

INTRODUCTION

The Army has a growing need to collaborate and partner more with industry. When we look at the nexus between what is available to the Army in terms of the various innovations occurring in industry and elsewhere and what the Army can actually do to exploit those innovations, three innovative approaches emerge as promising candidates for collaborating and partnering with industry: (1) forming real-estate public-private partnerships (PPPs), (2) using Army venture capital mechanisms as a research and development funding and collaborating tool, and (3) spinning off Army activities into Federal Government Corporations (FGCs). While these three approaches seem promising, there is a need to understand more fully the potential and liabilities of each one, which is the goal of this document.

REAL ESTATE PUBLIC-PRIVATE PARTNERSHIPS

Although the Army has substantial real property holdings, it has diminishing resources to support or use those holdings. This mismatch forces the Army to make unpleasant choices. Using PPPs—characterized by a sharing of resources to achieve similar or, at least, not incompatible goals—can help the Army deal with the fact that it has valuable nonmonetary resources, including real property, that can help achieve Army requirements if used imaginatively and flexibly.

Previous RAND Arroyo Center research has shown that using PPPs can improve the Army's readiness posture, generate revenue, reduce cost, and leverage non-Army resources for improving and adding to Army assets. Despite these benefits, however, PPPs are not used much because they raise a number of concerns.

First, many argue that being so involved in PPPs directly impinges on the Army's core mission. However, the Army is in the business of real property maintenance whether it chooses to be or not, and maintaining its real property actually *detracts* from its core mission. Smart use of PPPs can reduce the Army's role in real property maintenance.

Second, many are concerned that making Army real property available for commercial use and development raises the potential for unfair competition with the commercial sector. Although the concern is real, it can be addressed by having the Army issue and enforce rules and guidelines for evaluating the "fair market value" of assets offered.

Third, many are concerned that in developing tools for implementing PPPs, attempts will be made to provide as much discretion as possible to the local level, while bypassing the political process. This concern can be addressed by carefully balancing the need for local discretion with requirements to address political concerns. While they are probably too strict, various safeguards are installed in current partnering tools to ensure that the political process is heavily involved in forming PPPs. The current safeguards can be used to help guide the development of more flexible partnering tools.

Finally, engaging in PPPs with Army assets implies that more people outside the military will have access to Army bases, thus raising security concerns. Although it is a legitimate concern, there are already mechanisms in place to deal with this issue. A related concern is that less desirable or even disruptive activities could find their way onto Army property; however, this can be addressed by establishing guidelines for permissible uses of Army real property.

Given that PPPs have numerous benefits and assuming that the legitimate concerns they raise can be adequately addressed, developing them entails pursuing three activities. First, appropriate ideas for PPPs must be generated. Instead of the current ad hoc approach, we

recommend taking a proactive approach, starting with the premise that many good ideas for PPPs are being discussed at the installations and that, if tasked, the Army would end up with an impressive list of candidates.

Second, the Army needs to value PPPs effectively, which we argue should involve using a series of value indicators that include the quality of the local community, the mission of the installation, available capacity, criteria for success, and potential uses.

Third, the Army must decide among the tools available for implementing real property PPPs. Although they are limited, leases, facilities-use contracts, and special legislation show that these tools, used diligently and imaginatively, offer opportunities to create more PPPs with Army real property.

VENTURE CAPITAL APPROACHES

Over the past decade, the amount of resources the Army devotes to research and technology development has stagnated. Despite this, the Army's expectations and requirements for advanced technology continue to grow. Specifically, science and technology (S&T) capability is postulated as a central driver in the Army's planned transformation.

Given this asymmetry between resources and requirements, developers of Army materiel are forced to look to the commercial technology sector, which, unlike the Army (or, for that matter, the Department of Defense), has seen its research and development (R&D) spending quadruple in three decades and continues to grow at more than 4.5 percent per year. Unfortunately, like most DoD organizations, the Army has difficulty gaining and maintaining access to the advanced technology being developed in the commercial sector. The most prominent barriers to greater collaboration between the Army (and DoD) and industry are (1) intellectual property concerns, which combine with the fact that most companies do research for their own purposes, not as a service for hire, and (2) excessively bureaucratic requirements and the related distrust of government involvement and oversight in company affairs.

DoD has pursued some solutions to overcome these barriers, but they have not proved very effective. In particular, it has designed new tools, like Other Transactions (OTs) and Cooperative Agreements (CAs), to access the commercial technology base, but the Army has not made much use of them. The Small Business Innovative Research (SBIR) and the Small Business Technology Transfer (STTR) programs also address the problems to a certain extent and are relatively successful, but program limitations in terms of funding, timing, and nonmonetary resource availability have constrained their overall utility to the Army. Using a venture capital model for funding research and development of interest to the Army is one option for addressing the lack of access to the commercial technology sector. An Army venture capital fund that invests in companies and technologies that are of interest to the Army and have potential for commercial market penetration can provide significant benefits. In particular, an Army venture capital fund (1) can exploit innovation, (2) can better access commercial technology, (3) can leverage non-Army resources, and (4) can provide a return on investment (ROI).

Perhaps the best method for establishing an Army venture capital fund would begin in a small way with the Army partnering through an OT agreement with an established organization to begin work on a limited set of problems. The Army partner would organize and staff itself, if not already set up as such, to use venture capital as a tool for solving the problems in the partnership agreement. With an agreement in place and a small number of projects under way, the Army could then look for congressional endorsement and additional funding through the authorization and appropriations process.

Once established, an Army venture capital fund has to ensure that appropriate technologies are selected. First, the technology must have clear military and commercial applicability. Second, the Army must be a “power user” (i.e., have a requirement for a new product or technology ahead of other potential users). Finally, the technology must be “mature enough” to develop into a product or proprietary technology in the limited time and with the limited dollars that venture capital investing implies.

In addition, the fund must be integrated with other Army technology programs. One link is the need to find “sponsors” and users for the

venture-backed technologies within the Army. Also, venture capital could be integrated into existing programs to make them better. For example, the SBIR program funds hundreds of technologies each year that are usually too immature for venture capitalists. An integrated venture capital approach could provide needed funding and support beyond that provided by the SBIR program. Likewise, the SBIR program could be a source of technologies for the venture capital fund, particularly if some of the SBIR awards are given with the fund's problem set in mind.

ARMY ACTIVITIES AND FGCs

FGCs were established over 200 years ago by Congress as a way to manage government-run operations that needed a high degree of autonomy and flexibility, more common to business-like activities, because these organizations were required to produce revenues to meet or approximate their expenditures. Since then, FGCs have become firmly established as an organizational model for governmental activities that have many attributes more common to a commercial business. Certain activities in the military (e.g., depots, research and development, transportation, etc.) may also be described as having commercial-like attributes and so may also be improved by adopting an FGC organizational structure.

Organizing certain military functions as FGCs may be attractive to the military because of the built-in flexibility. FGCs

- are free of many bureaucratic regulations such as the Federal Acquisition Regulation/Defense FAR Supplement (FAR/DFARS), the Civil Service regulations, the Competition in Contracting Act, various Office of Management and Budget (OMB) circulars, etc.;
- have flexibility of ownership in that they may be wholly or partially publicly owned with potential to be fully privatized;
- have flexibility of federal governance, i.e., freedom to assign board seats; and
- have flexibility in crafting language within their Articles of Incorporation that determine how the organization will be managed.

Given the inherent flexibilities in organization, personnel, and governance that FGCs enjoy, the military could take advantage of them and tailor FGCs to meet its specific needs.

At least three Army candidates for FGCs have been proposed: (1) Army chemical demilitarization, (2) Army R&D laboratories, and (3) Army depots. As part of the 1998 Army Materiel Command (AMC) Redesign Overarching Integrated Product Team (OIPT), the Army considered turning its chemical demilitarization operations into an FGC. Although the assessment was positive, no action was taken. At this stage in the demilitarization process, it may now be too late to consider making this organizational change. However, the other two FGC candidates are still timely and relevant, and the Army has not seriously studied them.

In both cases, RAND Arroyo Center assessed the value of different organizational models, including FGCs, in relation to a set of performance criteria. For the Army R&D laboratory analysis, which focused on AMC laboratories, the research looked at fifteen organizational models in terms of eight criteria using a Delphi evaluation approach with four rounds of ratings. The results indicated that the FGC model, as a candidate replacement for the current AMC laboratories, ranked in the highest of the four generic groupings, along with the federally funded research and development center (FFRDC) and the government-owned/contractor-operated (GOCO) models. By highest, we mean that the FGC, the FFRDC, and the GOCO models were the strongest models overall, with none of the eight performance criteria being challenging to achieve.

Analyzing Army depots, the research assessed six organizational models in terms of five generic categories of criteria using a traditional consensus-forming approach with the evaluators ranking the various alternatives after discussing them in an open forum. The results of the assessment indicate that the FGC, as a candidate approach dealing with issues in the current Army depot system, ranked in the highest overall among all the approaches.

There are three additional reasons why the FGC model is appealing for Army depot maintenance. The first reason is that using this concept removes the activity from the rigidity of the annual budgeting and appropriations process, when that rigidity conflicts with the

basic nature of the business. The second reason for considering FGC approaches for the Army depot system has to do with the mandate facing the Army from the 1997 Quadrennial Defense Review (QDR) to eliminate 17,366 civilian positions by fiscal year 2004, 8,530 of which are supposed to come from AMC. By applying the FGC concept to its depot system, the Army could make reductions to its *government* civilian workforce without having to eliminate jobs. The third reason for looking at the FGC idea for the Army depot system is that senior Army leadership has already considered the concept and indicated its willingness to pursue it further—an important prerequisite for possible success.

CONCLUSIONS AND RECOMMENDATIONS

While the three collaborating/partnering concepts appear promising for possible Army exploitation, each one needs key issues to be resolved before the Army can seriously consider it for implementation. In the case of the PPPs, various implementation issues must be resolved within the Army, including whether the installations can propose financially sound concepts. In the case of the venture capital concept, its potential to meet the Army's technology needs must be addressed in further detail. Monitoring the status of the venture capital efforts undertaken recently by the CIA will help in this assessment. In the case of FGCs, the value of this model for Army laboratories and depots will depend on how much external commercial opportunity exists and further analysis on how to best structure continuing relationships with other Army organizations.

Once these key issues are satisfactorily addressed, the Army should create pilot programs to test the concepts. This approach is consistent with the new industry paradigm that argues that one learns more about something by acting on it (in this case, by establishing pilot programs) instead of, as in the past, waiting until it is thoroughly understood before acting.