UNIVERSITY SYSTEM of MARYLAND

HOUSE WAYS AND MEANS COMMITTEE
HOUSE BILL 1239
Economic Development - Maryland Technology Partnership Program
Urging a Favorable Report with Amendments

Chair Kaiser and members of the House Ways & Means Committee, thank you for this opportunity to testify on behalf of House Bill 1239. My name is Tom Sadowski, Vice Chancellor for Economic Development for the University System of Maryland.

Maryland's economic prosperity is driven by its innovation-led ***advanced industries.*** These industries are anchored by our world-class universities, federal research assets and significant talent base. According to The Brookings Institution, "Advanced industries encompass the nation's highest-value economic activity– and represent our country's best opportunity for innovative, inclusive, and sustainable growth." *(Source: Brookings Institution, America's Advanced Industries—February 2015).* Today, the most obvious of these industries reshaping Maryland's economy include—cyber security and the life sciences. However, there are other key sectors where Maryland possesses competitive strength and most importantly "first mover advantage" if we can forge productive collaborations with the federal government and industry. These advanced industry sectors are similarly driving the rapid technological change and disruption in the global marketplace; they include the areas of inartificial intelligence or AI, quantum computing, robotics, medical devices and clean energy just to name a few.

The USM plays a major role in providing the talent and developing the new technology and innovation fueling these advanced industries. Annually, USM institutions graduate more than 11,000 STEM professionals and conduct $1.4 billion in sponsored research. More than half of the new STEM professionals that the USM produces each year remain in Maryland to pursue their promising careers and contribute to the high standard of living we all enjoy. More than 90-percent of this research activity USM institutions conduct is tied to supporting the objectives of the many federal, installations, laboratories and research missions throughout our great state. While these facts are great sources of pride, they also point to areas of tremendous opportunity going forward.

From a talent perspective, we are working to increase our STEM talent production, using the most innovative and technical skill driven means possible, and keep them in Maryland. In the DC-Maryland-Virginia Region more than 257,000 tech jobs remain unfilled and while this market boasts twice as many such jobs than others in the U.S., we are not generating the volume necessary to keep pace with demand. From a research perspective, our collaborations with the federal government are strategically vital—however, according to the United Nations global R&D reports, more than 65% of all sponsored research conducted in the United States today is funded by industry. Given this fact, Maryland has a great opportunity to use the important work we are doing with federal customers to pursue market relevant partnerships with industry. This will lead to increased research

activity, discovery, new business creation and high paying employment opportunities for our graduates and residents alike. Simply stated, our goal is not just to stay the course but to build upon the great economic foundation that we have helped to build here in Maryland. Going forward, Maryland needs an innovation-led growth strategy—one that secures Maryland a position of competitive dominance in key industry sectors and the opportunity to grow in such a way where we can attract and retain the best and brightest minds. This type of innovation-led advanced industries focused strategy will help drive not just Maryland's, but the global innovation economy for the foreseeable future.

HB 1239 is crucial in the pursuit of a such focused and strategic growth strategy for Maryland. Passage of this legislation will provide an investment mechanism or "Fund" within TEDCO that will enable the USM and its higher education partners to leverage and scale federal government and private industry resources for maximum impact and economic gain— fostering new investment and the creation of joint laboratories, research facilities and physical environments where our students, researchers, innovators, entrepreneurs and investors can nurture grow and scale new ventures. Ultimately, this approach will aid Maryland is building upon the strong economic foundation it has already established, while inspiring a strategic cultural shift away from a government-centric economy, to one that will be innovation-led drawing from collective industry, government and higher education capital sources.

Maryland's current economic strengths and advantages cannot be guaranteed over time. Collaborations amongst industry government and higher education have become the new normal—and the recipe for future success. States like Massachusetts, Ohio, Texas, Georgia and New York are today making investments in their innovation infrastructure to encourage the types of collaborations. Maryland must do the same. Today we are leaders in the development of great minds and new innovations— we can build upon today's success and command a more dynamic, inclusive and sustainable economic future.

For these reasons, on behalf of the University System of Maryland, I respectfully request the Committee's favorable report on HB 1239 with amendments.

HB1239 –Economic Development – Maryland Technology Partnership Program
Suggested amendments

Amendment No. 1:
Page 3, line 11
Strike 'LIFE SCIENCES OR CYBER-RELATED" and insert: MARYLAND'S ADVANCED INDUSTRIES INCLUDING LIFE SCIENCES, CYBERTECH OR OTHER TECHNOLOGY CLUSTERS WHERE MARLAND HAS A NATIONAL ADVANTAGE DUE TO THE PRESENCE OF FEDERAL, ACADEMIC AND PRIVATE TECHNOLOGY RESOURCES"

Page 3, line 19
Strike 'TWO LEADING ADVANCED INDUSTRIES OF LIFE SCIENCE AND CYBER RELATED INDUSTRIES" and insert: "ADVANCED INDUSTRIES OF LIFE SCIENCES, CYBERTECH AND OTHER TECHNOLOGY CLUSTERS WHERE MARYLAND HAS A NATIONAL ADVANTAGE DUE TO THE PRESENCE OF FEDERAL, ACADEMIC AND PRIVATE TECHNOLOGY RESOURCES'

Amendment No. 2:
Page 5, line 23
Strike "TWO" and insert: "ONE"
Page 5, line 25,
Strike "TWO" and insert: "ONE"
Page 5, line 27 Insert: (III) AT LEAST TWO MEMBERS REPRESENTING EMERGING TECHNOLOGY CLUSTERS WHERE MARYLAND HAS A NATIONAL ADVANTAGE DUE TO THE PRESENCE OF FEDERAL, ACADEMIC AND PRIVATE TECHNOLOGY RESOURCES'
Page 5, line 27, strike (III) and insert: (IV)

Amendment No. 3:
Page 6, line 5
Strike 'LIFE SCIENCES OR CYBER-RELATED" and insert: MARYLAND'S ADVANCED INDUSTRIES INCLUDING LIFE SCIENCES, CYBERTECH OR OTHER TECHNOLOGY CLUSTERS WHERE MARYLAND HAS A NATIONAL ADVANTAGE DUE TO THE PRESENCE OF FEDERAL, ACADEMIC AND PRIVATE TECHNOLOGY RESOURCES"

Amendment No. 4:
Page 9, line 19 strike "AND" and insert "," strike "." and insert: AND EMERGING TECHNOLOGY CLUSTERS WHERE MARYLAND HAS A NATIONAL ADVANTAGE DUE TO THE PRESENCE OF FEDERAL, ACADEMIC AND PRIVATE TECHNOLOGY RESOURCES'
Amendment No. 5:
Page 10, line 12 strike "AND" and insert "," strike "." and insert: AND EMERGING TECHNOLOGY CLUSTERS WHERE MARYLAND HAS A NATIONAL ADVANTAGE DUE TO THE PRESENCE OF FEDERAL, ACADEMIC AND PRIVATE TECHNOLOGY RESOURCES'