With a typical development project, everyone understands how much is riding on its success. A focused discussion of risks that could impede the project may strike many as unduly pessimistic. But understanding and dealing with these risks forthrightly is the key to the very success we seek. What can be done to be more open to the risks a project faces?

Management can be so caught up in the success of a project that when you tell them about the possible problems your project faces, they somehow don’t hear you. They may be more interested later, when the potential problems have become actual ones. By then, of course, it is often too late.

Even if management is receptive, you may have other reasons for not addressing risk. You are basically in competition with other projects for resources. In order to get the resources you need to complete your project—and thus keep your job—you cannot afford to admit any potential problems. Like a wounded animal in the jungle, if you show your weakness, you are as good as dead.

Of course, potential problems are simply risks that the project faces. Project risk management is a major opportunity for improvement in how we develop products, in part because so many companies do it so poorly. You can find many conferences, articles, and books on project risk management. They will show you, step by step, how to manage the risk in your project. What they seldom mention is how to cope with the underlying values in your organization that can make even the mention of risk a threat to your career.

There are several things you can do to help your management become more interested in addressing risks early in a project. I will outline these in a moment. First, though, think about the benefits of preparing for risks. You can keep some risks from becoming problems, and diminish the consequences of problems that do arise, by preparing for them in advance. In general, if you start early, you have a richer palette of solutions open to you. Moreover, they will tend to be much cheaper solutions than will be available later. The situation for mitigating risks is similar to the one often cited for making engineering changes at progressive stages of development: the later the disruption occurs, the more painful it is (see Figure 1).

To gain the most from managing your project’s risks well, think broadly about the business ramifications of your project, not narrowly about the design of the product. In regulated industries, such as medical devices, regulatory authorities may encourage you to focus narrowly on the safety and reliability of your design. For example, you may need to follow FDA’s guidelines on human factors, *Medical Device Use-Safety: Incorporating Human Factors Engineering into Risk Management*. Addressing such use-related hazards is fine, and is certainly beneficial to public safety. But by itself, this will not make for a profitable project.

What, then, can you do to open up the discussion about other types of project risks? First, you must advance the risks you perceive beyond conjecture and base them on facts that you can support and discuss. Management will be willing to discuss facts with you, but when you get into opinions, you are likely to lose. One way to do this is to use a *risk model*, a template that illuminates the facts supporting the risk. This model breaks the risk down into two pieces, a risk event and its impact. For instance, one project risk might be that you cannot distribute enough of the consumables for your clinical trials, which means that your trials schedule will stretch out. Thus, you have the model’s two pieces:

- A risk event: the inability to distribute enough consumables for clinical trials.
- Its impact: delay in the completion of trials.
Figure 1. Cost of change as a function of product development phase.

As they stand, these two items are debatable. So, focusing on the risk event, what leads you to believe that distribution might be too thin? You may know that:

- Clinical trials are slated to occur on three continents.
- There are no data on the breakdown of the 14 types of consumable that will be needed by the patient population.
- Five of the past seven projects have had difficulties getting the right consumable to the doctor on time.

These three facts are risk-event drivers (there is a similar list of impact drivers) that lend themselves to rational discussion. If someone disputes the first driver, for instance, you can discuss the details of where you plan to locate the clinical trials. If that is not enough, you can collect additional information. Once you have your drivers, not only can you discuss the risk rationally, you can also show management that you are in control of the situation. In this case, perhaps, your action plan will be to ensure that all clinical sites are located within two hours by car from an airfreight hub.

Drivers are your basic tool and language for putting risks on the table for discussion and resolution. Unfortunately, in many companies, drivers alone will not help, because even a mere discussion of unpleasant facts is unwelcome. The reasons for such resistance vary from one company to the next. Let’s look at a few and see what you can do to deal with them.

One is the well-known firefighting mentality. Some people simply prefer to wait until a situation is almost hopeless rather than work to prevent it. Firefighting exists because it is exciting, and this is a key to overcoming it. Do not fan the flames, so to speak, by encouraging or rewarding the firefighter. Instead, look for and encourage those who are working quietly in the background to keep risks from happening. If the firefighters are higher up in management, this approach will not work. Instead, collect some data from problems in past projects to show that past fires could have been dealt with far more effectively through prevention. Discuss your findings at your level and attempt to work them up into a management discussion.

This firefighting syndrome, like the related phenomena discussed below, is a cultural impediment. You have very limited power to change such a culture quickly. In fact, even top management has limited power to make such changes. So, what do you do? I am suggesting that you can work within these impediments by understanding them. In the case of firefighting, know who the firefighters are and how they operate. Anticipate what they might do and how to defuse it.

Another source of resistance, increasingly common in an era of stretched budgets, is a reluctance to devote resources to potential problems. Managers may tell you that they have enough actual problems to deal with, so why invest in ones that might not happen? The answer to this one is in Figure 1. If you do not deal with problems early or preemptively, while they are easy to resolve, you will have to spend much more later, when the simple fixes are no longer available. Yes, by putting it off, you save on the problems that do not occur, but you spend much more on those that do.

You can overcome this reluctance to invest in potential problems by examining some completed projects. See what it costs to fix problems, and then see how much cheaper they would have been to resolve if addressed early on. Present your findings for a few of these instances to make your case. Again, aim to move your findings up to a management discussion, since this is where the values will need to change. Management will always be interested in how they can complete a project more economically, so show them how addressing potential problems will save money overall.

Some people do not like to talk about risks because it seems negative. This is a very easy trap to fall into. The reality is that risk has two faces, and the often-forgotten face is opportunity. Especially in product innovation, behind each risk is an opportunity to do something better, faster, or cheaper than before. By listing the drivers and analyzing the risk, you are really asking whether you wish to get involved in managing this risk or whether you would rather just let it take its course. That is, you are putting yourself in control by deciding which
of these risk/opportunity situations to participate in and which to let pass. For the ones in which you decide to participate, you can then discuss them as the basis of an opportunity for a better project outcome rather than as a pitfall to be avoided.

One other trap that awaits you—especially in highly technical medical device development projects—is to assume that project risks are all technical. Surprisingly, few of the risks that can derail a highly technical development project are technical. If you involve only engineers and scientists, you will overlook many project risks and their solutions. For instance, during one communications systems development project, staff engineers proposed the adoption of a new operating system. The engineers said that the new system would be much faster. Questioning this, some nontechnical people interviewed customers about it. The customers told them that even if the operating system were much faster, they would not choose to install it, due to their heavy investment in the current operating system. Based on this finding, the new operating system was eliminated from the design. With its elimination, many project risks also disappeared.

To open up an effective dialogue about risk in your project, you will have to operate at two levels. First, you must establish the drivers supporting or refuting each risk and base your discussion on them. Second, you must constantly monitor the aspects of your organizational culture that frustrate your attempts to discuss these facts. At the same time, you must find ways to eliminate these impediments—at your level or higher—so that you can discuss your risk drivers.

Project risk, despite the many frustrations in discussing it, is an exceptionally productive focus for guiding a project to success. Be assured that any effort you put into improving the dialogue about risk will be repaid generously.

Reference