

We Are Under Attack

By Mike Rainone



If you build
and nurture the
culture, innova-
tion will come.

Our only salvation is to out-innovate the rest of the world

In March, I spoke at the World's Best Technology (WBT) conference in Arlington, TX. I addressed a large venue of venture capitalists and other parties interested in my company's new wastewater treatment system, the Water Phoenix.

This national conference is part of Arlington's grand plan to bring high-tech innovative companies to the region. It is an attempt to create and nurture a culture of dynamic innovation — not unlike that created by Silicon Valley in CA, the Research Triangle in NC or Loop 128 around Boston.

Jurisdictions across the country are attempting to do the same, and they each realize that domestic money has allowed China, Korea, Taiwan and Japan to become major powers. The only way to survive is to maintain and increase the single edge that we still have as a nation; our ability to create and develop cutting edge technology. Our only salvation, in other words, is to out-innovate the rest of the world.

We need to re-grow the infrastructure of innovation, which in my estimation comes from four major factors. It requires:

- Great educational institutions from the primary to the university level.
- A willingness to take risk through a culture of entrepreneurship.
- A broad-based financial infrastructure which is not risk averse, and which provides everything from seed capital to venture capital to a banking system.
- A culture of innovation.

As the people in Silicon Valley demonstrate quite well, if you build and nurture the culture, innovation will come.

Venture funds are drying up, and an increasing number of us would rather work for banks than take the risks of entrepreneurship. Our educational system is increasingly preoccupied with politically- and religiously-correct doctrine, and we seem to have lost our focus on science and math. In short, our educational infrastructure is not up to the task of providing the educated manpower for a technological future.

How do we rebuild our societal infrastructure to nourish the creators, inventors and entrepreneurs willing to take risks and create new prod-

ucts? How do we prepare our children to battle for our economic survival?

We must first understand that this is not a regional problem; it is a national concern, and we must recognize the importance of the federal government's role in providing leadership and funding. Only the federal government has the resources, the bully pulpit and the media reach to get us all marching in the right direction.

Emphasize Education

Back in 1957, when Sputnik scared us out of complacency, our federal government embarked on a huge campaign to increase science and math education by funding many math and science enrichment programs. Today, we have to re-emphasize these disciplines and demand that our schools do a much better job in making science and math attractive and engaging for young minds. And we must provide the funding for this effort.

Reward Risks

Entrepreneurship should be rewarded and encouraged through tax laws and mentorship. The Small Business Administration (SBA) should be strengthened and taken seriously. Instead of working through banks, the SBA should have its own funding source and be encouraged to fund innovative, high-tech startups. The Center for Entrepreneurship at the University of Texas-Arlington is an example of an organization at the forefront of this movement. Such organizations should become hubs for entrepreneurial activity that is supported with funding, management assistance, new product development assistance and other resources.

Currently, university leaders are being asked by legislators to help defray the burden on taxpayers by working to turn their research efforts into profitable endeavors. Commercializing our inventive national work should be encouraged, especially in light of current competitive shortcomings.

The Role of the Government

Private money has become risk averse and

extraordinarily scarce. To believe in the private market to provide enough seed funding to create a high-tech infrastructure is delusional.

The federal government has to make funds available to seed startup development companies. Nearly every govern-

ment agency participates in Small Business Innovation Research (SBIR) programs. SBIR grants allow agencies to find the development assistance they need, and it also allows small businesses to find problems that they are qualified to solve.

Unity of Purpose

It is near political suicide for Democrats and Republicans to join forces on any issue. As a result, our Congress seems incapable of cooperation and collaboration. We have created a national zero-sum game, and neither side seems to recognize that the real battle is with the far east. We are in an all out economic war and if we can't work together, we will continue to lose.

We need a unity of purpose, a common goal to unite and drive us forward. In the late 1950s, our zeal was fueled by the space race. There was also a serious concern that without the heavy-lift rockets that could send us to the moon, and lift a nuclear warhead (coincidentally), we would be vulnerable to attack from the Soviet Union.

We are now under attack in a far more insidious, subtle way, but the stakes are the same. Today, our place in the world economy, our standard of living, our freedom and our way of life are on the line.

Mike Rainone is the co-founder of PCDworks, a technology development firm specializing in breakthrough product innovation. Contact him at mrain1@pcdworks.com and visit www.pcdworks.com. 