

**COMMONWEALTH CENTER FOR  
ADVANCED MANUFACTURING: A  
model for public-private partnership in  
advanced manufacturing**

**Donald J. Leo  
Vice President and Executive Director  
National Capital Region  
Virginia Tech**

# CCAM is a collaborative public-private partnership between industry, academia, and government





**Dr. Keith Williamson**  
Dean  
School of Engineering  
Sciences and Technology  
CCAM Board Member

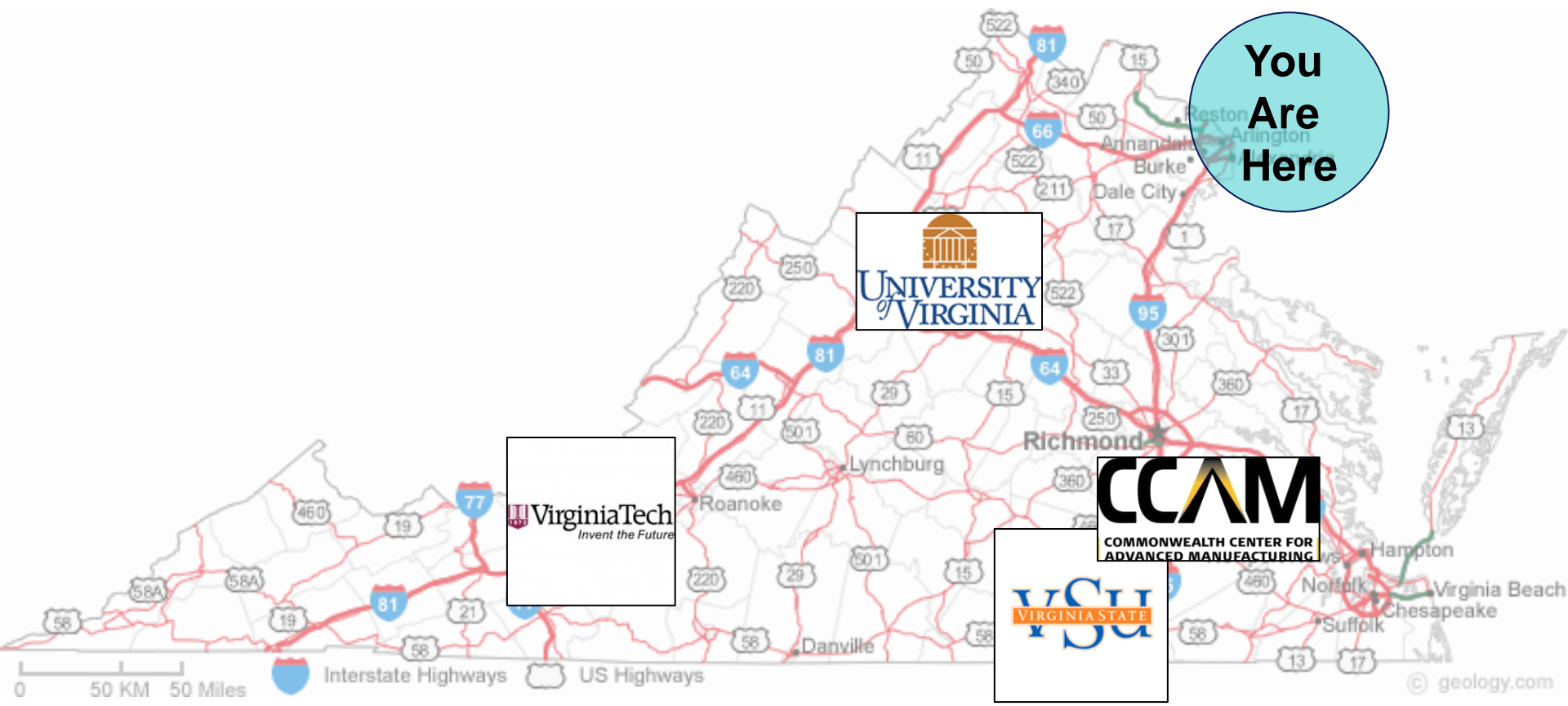


**Dr. Barry Johnson**  
Senior Associate Dean  
School of Engineering and  
Applied Sciences  
CCAM Board Member and  
Founding Chair



**Dr. Donald Leo**  
Vice President and Executive Director  
National Capital Region Operations  
Virginia Tech  
CCAM Board Member

# CCAM is located in the mid-Atlantic region near Richmond, VA



You  
Are  
Here



# CCAM is part of Crosspointe, a manufacturing campus that will include multiple Rolls-Royce facilities and supplier facilities



President Obama announcing the NNMI program, March 2012 at Rolls-Royce Crosspointe

# CCAM accelerates the development of production-ready technologies for its corporate members



**CHROMALLOY**



**Newport News  
Shipbuilding**  
A Division of Huntington  
Ingalls Industries



**Rolls-Royce®**



**SIEMENS**

**SULZER**

**Sulzer Metco**

**AEROJET**



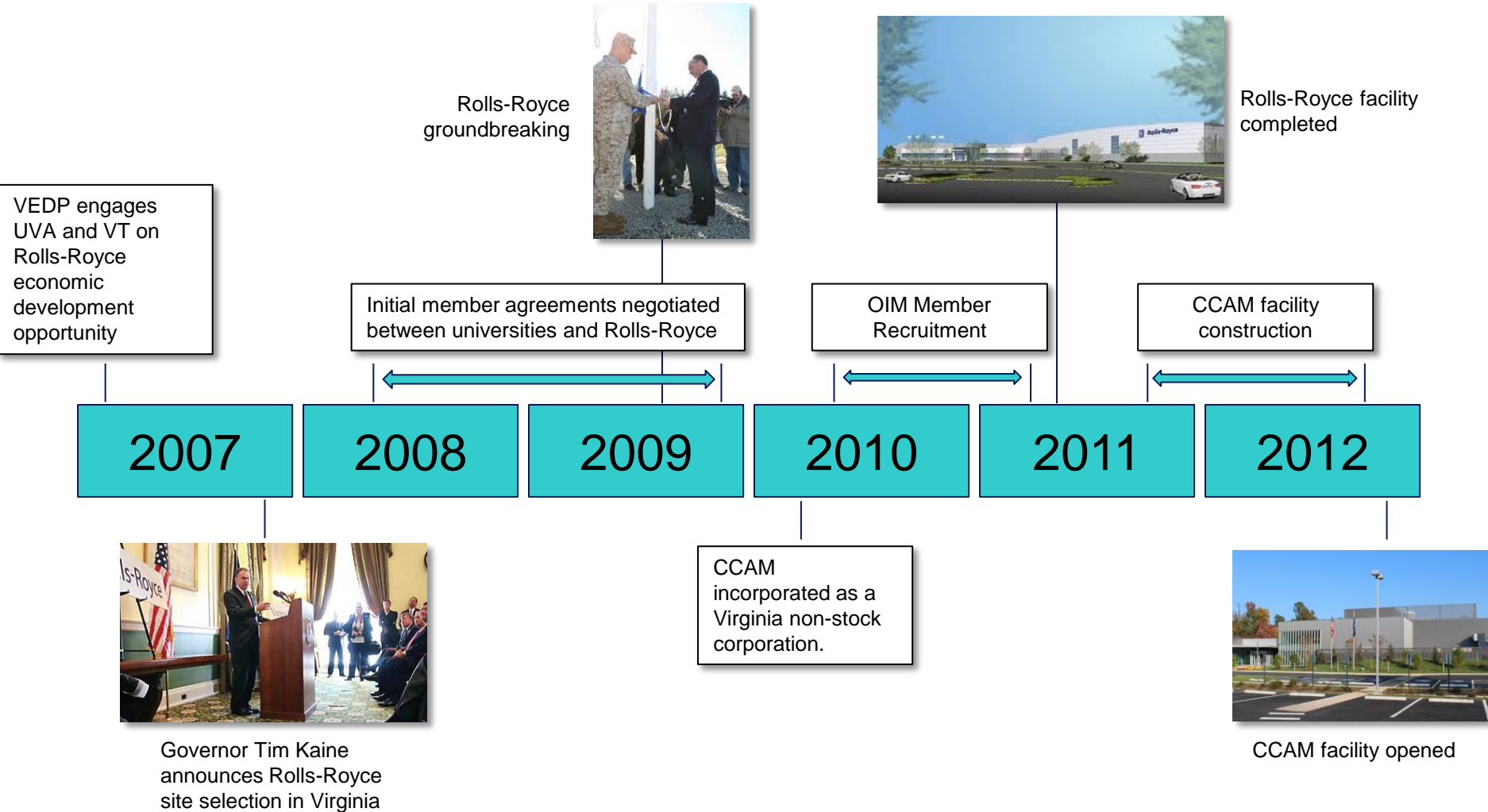
**Mitutoyo**



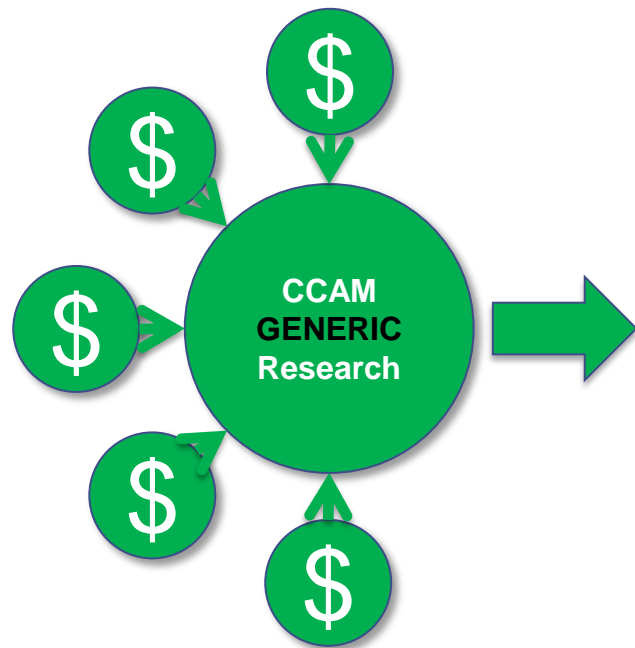
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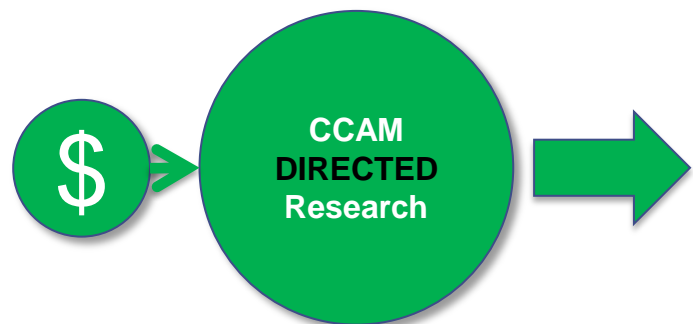
# CCAM has been a multi-year, collaborative effort



# CCAM is structured to enable various types of research activities



**Corporate research \$ is amplified by gaining IP access to results of ALL generic research.**



**Corporate sponsor OWNS any IP resulting from Directed Research.**



- **CCAM enables the translation of basic research results into industry practice.**
- **Close collaboration with industry through CCAM enables greater understanding of industry needs.**
- **Production-scale equipment in CCAM provides opportunities for joint funding of translational research projects.**
- **CCAM provides on site research opportunities for faculty and students. CCAM has already hired student interns from all three partner universities and is currently funding graduate students and post-doctoral associates through sponsored research.**

# Key lessons learned in building a public-private partnership

- **Our decision early in the partnership to adopt a consistent and graduated IP policy was critical to member recruitment. The universities had to be flexible on the IP policy to attract members willing to invest sufficient funds to make CCAM a viable enterprise.**
- **Engaged industry board members – at the executive level – are critical to continued corporate engagement in the center.**
- **Early, comprehensive planning has been critical to initial member recruitment. Flexibility in the bylaws and member agreements has been important to growing the center.**
- **Appointing enthusiastic faculty liaisons has been critical to engaging the universities in the project.**
- **Support by local and state government has been an important element to member recruitment and workforce development.**

**The long-term goal is to lead the nation and the world in translational research for advanced manufacturing.**

- **Increase industry representation in new manufacturing sectors.**
- **Obtain federal funding for a large multi-year initiative.**
- **Make CCAM and Crosspointe the hub of manufacturing activity in the region.**