you COULD analyze for a year and come up with a 4% or maybe 20% better decision BUT actually that would be 100% worse outcome because we will miss the opportunity. That will be another year without the project outcome. (FG)

Focus group participants discussed this point and concluded that in “rapidly changing projects, those (project managers) that have hard times making decisions don’t survive very well.”

The approach of delegating control and decision making to lower-level experts so they could respond more quickly, emerging from the interviews, was also supported in the focus groups. An example was provided in one focus group with the comment, “we push out responsibility to the lowest level,” and illustrated the approach with an ant-colony analogy:

I just let, as I called it, the “ant colony” take care of it. Their ant colony got destroyed and they did a marvelous job of putting it back together. So I took a hands-off approach and I didn’t need to put my hands into the ant colony. (FG)

An example of why delegated control was considered important was given as follows:

I'm working on a project right now with waste energy conversion using [removed]. We have a problem where we have to take 20KW of power away from a very small space and I threw out to the team: "Here's the goal. We have a constrained space. We have unconstrained power to work with and we have a huge energy load that has to be dissipated. How should we make that happen?" The goal motivation was we've got a contract to do this. If we can't make this part happen the entire multimillion dollar project goes away and that's what we started with, and if I'd had said, "We need to build a heat exchanger," we would never come up with a process that said we can use the waste load to dissipate 80% of that heat that we are trying to remove, and make the entire system more efficient. (FG)

The point in the above example is that by completely delegating the decision, by setting the objective and allowing the experts to work out options, the outcome was optimized.

Based on the results of the focus groups, the refined decision-making approach is as follows: (a) directive control delegating decision making to the lowest possible level by communicating intent, (b) constantly updated high levels of awareness of the limited decision window, (c) rapid and pragmatic reporting to inform rapid and pragmatic decision making, (d) constantly updated pre-planning of decision responses to allow rapid reactions, and (e) leaders who have the ability to make decisions in time as a priority over decision quality.

Examples of Leadership Style

A commonly advocated leadership quality was a collaborative approach with a willingness to delegate authority to achieve the project vision. For example, participants noted the following:

The level of technical complexity in each area is so great that no one individual can really be across all the detail, so the task of managers is perhaps more one of integration and coordination. It is a case of having someone who can see the forest for the trees as it were. (Pharmacy Industry)

Although I have a long history as a software developer, some paradigms have changed significantly. This means that I must rely on the skills and knowledge of team members rather than take an expert role. (IT Industry)

Our leadership style is to avoid micro-management in favor of development of subordinates. Encouraging people to think for themselves but providing direction. Speed of decision is more important in a rapidly changing environment than a perfect one. If you wait for all the information your window of opportunity is past. Sometimes commanders make the wrong decision and fail, but it's better to have that approach in place else you will not be responsive enough to changing situations. (Defense Industry)

A manager who specialized in building large international data-centers reported:

In large teams, or areas where diverse knowledge is required... there is no way the project manager can be a technical specialist in all areas...mechanical and electrical, architecture, and so forth. The real skill is forming all of the different groups into a cohesive team. (IT Industry)

DefSvc1 reported how “empowering people, allows rapid reaction.” Pharm2 claimed to “push decision making to the lowest practical level [so that] people are empowered to make vital decisions, to take advantage of fleeting opportunities.”

These results are compatible with Shenhar and Wideman's (2000) description of an “explorer” style of leadership—suited to concept and development phases of what they call high-tech or super-high-tech projects. These projects might involve new or emerging technologies with unknowns at commencement. Qualities of the explorer style include: vision-orientated, solution-seeker, inspiring, determined, focus long-range, evoked dedication, leads by example, takes major decisions (Shenhar & Wideman, 2000). So these leaders empower the team to explore, and make many of the lower level decisions in a collaborative way. In fact, according to Deaux, Dane, and Wrightman (1993), “highly authoritarian people are often uncomfortable in ambiguous situations” (p. 347).

The culture section of this chapter describes how the leaders of both Intel and Google succeed in using a collaborative approach. Although in a static environment it may be possible for a leader to know everything the

staff knows, and therefore supervise and guide them more accurately, in a dynamic environment, the leader may have to take a more collaborate approach, and delegate to specialists who are better equipped to keep pace in their own areas.

Finding a leader with high-level subject matter expertise and a clear vision was a supported approach in the focus groups. Pharm2 reported, “on the science side, the leaders were the leaders in the field,” and Const1 reported that the “project director was an old man that had been working his whole life in this industry.” As supported by Cioffi (2006), subject matter expertise appeared to be an attractive quality for project managers in dynamic environments. This strategy did, however, come with challenges. Start-up1 reported:

We are employing a chief technology officer with some experience in our area of technology but we are restricted in that what we are doing is unique in the world and there simply is no one else doing it that we can recruit. (Start-up)

The preferred approach appears akin to the film director analogy where the leader has high-level subject matter expertise and leads towards a clear vision, collaboration, and delegation with specialists. By contrast, to use Shenhar and Wideman (2000), projects using established (static) technologies may benefit from leaders who are driver-administrators, with a focus on high levels of structure and stability.

The delegated-control approach with rapid decision making and a collaborative flexible style identified in the in-depth interview study were reinforced in each of the focus groups. The hands-on subject matter expertise qualities identified in the in-depth interviews were refined and clarified in the focus groups and the feedback on the analysis of the focus groups.

Various comments from participants across groups reinforced the need for collaborative flexible qualities, including “the project managers in many of our areas are team members, not dictatorial...they sit in the team not above the team.” Participants typically described their management as needing to be “flexible and adaptive,” and, “you need to think on your feet,” and, “you have to adapt to situations,” and, “you need to adjust your leadership style for the team to some extent...set more parameters at the start and then let them loose,” and, “I try to adapt my leadership style to the team, whatever works. Adaptability is critical, horses for courses. I intuitively adapt to the team. Ultimately people just want to enjoy their work, so make it fun!”

The results of the focus group study confirmed the findings of the in-depth interviews that managers require a hands-on subject matter expert in the

leadership team. However, focus group discussions also refined the concept. Focus groups two and three argued the necessary leadership skills to achieve project success were broader and included: (a) a generalist project manager, (b) a problem expert, and (c) a solution expert. One of those roles may be the subject matter expert identified in the in-depth interviews. Participants in the focus groups argued that if all these qualities were not available in a single person, which was often likely to be the case, then the skills must be found in other people and the leadership shared. The shared leadership approach was considered necessary because acquiring all of the required skills within a single person was much less likely in a dynamic environment. One participant disagreed with this approach on the basis that leadership is not a role. In the verification stage of the analysis process, confirmation of this approach was received from all three focus groups, with example submissions as follows:

In my experience if the project is led by a subject matter expert time and cost go out the window. It's important that it's not lead by the subject matter expert. (FG)

I say subject matter expertise is bad and a hindrance. We prefer they [the project manager] are not subject matter experts. Involving the stakeholder in the team helps them manage the rapid change. This can be called stakeholder leadership. (FG).

The best combination is a generalist PM and a subject matter expert. (FG)

I will never manage a project without a check and balance co-leader, and a technical expert. It takes three to do it right. Understand the problem expert/solution expert, but we kind of rotate that duty depending on individual strengths. (FG)

In summary, the collaborative egalitarian flexible leadership styles identified in the in-depth interview study were reinforced in each of the focus groups. The need for a hands-on, subject matter expertise was refined to recommend bringing together three key skills for: (a) organizing (i.e., project manager leader), (b) understanding the problem (i.e., stakeholder leader), and (c) understanding the solution (i.e., solution leader). Other new or carried forward elements included: (a) leadership that empowers team members to build ownership, (b) devolved responsibility, pushing accountability down to the lowest level, and (c) a level of paranoia that asks at every opportunity "What are we missing?"

Summary

In dynamic environments, leaders need to be adaptable and flexible and deal with ambiguity. They should be able to trade off interim goals to achieve business objectives using high levels of situational awareness and a clear vision. The leader can enable rapid decision making by delegating decisions, and having ready developed alternatives.