On April 19, 1965, three years before co-founding Intel, Gordon Moore predicted that transistors—the fundamental building blocks of the microprocessor and the digital age—would decrease in cost at an exponential rate and increase in performance. For the last 50 years, “Moore’s Law” and ever-tinier Intel processors have been the invisible force behind amazing innovations that have transformed our world and our lives.

Today, the pervasive spirit of innovation unleashed by Moore’s Law continues to transform not just the technology industry but the world. Young makers, eager inventors, aspiring scientists and doctors and countless others will continue to amaze the world with ideas and breakthroughs that today we cannot even imagine.

*FOOTNOTE: Intel introduced the world’s first microprocessor, the 4004, in 1971. To illustrate the power of Moore’s Law, contrast that early chip with today’s Intel® Core™ i5 processor.