

Six Steps to Successful Outcomes

Even When the Project Has Never Been Done Before



Tasked with developing strategy for, designing and managing first-time projects, MRIGlobal Section Manager Jason Gordon offers six replicable steps that give projects the right start.

Depending on the projects he is overseeing, MRIGlobal Section Manager Jason Gordon might be working with powerful chemicals and biological compounds, integrating data into software systems, or using common construction materials to build test infrastructure – all on the same day.

Gordon's work life is never "wash, rinse, repeat." No two days – in fact, no two projects – are ever exactly alike.

Yet, Gordon is tasked with developing strategy for, designing and managing research projects on behalf of MRIGlobal government clients. The work is critical, because it involves leveraging technology developed in numerous industries to provide a protective package that better ensures military personnel health. His work includes making sure each project has relevant skillset staffing and the right resources available to carry out the required research.



Six Steps for Achieving Desired Project Outcomes

While every project requires fresh thinking and, often, materials or technology his teams haven't been called on to use previously, Gordon taps lessons learned from past projects to inform new assignments. His process for pinpointing the direction and action steps for each new project applies to leaders responsible for meeting customer objectives in virtually every industry.

Gordon offers six insights that set the course for project startups that will reliably achieve desired client outcomes, even when a project of that nature has never been done before:

1. Start with the end in mind.

Convene client and any other stakeholder representatives at the table for a kickoff meeting as early as possible. (In MRIGlobal's case, stakeholders might be a larger community of individuals who would use a product being tested or organizations responsible for deciding how that product will be used in the future.) Stakeholders should have input into defining the problem that needs solving; the client's voice ultimately defines the objectives that shape project direction. Reaching complete understanding of these representatives' needs and goals is critical to designing the project so it ultimately meets the agreed-upon objectives.

2. Get the scope and budget right.

Scope and budget often are fairly fluid at the project proposal and very early startup stages. Nailing down the specifics as early as possible benefits both the client and the project team. At a kickoff meeting soon after the project has been awarded, revisit the scope with the client, discussing initial expectations about how dollars will be allocated to various aspects of the project and how they will be tracked according to the expected progress rate.



In certain situations, it may be appropriate to institute an earned value system to illustrate project progress against the budget expenditure rate.

3. Establish wide-open communication pathways.

For a project to be successful, every participant must be comfortable with how it is moving forward. Create an uncluttered communication model that enhances efficiency. Clients and stakeholders should receive timely updates. The internal team should have freedom to bring up concerns, pose questions and express thoughts and ideas. Each person involved should have a clear channel of communication to any other person at any level who can give them answers or resources they need to go forward.

4. Break down the project components to build out the schedule.

MRIGlobal research projects can run from three months to 10 years, with most lasting one to three years. Missing a mark or moving down the wrong road at various points could mean an entire project ends up off course.

The schedule for any large project must take into consideration staffing, materials and technology – and their potential for up-and-down scalability as research proceeds – and must include intentional checkpoints that allow assessments to be made every two to three weeks.

Subdivide large, longer-term projects into manageable categories that are individually designed with their relevant processes, staffing needs, reviews, feedback opportunities and timetables. Develop documents that explain how each category builds back up into the whole, who has responsibility for each piece and – working backward from deadlines – when deliverables in each category must be completed.

5. Determine what resources are needed and where to get them.

Once the project is broken down into categories, identify what skillsets, materials and technologies will be required to accomplish each element. In some cases, those assets may not be available in-house. If that's the case, attaining the most relevant people skills or products needed will call for both strategic and innovative thinking – and may require looking in nontraditional places.

In one recent project, MRIGlobal's assignment involved building a very large chamber that required an automated decontamination system. By researching options that would fulfill the need, we discovered a process the pharmaceutical industry commonly uses to demonstrate that a large-batch reactor has been effectively cleaned. The process involves applying a specific fluorescent dye to the reactor's walls. No fluorescence remaining after decontamination shows that the walls have been effectively cleaned. To prove out our system, MRIGlobal borrowed that process and demonstrated that the automated decontamination system effectively cleaned the test chamber's walls.

Fitting the capabilities of the people who will perform the work to the technical requirements of the project is essential to a successful outcome. Individuals with aerosol engineering backgrounds are necessary for testing methods to measure chemicals released into the air, for example, just as team members with physiology backgrounds are to projects that involve research into wearable sensors. Because we start from scratch with every project, MRIGlobal's internal staff is adaptable. Rather than being made up of specialists, the research team is comprised of individuals who bring relevant expertise, but who also like to apply their skills creatively in their approaches to new projects.



Nevertheless, like many companies, we sometimes need to overlap in-house skills with specialized, third-party expertise. For one recent project, MRIGlobal was charged with building a humanoid robot, a requirement we met by involving a subcontracted partner who added its expertise to ours. Don't be afraid to partner with others who can augment internal skillsets or technological capabilities if that's the most effective approach to meeting the client's project goals.

6. Identify and figure out how to mitigate risks.

Unchecked risks can quickly add costs and derail a project, sometimes permanently. Potential risks reside in the schedule, in human resources requirements, in the unknowns and in technology demands. They are especially perilous when the project scope shifts or priorities change because the overall objectives were not fully defined at the beginning.

It's never too early to start identifying potential risks, documenting their possible impacts and brainstorming avoidance or mitigation strategies. It should be part of the process from the moment the general project parameters are known. If, for example, a project requires a technology unfamiliar to the team, there is a risk in simply choosing a technology that seems to meet the criteria. If it fails to perform as expected, there's no backup. Instead, by identifying that potential risk and evaluating multiple candidate technologies before the project launches, the team can have more confidence in the selected technology – and have an alternative at the ready if the original choice doesn't fulfill expectations.

MRIGlobal often is called upon to design and build test infrastructure that is critical in new protective technology development. One such program involved designing and building a test chamber that would require personnel setting up tests or cleaning up after tests in the chamber to wear cumbersome protective gear that would limit their movements and visibility. Early in the program, we identified this risk as significant to the chamber's design. We mitigated the risk by implementing a structured and integrated design process that relied first on 3-D visualizations for client test personnel to provide input to our engineers and scientists regarding what would make the job easiest to accomplish. Based on that initial information, we built a to-scale model of the chamber, and test personnel evaluated it to further determine how the human factor needed to influence the design.

Use past experience and parallels to other programs to predict where risks may arise. On major programs, MRIGlobal reviews potential risks with clients as part of the initial development, asking them to comment and add to those we already have identified.

Risk identification matures after the project is underway. Watch for unanticipated risks that may arise, and course correct as needed to keep the project on track.

Using these six steps at the front end of a project requires dedicating time and strategic thought to the planning process. That discipline will be worth it when it pays off in project outcomes that successfully meet the client's goals.

Learn More from MRIGlobal Scientists

Visit www.mriglobal.org/download-spotlight/ to download them all

About MRIGlobal

Celebrating its 75th year of business, MRIGlobal addresses some of the world's greatest threats and challenges. Founded in 1944 as an independent, non-profit organization, we perform contract research for government, industry, and academia. Our customized solutions in national security and defense and health include research and development capabilities in clinical research support, infectious disease and biological threat agent detection, global biological engagement, *in vitro* diagnostics, and laboratory management and operations.