Government Funding of Small Companies: The Good, The Bad, and the Ugly R.J. Pressley

No matter how great your idea is, there never seems to be enough money for the growth that you are sure would be good for your materials company. U.S. government contract support seems on the surface to be "found money." Is it? Would you be compromised forever if you accepted some? Does it depend upon your political persuasion? What are the rules? This brief article covers a few of the things I have learned over the years that might help in the decision of whether to seek and accept government funding to help support research.

Politicians continue to debate the value to the country of government funding of industrial research and development. They ask, "Why?" "How much?" "What district? Have they contributed to my party?" "Tax credits or grants?" With this type of political uncertainty, what happens to a small company that tries for funds and how will the effort affect the company? I refer to a relatively small and young commercial company that decides it is going to try for government funding for research support, not a military company existing solely on government funding. The effects on the company fall into three categories.

The Good

The Proposal. This forces the company to organize its plans and justify why the government should participate. It requires costing and work force loading and possibly "deliverables." This planning is good if the proposed effort is in the corporate direction.

The Award. This is valuable in the process of raising venture capital. It is viewed as a positive evaluation of the technology. VC's often say that they do their own evaluation and the government does not matter, but it really does influence them.

The Money. This is a delayed good. The company has to perform and document a service, either labor and material or some measurable deliverable or milestone. Expenses come before repayments and may result in a cash crunch.

The Contacts. The government funding agency often has internal conferences of companies working on similar technologies. There is strong technical networking within the government. This is a very valuable source of information.

The Bad

The Bureaucracy. The government agency that pays may not be the same one that awards the contract and the different government agency that audits the contract has a totally rigorous mind set. Its primary purpose is to audit military contract companies to make sure they do not make too much profit. Arguments and lawsuits abound in which the government and the company disagree about payment of part of the CEO's perks. This means that the company has to set up explicit and constrained internal accounting systems to prove that only the correct things (people included) are charged to the government. Most people in a start-up value their freedom, and time cards and charge numbers are viewed as a nuisance. You need an extra person (or persons) to set up this accounting program correctly or you will have a serious cash flow problem because you may not get paid for years.

The Delays. The award will probably arrive nine months after you have written the proposal. You will have probably con-

Material Matters is a forum for expressing personal points of view on issues of interest to the materials community. tinued your own research and will be smarter when you get the contract than you were when you wrote it. The contract monitor, however, will expect you to do what you said that you were going to do at the earlier time. If your best people now want to work in a different direction, you will have a slight management problem. If this is not handled well, morale and motivation may suffer.

The Exposure. The contract probably requires reports that tell your competitors (with some delay) what you are doing. This will upset your investors. They expect you to invent all the good stuff on the corporate money and do the routine stuff on the government money. A small company can and should get a waiver to permit it to own all of the intellectual property and patents (and even schedule a delayed final report) when the initial contract is issued.

The Final Report. No one in a small company wants to write an archival report. Structure your proposal so that you get a final payment when the report is delivered and remind your people that this relates to their budget for equipment (or even their salary). This is not a refereed journal article, just a solid review of your work.

The Ugly

The Lack of a Clean Ending. The funding for subsequent years of a contract depends on the availability of funds from the funding agency, which depends upon funds from the agency budget, which depends upon the approval of Congress. During any delay, you are expected to maintain the facilities and staff to deliver on the contract when it is continued. A large defense contractor has some flexibility to move people from one contract to another and smooth out the staffing fluctuations, but if you have only one contract, you should be prepared to have these "extra" people work on something valuable to the company, and have the resources to pay their salaries.

Government-Owned Property. If you buy something on the contract that is not used up during the contract or part of a deliverable, you have to account for it and either send it to the government or purchase it. If you build a piece of equipment using both government-paid parts and company-paid parts, you will have a built-in "mess." Order just what you need and identify and keep governmentowned items separate so you can close the books on it. You do not get to keep leftovers!

The Audit. The government takes the position that all payments to contractors

are tentative, pending a final audit. These audits come at random times. The company bills the government on a formula based on actual labor and material loaded with some negotiated multiplier for overhead costs and G&A [general and administrative] (hopefully even profit). These rates are a pure guess until audited and the risk remains that the company may be asked to return some money. The auditors may also determine that the government owes the company money, but even if the auditors make such a determination, the contracting agency may not have any more money and may take years to find some to close your billings.

The Paper Trail. Unless you are both diligent and lucky and all of the above is settled, you will continue to have to explain in future prospectuses that this financial uncertainty exists in your dealing with the government and you may owe them some money, or they may owe you some money. This tends to make you look somewhat incompetent, but usually can be explained by blaming government paperwork delays.

Remaining Questions

So should you go for government contract money ? Absolutely!

Should you go *out of your way* for government contract money? **No Way!**

There is always research that some

agency of the government needs to have done and is interested in funding. There are series of Broad Agency Announcements (BAAs) and Small Business Innovation Research (SBIR) announcements that outline these. When you see a government need that is complementary with what your company is going to do anyhow, bid for it! The first requirement is usually only an extended abstract of your idea. Even the company president can probably write that. If you are then asked to submit a full proposal, the staff planning effort is valuable even if you do not win an award.

Should you try to use government funding to avoid raising equity money? No Way!

You cannot handle the cash flow delays as a new government company. You need cash for continuing operations and your own corporate growth. If you have to factor your receivables on a government contract, you lose the profits to the factoring firm. If you even find a way to borrow money before you have a profit history, you will have to pay exorbitant interest rates. (Not quite "six for five over the weekend or your kneecaps," but close). Raise equity even if you have to accept a lower valuation for the company than you think you would like.

Should you lobby your legislators for more government funding for research? **Absolutely!**

There is only a limited amount of government (tax) money and there are many vested interests that would like to have less government funding for research (and more for their own interests). It is somewhat of a zero sum game. Join forces with your city, county, university, water district, open space agency, or any entity that has a common interest. Promote the scientific community to get its piece of the action. You probably belong to several organizations. Ask them what they are or could be doing to help you.

R.J. Pressley co-founded Silicon Video Corporation in Cupertino, California in 1991, and was president until last year. He remains a board member and technical consultant. From 1979 until 1990, Pressley was founder and president of XMR, which was acquired by Amoco Technology Company. Prior to founding XMR, he co-founded Laserscope, a surgical systems company, where he now serves as a board member. Pressley's background includes extensive technology and technical business development activities, starting with 17 years of display-related research at RCA Sarnoff Laboratories. He has over 30 years experience in innovative, high technologydriven organizations. Pressley received his PhD degree in physics from Princeton University and his BS degree in physics from Michigan State University. He has published a book and numerous technical articles.

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