EXECUTIVE SUMMIT ON MARINE AND HYDROKINETIC RESEARCH AND DEVELOPMENT

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renergy

SAND2016-1571C








Technology Transfer 101

March 2, 2016

Amanda J. Spinney

Business Development and Partnerships
Sandia National Laboratories

Sandia's Rich History of Tech Transfer

Laminar Flow Clean Room, 1962

- Game-changing for the development of microelectronics
- ~ $50B worldwide

- Polycrystalline diamond compact (PDC) bits
- Helping to unlock ~ 70 years' worth of natural gas resources

Recipient of the Federal Laboratory Consortium's 2016 Award for Excellence in Technology Transfer

Mechanisms for Partnership

Strategic

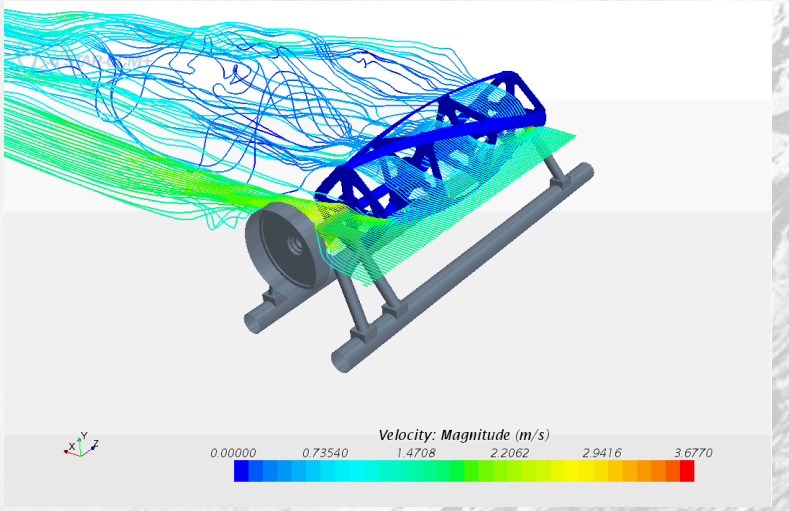
Collaboration

Transactional

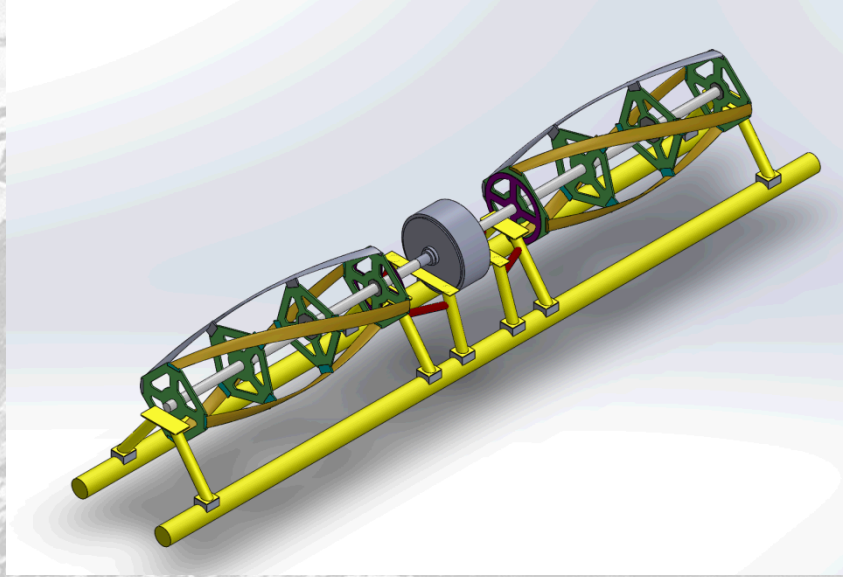
- Umbrella CRADA
- CRADA/SPP
- Small Business Voucher
- NM Small Business Assistance
- Consulting
- IP License
- Sandia Science & Tech Park
- Entrepreneurial Leave
- Government Use Notices
- Open Source Software

High Fidelity Evaluation of ORPC's RivGen® Cross-flow Turbine

- Demonstrated significant improvements to the RivGen® TGU performance can be gained by a redesign that focuses on reducing the number of struts or streamlining their design.



Isometric view of RivGen® TGU

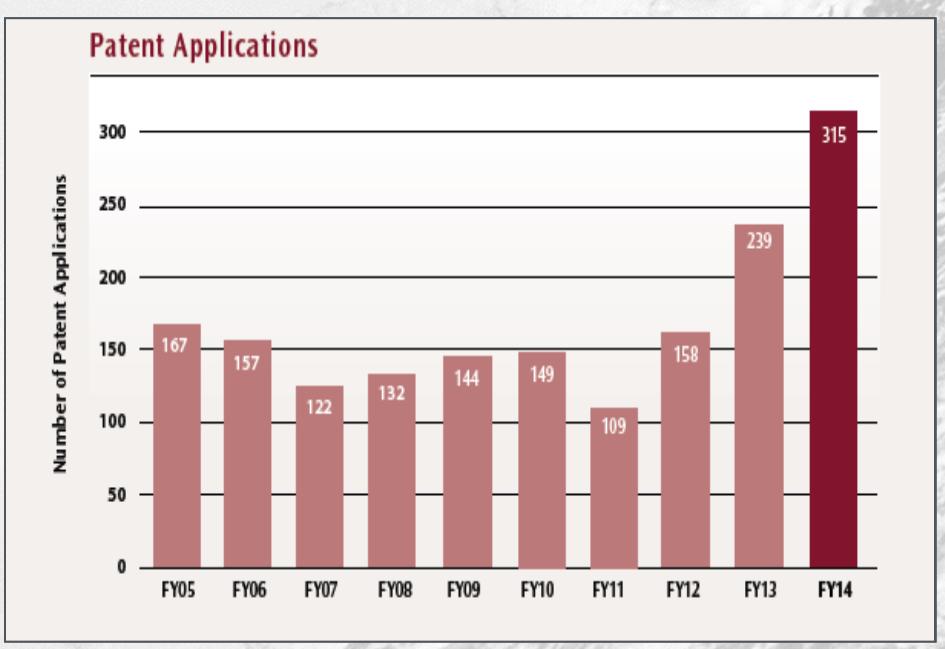


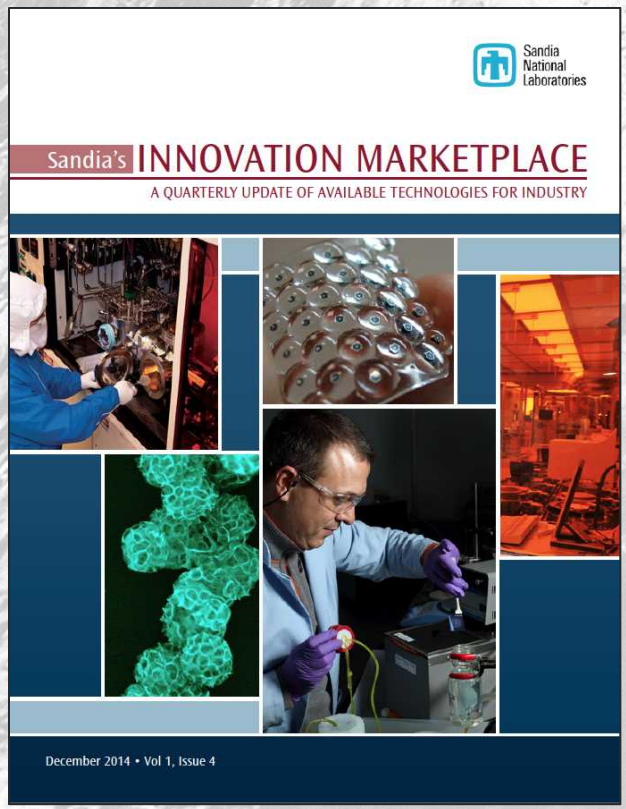
Vincent Neary, Principle Investigator
Andrew Murphy
Carlos Michelen
Ryan Coe

"The work performed on the RivGen analysis is a nice piece of work! … Thank you for all your good work!"
- Jarlath McEntee, Vice President of Engineering & Chief Technology Officer

Intellectual Property

Sandia's intellectual property may be licensed for commercial use, test and evaluation, or execution of a government contract.





Sandia has more than 1,200 patents and 500 commercial copyrights, most of which are available for licensing.

New Mexico Small Business Assistance

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

- Joint program between Sandia National Laboratories and Los Alamos National Laboratory
- Since its inception in 2000, this program has:
  - Provided **$43.7M** in technical assistance from the labs
  - Assisted **2,341** businesses
  - Created and retained **4,086** jobs
  - Supported **33** counties

"With NMSBA's help, we can now find the sweet spot of sustainability in wind development negotiations." – Damon Brown

Aquila Partnership

https://www.youtube.com/watch?v=aZbJK2jkes0

Sandia Science and Technology Park

Center for Collaboration & Commercialization (C3)

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

- 40 companies and organizations
- 2,300+ people
- Cyber Engineering Research Laboratory
- Center for Integrated Nano Technologies

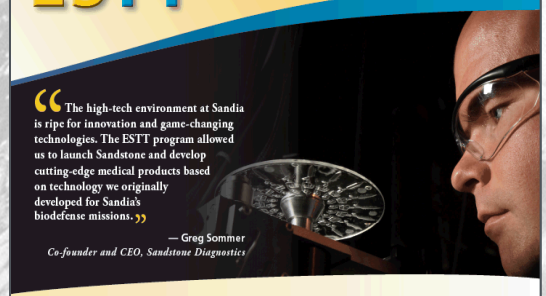
Entrepreneurial Leave

Report of the Secretary of Energy Task Force on DOE National Laboratories

June 17, 2015

TECHNOLOGY VENTURES CORPORATION

ESTT ENTREPRENEURIAL SEPARATION TO TRANSFER TECHNOLOGY



"The high-tech environment at Sandia is ripe for innovation and game-changing technologies. The ESTT program allowed us to launch Sandstone and develop cutting-edge medical products based on technology we originally developed for Sandia's biodefense missions."

— Greg Sommer
Co-founder and CEO, Sandstone Diagnostics

OVERVIEW

Entrepreneurial Separation to Transfer Technology (ESTT) is a valuable tool which allows Sandia National Laboratories to transfer technology to the private sector and Sandia employees to leave the Labs in order to start up new technology companies or help expand existing companies. Entrepreneurs are guaranteed reinstatement by Sandia if they choose to return to the Labs.

RESULTS*

		In NM	Outside NM
Companies affected by ESTT	99		
- Start-up companies	49	42	7
- Expansion companies	50	23	27
Sandians who left on ESTT	145		
- To start up a business	62	43%	
- To expand a business	83	57%	
- Returned from ESTT	41	28%	
- Terminated employment	98	68%	
- Currently on ESTT	6	4%	

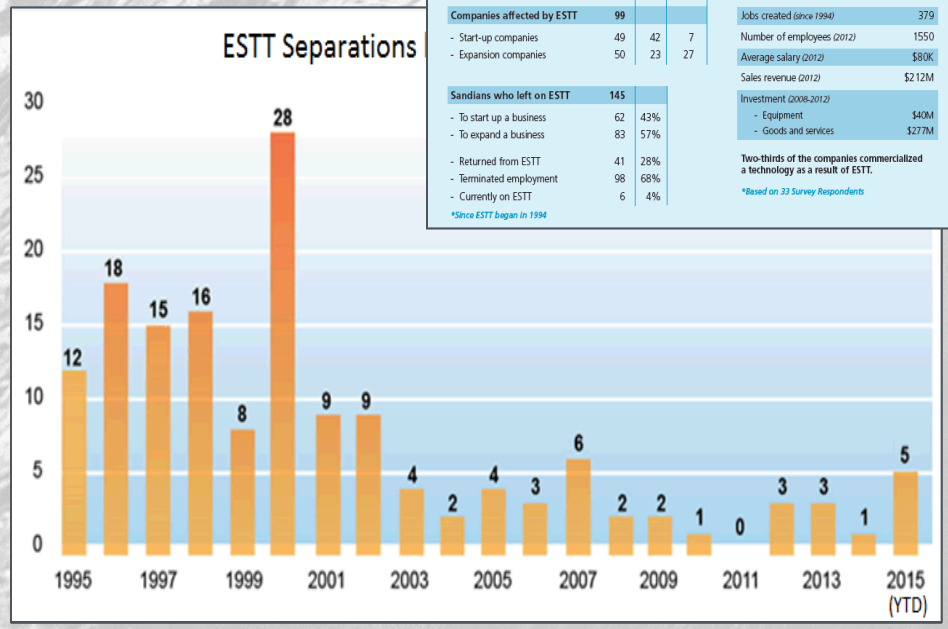
*Since ESTT began in 1994

ECONOMIC IMPACT*

Jobs created (since 1994)	379
Number of employees (2012)	1550
Average salary (2012)	$80K
Sales revenue (2012)	$212M
Investment (2008-2012)	
- Equipment	$40M
- Goods and services	$277M

Two-thirds of the companies commercialized a technology as a result of ESTT.

*Based on 33 Survey Respondents



SBV Pilot Overview

SBV is intended to further DOE's clean energy and economic development missions by increasing small business access to the expertise, competencies, and infrastructure offered by DOE's national labs.

Pilot Goals:

- Broaden lab awareness of small business needs and technologies
- Encourage labs to develop outreach strategies to showcase capabilities
- Align lab business practices with private sector timelines

Sandia's Role:

- One of five Lead Labs

More Info:

- Panel on Wednesday, March 2, 1:30pm
- www.sbv.org