# Opinion: Economies Of Scale Ain't What They Used To Be

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Steven Grundman

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While elites were in Davos, Switzerland, for the recent World Economic Forum, I was in Washington at another forum introducing the acquisition executive of the U.S. Special Operations Command, James "Hondo" Geurts. While the settings for these two gatherings could not have been more different, their central messages were strikingly similar. Both underscored that talented, focused people are the keys to progress and effectiveness in an age of increasingly complex challenges. However, listening to Geurts and thinking about the particular significance of this people-first maxim for aerospace and defense brought into focus what I regard as an important corollary to the rule: Economies of scale just ain't what they used to be. Small is the new black.

Previewing the theme of the World Economic Forum in the December 2015 *Foreign Affairs*, Klaus Schwab, its executive chairman, explained the industrial revolution that lies before us like this:

The first Industrial Revolution used water and steam power to mechanize production. The second used electric power to create mass production. The third used electronics and information technology to automate production. Now a fourth Industrial Revolution is building on the third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital and biological spheres.

The advent of this brave new world, writes Schwab, holds both promise and peril for business, government and society. For business, "the emergence of global platforms and other new business models . . . means that talent, culture and organizational forms will have to be rethought," he writes. "In the future, talent, more than capital, will represent the critical factor of production."

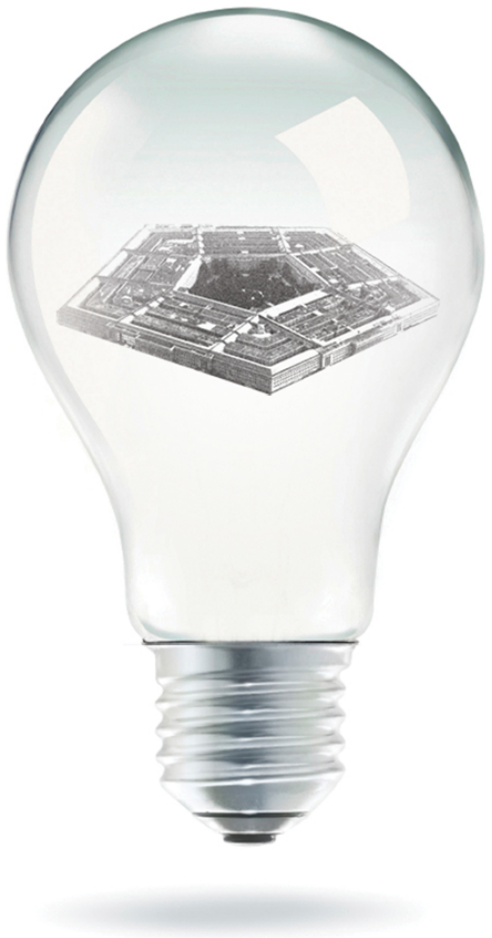
Beyond that premise, however, Schwab's article sheds little light on the question Geurts got me thinking about: Exactly how will these social and technological trends change organizations, especially those comprising the structure of aerospace and defense?

To answer the question for myself, I reached back to some research my former colleagues and I did at Charles River Associates in 2010 to help aerospace companies apprehend the state of "Innovation in Aerospace & Defense" at the inflection marking the tumultuous close of the century's first decade. In it, we noted a progression of the organizational forms underlying the industry's iconic achievements across the previous century. NASA's Apollo program, arguably the crowning achievement of Schwab's second revolution, exemplified the leverage that large-scale and concentrated resources gave to that era's technology base. A generation later, in the glory days of Schwab's third revolution, there emerged from a small lab at Eglin AFB the makings of what became the Joint Direct Attack Munition, which leveraged a now distributed technology base (GPS, geospatial mapping) into what is arguably the most iconic weapon of the military's late-20th century precision revolution.

Following this progression forward, we, like Schwab, envisioned a diffuse and diversified technology base and

corresponding organizations that leverage advanced sensing, big data and information networks in still more atomized forms.

All of which brings me back to Hondo Geurts. Like Schwab, Geurts is an apostle of the people-first maxim. Speaking from the podium of the Atlantic Council, he convincingly argued that Special Operations Command's renown at rapidly putting advanced technologies in the hands of elite warriors derives from its people and a culture of trust and accountability, not from any special dispensations from the acquisition regulations. "We can talk process all day," said Geurts. "I'm not a process guy, I'm an outputs guy, and the way to get outputs is to focus on intent, people and culture."



At the same time, I couldn't help thinking that Geurts's focus on outputs is in part a luxury afforded by the size of his enterprise. It's not exactly "small," by any measure. Geurts plans and executes a budget of some $6 billion for technology, acquisition and logistics which he says involves about 400 programs and projects, 100-200 combat evaluations and 100 science and technology efforts. At the same time, however, his acquisition organization has only about 600 people. That is roughly the size of my high school or the Army battalion in which I served, organizations in which it was possible for everyone to know everyone.

Geurts himself acknowledges the importance of his organization's small scale. Comparing his own challenges to those of counterparts in the military departments, Geurts says, "I have an inherent advantage: I own [science and technology]. I own the acquisition. I own the contract. And I own the procurement and the sustainment." Not least, Geurts credits the quick tempo of his shop to the team-sport mentality that prevails when Special Operations Command's operators, budgeteers and program managers gather face to face to solve problems.

Scaling up is a reflex our industry and military need to rethink, if not altogether unlearn. Scale efficiencies counted for a lot in an age when electric power, mass production and Moonshots were creating big economic and social value. By its ability to create the illusion of control and coordination with information and telecommunications tools, the Information Age perpetuated Industrial Age expectations about how large scale would help solve complex problems and reduce costs.

But scale efficiencies were never infinite, and the bend in that curve arrives sooner still in an age in which talented labor, rather than capital investment, is the critical factor of production. Talented people will not work in organizations the rely on inches-thick policy manuals to instill culture or where massive investments in the tools of coordination—enterprise resource planning software, travel budgets, etc.—appear to trade off against pay and benefits.

Asked about his hopes for the Defense Department's so-called Third Offset, Geurts said nothing about the fantastic future of technology. Instead, he said the way special ops will offset adversaries' comparative advantages is with speed. "Velocity is my combat advantage," he says. "Iteration speed is what I'm after. If I can go five times faster than you, I can fail four times and still beat you to the target, and I know I'm going to have a better product when I get there."

Now there's a manifesto of competitive advantage for the fourth Industrial Revolution, one to which large scale is antithetical. Small—it's the new black.

*Steven Grundman is the principal at Grundman Advisory and Lund Fellow at the Atlantic Council.*

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