



DUPONT SUMMIT 2013

..... Pressing Issues, Economic Realities

December 6, 2013 * Historic Whittemore House, Washington, DC

The Policy Studies Organization

Speakers

Martin Dudziak - *The Lifeboat Foundation*

Gordon Miller - *G3 Systems, Inc.*

Rao Mandava - *TetraDyn Ltd.*

Viktor Sokolyuk - *Church World Service Immigration and Refugee Program*

Peter Donlevy, *The Highland Group, Inc.*

“Workshop on the “Great STEM Disconnect and Divide” : Overcoming barriers after Completing the R&D”

Within the broad landscape of global threats and emerging technologies that have utility for preventing or countering such threats, there have been viable solutions that are identified, carried through a successful period of research and development, brought to a point of deployment including commercialization, and then there are barriers, typically on the field of business and finance for that next stage of turning a working prototype or limited-use system into something that is full-scale and available in the open marketplace.

During the past decade in particular, but with roots going back into the mid-1990's, there has been a parallel and unstemmed transition within some quarters of both public and private sectors such that “STEM” solutions are often judged on the basis of a combination of very short-term, near-horizon outlooks with respect to funding risk and profitability, coupled with what appear to be extensive misconceptions regarding the technical substance and the socioeconomic context in which some inventions and new technologies can play important roles. This appears to be a frequent “condition of the times,” particularly in the domains of medicine and defense. There have been several “casebook” developments of new and economically sound devices and software for detection and diagnosis of several truly global threats relating to chemical, biological, radio-nuclear and explosive materials and organizations that may execute such threats upon civilians in the form of terrorist acts. The same may be said for some new and very capable technologies for countering biological specific natural threats to large populations and to vast food supplies. In many cases, that which is ready for commercialization,

(Continued on next page)



DUPONT SUMMIT 2013

..... Pressing Issues, Economic Realities

December 6, 2013 * Historic Whittemore House, Washington, DC

The Policy Studies Organization

“Workshop on the “Great STEM Disconnect and Divide” : Overcoming barriers after Completing the R&D”

manufacturing, and large-scale distribution to a global user base has been ignored or deliberately “shelved” due to adverse conclusions being drawn by certain private and public sector persons (e.g., venture fund investors, agencies) regarding any one of more of the following factors: need, complexity, time to market, cost to manufacture, competition, and market demands. Often these conclusions appear to be based upon some fundamental misconceptions and misunderstandings about global events and progressions in world and national affairs (e.g., the threats from CBRNE weapons, such as chemical weapons use in Syria, or the level of active threat from “lone wolf” and “unaligned” terrorists within the USA.

This workshop aims to bring to the foreground, using defined, historical examples, how this “mismatch” situation has evolved, and very important for our collective global future, how these problems can be averted in the future in order that the “better and best” technologies can be put into the hands of users who need and recognize the need for these answers.

Lost in Translation – Peter Donlevy

Most entrepreneurs at some time will tell you that people “just don’t understand” and often that is true. The nature of entrepreneurship is that the business development process is early-stage with needs that are either unrealized or else being met only through less efficient methods. What is often painfully obvious to the entrepreneur is completely hidden from most consumers and nearly all investors. On the other side of the coin, consumers are typically late adapters and investors are almost always risk adverse. To an entrepreneur, this appears to be lack of vision; to the consumer and the investor it appears to be smart risk avoidance.

To bridge this gap we must create a common understanding. An excellent place for all three groups to begin understanding each other is through adaptation of Maslow’s Hierarchy of Needs. This can be easily and clearly translated to each group in such ways that the projected view of other’s group need is replaced by a true need as self-defined by each group.



DUPONT SUMMIT 2013

..... Pressing Issues, Economic Realities

December 6, 2013 * Historic Whittemore House, Washington, DC

The Policy Studies Organization

Biographies

Martin Dudziak is a theoretical physicist whose work in quantum relativity and macroscopic quantum systems has been balanced and interwoven with applications spanning problems and issues in biophysics, cognitive science, artificial intelligence, and the world of ECP (Emergent Critical Processes). He has led technical and product development at innovator/incubator firms including Silicon Dominion (nano-materials and sensor networks), MODIS (magneto-optic nondestructive sensing) and Tetrad Technologies (now TetraDyn). Through academic and corporate institutions Martin has conducted projects funded by NIH, DOE, NSF, DOD and the intelligence community, including collaborations with partners in Europe and Asia. He is actively engaged in the formation of the Institute for Innovative Study, its LEAPS Laboratory, and its four Seminar Series, and he serves as an officer and board member in a number of for-profit and non-profit organizations.

A graduate of Colgate University, Johns Hopkins University, and The Union Institute and University, Martin's career spans research (both theoretical and applied) plus management roles within corporations including Battelle Laboratories, Intel Corp., ST Microelectronics, McDonnell-Douglas and Lockheed-Martin. He has been on the regular faculties of the Physics and Biomedical Engineering departments at Virginia Commonwealth Univ. (Medical College of Virginia) and has been a visiting professor at several other institutions in the US and Europe.



DUPONT SUMMIT 2013

.....: Pressing Issues, Economic Realities

December 6, 2013 * Historic Whittemore House, Washington, DC

The Policy Studies Organization

Biographies (Continued)

Gordon Miller is President and CEO of G3 Systems, Inc. and Managing Partner within G3i Ventures LLC. Mr. Miller first focused his attention on K-12 and higher education solutions and then corporate websites and decision support systems. Before founding G3 Systems in November 1993, Mr. Miller was Founder and Director of the Multimedia Lab, and a Founding Fellow for the Center for Human Computer Interaction, both at Virginia Tech. Mr. Miller completed his Masters degree at Virginia Tech in 1991 and earned a Bachelors of Fine Arts in Design from Virginia Commonwealth University in 1987.

As CEO of G3 Systems, he has led R&D efforts in the areas of Interface Design, Systems Integration, Training Development and Modeling and Simulation, serving clients including US Departments of Defense, Education, Housing and Urban Development, State and Homeland Security.

Mr. Miller is Founder and Managing Partner of G3i Ventures, LLC which serves early stage and emerging growth companies. Over the last 16 years, Miller has invested over \$2 Million in 12 companies creating over \$100 Million (50x) in value for those companies he has invested in while returning an average of a 5x personal return on investment (ROI).



DUPONT SUMMIT 2013

..... Pressing Issues, Economic Realities

December 6, 2013 * Historic Whittemore House, Washington, DC

The Policy Studies Organization

Biographies (Continued)

Rao Mandava is Vice-President for New Business Development at TetraDyn Ltd. He has a Masters in Structural Engineering from University of Memphis, TN. Prior to joining TetraDyn, he had founded and operated a successful software consulting business in addition to providing medical transcription services through outsourcing work based in India.

Prior to that, Rao worked in real estate, insurance and stock brokerage businesses. As a general partner Rao syndicated and managed three real estate partnerships. He has more than 20 years of marketing experience spanning market sectors for both individuals/families and companies/institutions. Rao has been active for more than fifteen years as a consultant to both for-profit and non-profit enterprises for business planning, financial forecasts, market analysis, and new business growth. Rao and his wife are long-time residents in the Greater Chicago area.

Viktor Sokolyuk is Program Director of the Church World Service Immigration and Refugee Program in Virginia. serving as a Board of Immigration Appeals Accredited Representative since 2006. Based in Harrisonburg, VA, Viktor came to the Unites States from Ukraine with assistance of Episcopal Migration Ministries and began his ministry with CWS IRP in August 1991 as a part-time interpreter. Viktor has worked with widely diversified ethnic communities and family groups arriving in the USA from extreme hardship conditions that range from the effects of natural disasters to chronic political/ethnic conflict and persecution. He has developed programs addressing readjustment for persons with diverse educational and professional backgrounds and is active in programs to enhance professional innovation and business enterprise development including within the scientific, medical, and engineering sectors.



DUPONT SUMMIT 2013

..... Pressing Issues, Economic Realities

December 6, 2013 * Historic Whittemore House, Washington, DC

The Policy Studies Organization

Biographies (Continued)

Peter Donlevy is a transformational leader willing to be on the front lines of a changing world delivering results that make a difference in people's lives. Currently he is a Senior Partner at The Highland Group, Inc., an international consulting firm to Fortune 1000 firms. Formerly Peter was the founding CEO of East Horizon Airlines in Afghanistan, the first airline licensed under Afghanistan's new internationally compliant aviation regulations. Peter has also worked to commercialize multiple early-stage technology companies emanating from Georgia Tech, his Alma Mater, as well as leading start-up, early-stage and mid-stage companies. Peter holds Master's Degree in Management of Technology from Georgia Tech.