For materials discovery, Dr. Aspuru-Guzik argues one must go beyond simple computational screening approaches, followed by traditional experimentation. He’s been working on the design and implementation of ‘materials acceleration platforms’ or MAPs. These MAPs are enabled by a confluence of three disparate fields – artificial intelligence (AI), high-throughput quantum chemistry and robotics. The integration of prediction, synthesis and characterization in an AI-driven closed-loop approach promises the acceleration of materials discovery by a factor of 10, or even 100. Dr. Aspuru-Guzik will describe his efforts around this topic under the Mission Innovation umbrella platform.