Executive summary – Innovators face many obstacles, but five are particularly common: inadequate funding, risk avoidance, “siloing,” time commitments and incorrect measures. A deeper understanding of these obstacles, along with an active approach of planning, partnering and persistence, can help to keep a great innovation alive and ensure its full value is realized.

This Executive Technology Report is based on a personal essay by Peter Andrews, Consulting Faculty Member at the IBM Executive Business Institute in Palisades, New York.

Whether you are trying to lead your industry, create a new market or just do things more efficiently, innovation is difficult and liable to fail. Success begins with a careful understanding of what you are trying to achieve, the potential for resistance and planning, but there are five organizational barriers that repeatedly show up: inadequate funding, risk avoidance, “siloing,” time commitments and incorrect measures.

While each of these barriers can be formidable, they don’t need to stop your innovation. Successful innovators use a number of techniques to work their ways around these barriers or break right through them.

Inadequate funding
Getting the start-up funds for an innovation often means taking money away from an established program. Getting the money at just the right time is also problematic since organizations often work on annual funding cycles that don’t match up well with real-world opportunities. And many an excellent innovation needs more than seed money to survive and is starved out of existence. But broader thinking on needs and resources can help innovators move their ideas along.
Questions to ask

- How far can we get without money? Do we need money?
- What sources of money are there?
- When do we need money?
- How much money do we need?
- Do we have any natural partners? Who benefits and how?

Possible answers

- Use the resources of informal networks to get things started. Call in favors.
- Break up the plan and simplify it to create shorter term successes.
- Do a creative inventory of available funding sources.
- Don’t build everything from scratch – leverage other work or take advantage of “good enough” substitutes.
- Assess the full potential so that those who might realize value can be enlisted as allies. Then sell the potential allies on the idea.

Risk avoidance

Most of us won’t run toward risks. We want to maintain our health, wealth and peace of mind. But no progress is made without calculated risk taking. Since people know that innovation is risky, many people run away from it. In fact, some organizations habitually play the game of finding things that could go wrong. Many of the classic responses (“We’ve never done this before”; “This failed when we tried it before”) come up almost as a reflex. Once risks are identified, innovation is often stopped. But a clear-eyed view of risks balanced against benefits can create an environment where innovation is nurtured rather than killed.

Questions to ask

- Do we use standard methods for measuring risks and benefits?
- Do we use the appropriate risk assessment measures for innovations?
- Do we measure the risks of not innovating?
- Do we measure the benefits?
Possible answers
- Learn about and promote effective risk assessment methods.
- Put the risk of innovation on the right person/organization.
- Find and develop supporters.
- Anticipate objections and provide both logical replies and stories that create contexts for ideas.
- Test small on a small scale and create prototypes.
- Dramatize benefits.
- Encourage a portfolio approach, using options.
- Give people reasons to feel safe.
- Show you take seriously the safety of sponsors, participants and other stakeholders by acknowledging and mitigating their risks.

“Siloing”
Organizations seek to protect create their identities, get proper credit, sustain themselves and protect themselves. That’s why they create boundaries, assign responsibilities and put rules in place. No matter how artificial the divisions and processes are, they are usually defended – even when ignoring them is to everyone’s advantage.

By nature, innovations tend to cross boundaries and create new categories. It’s not unusual to see competing claims of ownership and disputes about authority. Deals break down over who will run things and how imagined profits will be divided. As a result, innovations that might benefit the whole enterprise are killed by organizations that don’t benefit themselves, don’t see their benefits or don’t get a “fair share” of benefits. But a better understanding of the needs and concerns of organizations can be a starting point for managing the natural organizational conflicts innovation creates.

Questions to ask
- Do all stakeholders benefit?
- Do all stakeholders understand how they will benefit?
- What are the mission statements of affected organizations? What are their rules?
- Who are the decision makers?
- How have innovations been handled in the past?
Possible answers

- Include all major stakeholders in the creation of the innovation and help ensure they are fairly rewarded.
- Create clear value propositions for all stakeholders.
- Actively manage stakeholders, keeping them aligned and informed.
- Get a deep understanding of the real concerns and interests of different organizations and the boundaries within which they must work to succeed.
- Work to know the people involved as people, not just roles.
- Understand which choices would give others a “veto” on your idea and work to avoid those choices.
- Innovation often creates winners as well as losers – it may be necessary not to engage with some stakeholders, to “fly under the radar.”

Time commitments

Time is a scarce and precious commodity. One of management’s jobs is to verify that minutes are productively filled. And while enlightened management will invest some of workers’ on-the-job time in education, experimentation, relationships, personal growth and health, it’s difficult to prove that such investments pay off. Even worse, such investments may not pay off in a timely way (for example, quick enough for returns to be apparent through a quarterly measurement) for a sponsoring organization. But increasing the value, benefits and urgency of an innovation will tend to free up time for work on it.

Questions to ask

- Is the innovation worth the time of the people involved?
- What are the competing claims on time?
- What is the minimum amount of time each participant must dedicate to help ensure success?
- What are the real world timings (such as releases of competitive products) that require milestone achievements?
- Where is there flexibility in the calendar and schedule?
Possible answers

- Do triage on assignment lists.
- Let others do more of the work.
- Make personal commitments to others in your social network.
- Reallocate benefits so the innovation can compete better for the time of key participants.
- Create small successes that encourage participants to free up more time.

Incorrect measures

For many organizations, revenue, profits and market share are the only measures used. These are easier to quantify than intangibles such as reputation, knowledge, attractiveness to talent, leadership and other assets that make major contributions to the true value of an enterprise.

Most innovations that matter are difficult to explain in terms of return on investment (ROI). Even those innovations that have the potential to disrupt or create new markets may suffer by comparison when put up against more pedestrian projects as they grind through a standard budgeting process. But by expanding the view of measures and including decision makers in the process of creating new measures, it’s often possible to avoid the ROI trap.

Questions to ask

- How do we measure success?
- Can we expand our measures of success?
- Should we have different measures for different investments?
- Are our investments balanced to sustain the present and create the future?
- What measurements are leading enterprises using?
Possible answers

- Organizations can inventory possible measures, their characteristics and their value.
- Measures that are compelling to all stakeholders can be developed in joint workshops.
- Enterprises that take a portfolio approach can establish different measures for different kinds of investments.

This isn’t the full set of barriers innovations can face. Lack of leadership, infrastructure limits, property rights and many others can get in the way of your great ideas. And the answers above are neither universal nor complete. The creativity of your team, your network and your friends may have answers that are different and more appropriate to your needs.

In fact, the most effective way to overcome barriers is to get into a discussion with a group of colleagues and find out how they’ve been able to work through problems. Their solutions will be complete and specific. And the answers they have will be associated with themselves, a future resource for further guidance when an answer just isn’t working for a new opportunity.

There’s an added benefit to starting these discussions. The most valuable asset for any innovator is his or her network. Advice, complaints, mentoring and “war stories” can all become a basis for strengthening social bonds and building relationships. Working together to solve common problems is an effective way to establish or revitalize these essential networks. Effectively, working on barriers with your network does more than solve problems. It creates new opportunities and can help you to fully realize the potential of your idea.

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**About this publication**

*Executive Technology Report* is a monthly publication intended as a heads-up on emerging technologies and business ideas. All the technological initiatives covered in *Executive Technology Report* have been extensively analyzed using a proprietary IBM methodology. This involves not only rating the technologies based on their functions and maturity, but also doing quantitative analysis of the social, user and business factors that are just as important to its ultimate adoption. From these data, the timing and importance of emerging technologies are determined. Barriers to adoption and hidden value are often revealed, and what is learned is viewed within the context of five technical themes that are driving change:

**Knowledge Management:** Capturing a company’s collective expertise wherever it resides – databases, on paper, in people's minds – and distributing it to where it can yield big payoffs

**Pervasive Computing:** Combining communications technologies and an array of computing devices (including PDAs, laptops, pagers and servers) to allow users continual access to the data, communications and information services

**Realtime:** "A sense of ultracompressed time and foreshortened horizons, [a result of technology] compressing to zero the time it takes to get and use information, to learn, to make decisions, to initiate action, to deploy resources, to innovate" (Regis McKenna, *Real Time*, Harvard Business School Publishing, 1997.)
Ease-of-Use: Using user-centric design to make the experience with IT intuitive, less painful and possibly fun.

Deep Computing: Using unprecedented processing power, advanced software and sophisticated algorithms to solve problems and derive knowledge from vast amounts of data.

This analysis is used to form the explanations, projections and discussions in each Executive Technology Report issue so that you not only find out what technologies are emerging, but how and why they'll make a difference to your business. If you would like to explore how IBM can help you take advantage of these new concepts and ideas, please contact us at insights@us.ibm.com. To browse through other resources for business executives, please visit ibm.com/services.

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