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**Maryland Manufacturing Innovation Act of 2022****Statement of Support by Open Works****HB1384****Hearing before the Ways and Means Committee, March 9 at 1 PM**

Open Works is a nonprofit makerspace (a public-access workshop) located in Baltimore with a mission to make tools, technology, and the knowledge to use them accessible to all. We fulfill that mission by providing affordable membership access to industrial tools, including metal/welding, woodworking, digital fabrication, sewing, electronics, 3D printing, and digital media; providing technical education in how to use these tools for all ages; and providing studio space to entrepreneurs, small businesses, nonprofits, and artists.

We are a space dedicated to the intersection of advanced technology, manufacturing, and education. The adoption of Industry 4.0 standards – a set of practices and technologies that include artificial intelligence, predictive maintenance systems, Internet of Things sensor systems, digital fabrication equipment, and assistive technologies for workers – are critical to the future of manufacturing in our state. They enable faster, smarter production systems that prioritize worker safety without sacrificing throughput.

Open Works demonstrated the power of Industry 4.0 systems during the first wave of the pandemic in March, 2020. Using open-source face shield designs and a distributed network of 288 volunteers with access to over 1,000 3D printers, we manufactured over 28,000 units of PPE in just 56 working days for groups including the University of Maryland Medical Systems, the Amtrak Police, and the USDA. This was accomplished using sophisticated fabrication technology that can translate physical objects into information, transmit them all over the world at a near-zero marginal cost, and manufacture them on-demand, hyper-local, and with lean supply chains.

Maryland is falling behind our neighbors in this type of innovation. We rank well below median rates in all four indicators in the 2020 Kauffman Entrepreneurship Index. Startups are created at a lower rate, survive at a lower rate, create less jobs, and lure less founders away from their jobs than our neighbors in D.C., Delaware, New York, and Pennsylvania. Similarly, Maryland continues to see its once-mighty manufacturing base shrink, losing over 25,000 manufacturing jobs since 2007, with non-farm manufacturing employment shrinking to just 4.1% of the workforce in 2021.

HB1384 would encourage this type of innovation by providing direct grants to purchase and upgrade the complex capital equipment needed for small- to mid-size manufacturers (SMEs) to grow into Industry 4.0 standards. This in turn would encourage innovation, enhance worker safety, create jobs, and grow the manufacturing base in Maryland again.

For these reasons, Open Works encourages a favorable vote on HB1384.