

Innovation: Not Invented Here Anymore

Written by Nick Sanders
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In the 5/18/2014 edition of the National Defense Industrial Association magazine, Sandra Erwin wrote-

Cuts to federal spending have wreaked havoc on Defense Department research and technological pursuits, officials insist. Potential adversaries are modernizing while the next generation of U.S. weaponry remains bogged down in budget quagmires. ... But the Pentagon also has itself to blame for losing the cutting edge, current and former defense officials contend. While budget cuts and sequestration have disrupted the Defense Department's research-and-development flow, they argue, a major impediment to innovation is a hidebound military establishment that cannot stay apace with advances in technology.

Another obstacle to innovation is the Pentagon's propensity to build 'big, robust, work-forever' systems with closed architectures that are incompatible with other software or computers ... How the Pentagon connects with the private sector also hinders progress ...

We've noted this challenge [before](#) . Others are noticing the same thing.

Bill Greenwalt, writing in Wired magazine, [stated](#) -

Despite some initially promising reforms in the early 1990s, the IT acquisition problem has gotten worse and the government continues to trail the private sector in its effective use of

new technologies and approaches. Nor is the \$500 billion annual federal acquisition problem limited to IT; it transcends major defense systems, research and development, construction, services contracting and commodities. A one-size fits all, rules based, Rube-Goldberg machine ensures that procurement failures are magnified and not left to chance.

The great mystery in all of this is why the federal government is failing in its IT programs when some of the best IT talent resides in U.S. The answer is that Silicon Valley is not involved in government contracting. ... many of the most **dynamic, innovative, successful,**

commercial firms will not bid on a standard

government contract because of the costs of complying with federal acquisition rules and the limited returns associated with federal procurement. Limited? Think under ten percent for government contractors, versus returns of 20 percent and above in the commercial world.

Reforms made in the Federal Acquisition Streamlining Act of 1994 and the Clinger Cohen Act of 1996 made it easier to sell to the federal government, and for a while, commercial firms tiptoed into the federal market. However these reforms did not go far enough for many commercial companies. For example, the changes failed to remove the requirements to comply with unique government accounting standards, they failed to protect commercial intellectual property rights, and failed to stop arbitrary government audits. With the passage of time and without senior leadership support, bureaucratic inertia set in and resulted in the re-imposition of old requirements, in the creation of new barriers to doing business with the government, and in a *de facto* preference for government-unique rather than commercial solutions. So Silicon Valley did what it does best: ignore the government and make a lot of money elsewhere.

The current strained fiscal environment demands that the federal government move away from a process-driven acquisition system if it is ever going to access the cost saving opportunities and innovative solutions that have arisen in the commercial market. A system that only works by going around it is not a workable system and should be dismantled.

Not to be outdone, the Center for a New American Security issued [a report](#) (with significant input from former Deputy Defense Secretary William Lynn) that "the U.S. weapons industry moves too slowly to adjust to current trends." According to the Reuters story (link above), the report "said industry and government need to invest more in new technologies and remove regulatory and acquisition barriers that hinder U.S. firms. ... The report called for reforms to allow more U.S. and foreign firms to participate in the U.S. weapons market, greater communication about the Pentagon's technology needs and measures to safeguard private intellectual property."

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Whether you call it a triumph of bureaucracy or an innovation shortfall, the fact of the matter is that the Pentagon finds itself falling behind the private sector in terms of development speed and effectiveness. We don't have any brilliant answers to help DOD solve its innovation challenges, but we do have one observation to make.

When you keep buying based on the lowest priced solution, when you keep awarding contracts based on lowest perceived risk, when you insist on high Technology Readiness Levels ... you are not going to get much innovation.

There was a time when basic research was seen as a public good, even when that research resulted in a dead end. The government was pleased to fund scientific inquiry, secure in the notion that knowledge was good and that progress would sooner or later result from that knowledge. Those days seem to have largely faded away. Nowadays we have Apple and Google and Facebook (which are the end product of government-funded research) and they seem to have plenty of money to splash around in the name of research and innovation.

You want to spearhead defense innovation? Then you had better ask one of those big players to help you out.