RampMD Legislative Breakfast

Tuesday, December 12, 2017
8:00 a.m. at Groundfloor

8:00	Networking and Continental Breakfast
8:30	Welcome from Dave Wheatley, Regional Additive Manufacturing Partnership of Maryland Board president
8:35	RAMP MD Overview, Chris Cosgrove, RAMP MD Vice President
8:45	New developments in additive manufacturing ▪ Technology/Hardware/Software – Lester Hitch, EOS of North America ▪ Materials – Kyu Cho, Army Research Laboratory ▪ Education and Workforce – David Antol, Harford Community College
9:15	Roundtable discussion with business in Maryland (SURVICE, DWE Plastics, RPM Tech, Root3, Repliform, CIMQuest)
9:45	Open Discussion
10:00	Adjournment

Legislative Breakfast Overview

Additive manufacturing is an important technology sector for Maryland; not only is additive an important technology for product developers across all industries, it is a catalyst for growth for other sectors of great importance to Maryland, like bio-medical and biohealth. RAMP MD established in 2014 to help additive manufacturing industry in Maryland expand. To do this, RAMP MD holds Symposia, and creates private-public partnerships between industry and government organizations.

The field of additive manufacturing is poised for enormous growth and ability to transform manufacturing as we know it. Nationally, the additive manufacturing market has grown from $1B in 2012, to $8.8B in 2017, and is expected to grow to $26.5B in 2021

However, growth is restrained by several technological limitations:

- Additive manufacturing tends to be a slow and costly process, but there are new advancements that are solving this problem and getting us closer to widespread adoption. Lester Hitch, EOS of North America, will talk about new hardware and software developments.
- Plastics are widely used in additive manufacturing, but other materials are in development and necessary for wide-spread application. Researchers are developing new materials and processes in this area. Kyu Cho, of Army Research Lab, will talk about research taking place in materials science.
- Manufacturers need personnel with specific skills in 3D printing and CAD/CAM. Community colleges are stepping up with specific certifications and pathways into these lucrative careers. David Antol, of Harford Community College will discuss their new pathway and the partnership with industry to develop it.

Small businesses use additive manufacturing in a variety of ways. Most manufacturers use it in combination with traditional manufacturing methods. Statistics who that most manufacturers are using it to create prototypes and for new product development. Some biohealth applications include personalized medicine. Industry experts suggest that as technological limitations are removed, 3D printing will be able to be increasingly used for mass production. This will signal a huge leap forward for the industry and will lead to rapid transformation of manufacturing as a whole. We'll talk with several manufacturers about how they use additive manufacturing and where opportunities exist for it to be an important vector for Maryland's economic growth.

Representatives from SURVICE, RPM Tech, Root3 Labs, CIMquest, Repliform, and DWE Plastics will participate in this roundtable discussion.

There will be time for discussion and dialogue. Several companies will have samples of products that have been 3D printed. The event will adjourn at 10 a.m.