

Senator Mazie K. Hirono

Questions for the Record following hearing on April 27, 2017 entitled:

“Intellectual Property – Driver of Innovation: Making Our Lives Healthier, Safer, and more Productive”

For All Witnesses:

1. Last year, a report the Institute for Women’s Policy Research (IWPR) that found that at the current rate of progress, women inventors will not reach parity in patenting until 2092. Only 18.8 of all patents had at least one women inventor in 2010. In addition, where women are the primary inventor, their patents are concentrated in areas such as travel goods, personal belongings, jewelry, and apparel.
 - a. What is your company doing to encourage more innovation by women?

Before discussing what we do to encourage innovation, let me provide a brief summary of innovation by women at Kateeva. One of the three MIT engineers that founded Kateeva is a woman. In addition, women are named inventors on 22% of Kateeva’s patent families, all of which are in the high technology field. Women account for approximately 33% of Kateeva employees with Science or Technology PhDs. Of the five directors in scientific or technical departments, two are women. In addition, Kateeva’s IP Director (responsible for managing invention capture and IP prosecution) is also a woman. Kateeva’s performance in these respects is above the norm.

We have had successes, but improving innovation by women in the workplace requires continued attention. While Kateeva does not have a specific policy of promoting innovation by women, Kateeva does encourage innovation by women by promoting a workforce culture of inclusion and respect. We articulate the value of this culture through what we call our Kateeva Spirit. That spirit shows up in the ways we conduct our regular work. Our workplace and our meetings are inclusive, welcoming and engaging. Among the cultural values that we have found to be important in achieving are the following: respectful discourse, high transparency, and work-life flexibility. These values have helped us attract capable women to the Kateeva team and have helped ensure we hear, understand and, as appropriate, recognize their contributions.

2. In an article in the April 2017 issue of the Atlantic, entitled “Why is Silicon Valley So Awful to Women?”, the author cites a report from the Center for Talent Innovation which found that when women drop out of tech, it is not typically for family reasons or because they dislike the work. Rather, they drop out for reasons such as feeling stalled in their career or undermining behavior from managers.
 - a. What best practices do you use at your company to encourage women to remain at your company and support them in pursuing patents for the work they are doing?

To repeat what I provided in my answer above, we have had successes, but improving innovation by women in the workplace requires continued attention. We are continually trying to improve in this area through promotions, assigning women to leadership roles, providing mentoring access to senior executives, providing flexible work schedules as requested to accommodate work/life balance requirements, and creating a culture where successful and innovative employees thrive. While we have work to do in all of these areas, the fact that we are a start-up affords us a level of freedom to create the kind of workplace that is both inclusive and high performing.

For Dr. Madigan:

1. Your company Keteeva, founded in 2008 is considered a startup. According to a 2015 report from Harvard Business School and the USPTO, approval of a patent increases the startup's probability of securing funding from venture capitalists, 2.3 percentage increase over three years. Keteeva made news in Silicon Valley when in 2014 you received \$38 million in investment funding from Samsung.
 - a. Please explain the importance patent approval made in your ability to secure funding.

As Keteeva has developed its patent portfolio, Keteeva's patents have become an important part of Keteeva's desirability to investors since Keteeva's patent portfolio would allow Keteeva to strongly defend its business against "copy-cats" if ever the "copy-cats" got good enough to compete with Keteeva's product on the basis of price-performance. This consideration was especially critical for Keteeva as there are many examples over the last 10 years of companies in Keteeva's industry reverse engineering and copying competitor's products. However, due to the long process of patent prosecution, Keteeva's initial investment rounds were closed before any of the Keteeva's patents were issued. While this weakened the perception of Keteeva's IP portfolio, Keteeva overcame this limitation by working with legal and technical experts hired by our investors to assess the quality of Keteeva's patent applications, and step-by-step persuading them that our patent applications were strong and likely to be issued with broad claims. Once Keteeva began receiving issued patents, this process became much easier, and many companies trying to get funding do not have the resources or wherewithal to overcome this hurdle. As a result, the long patent prosecution process remains a significant challenge for high technology start-ups trying to seek funding before their key patents have been issued.

2. In Hawaii, the University of Hawaii has teamed up with Sultan Ventures to form XLR8UH, a first of its kind Proof of Concept Center and Venture Accelerator. Mr. Madigan, your company grew out of MIT combining their technology with your own to develop OLED (organic light-emitting diode) displays.
 - a. Would you say that your partnership with MIT was critical to your success?

Whereas Keteeva's products do not utilize any technology owned by MIT or developed by the co-founders while at MIT, the R&D work performed there by the three co-founding engineers

and the two co-founding faculty (Prof. Vladimir Bulovic and Prof. Martin Schmidt) served to train the founding team in the skills and knowledge needed to ultimately develop the technology solutions that would go on to differentiate Kateeva's products from the rest of the industry. Without a doubt, there would be no Kateeva without the training received by the founders at MIT. Furthermore, MIT actively supports its graduates in starting companies, with a highly professional Intellectual Property Licensing Office, a wealth of prototyping and "Maker Space" options, a well-tended relationship with the local venture investor community, and many business school offerings specifically targeted as helping technical entrepreneurs get their ideas off the ground.

b. What more can universities be doing to encourage innovation and startups?

In general, we believe Universities should follow a similar framework as adopted by MIT, including establishing "Maker Spaces" that allow students to prototype product concepts (and allocate funding for student grants for the associated prototyping costs), developing strong relationships with the venture capital industry and with corporate strategic investment groups to help connect students with innovative ideas with investors looking to fund start-ups, and running a professionalized intellectual property licensing office. In addition, Universities should develop and offer general entrepreneurship courses tailored for non-business students, to ensure that innovative ideas that could become start-ups are not stalled merely because there are no "business" students in the founding team.