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Chairmen Schimminger and Thiele, members of the Committee, thank you for the opportunity to testify today regarding New York State economic development programs at New York University that work to assist the transfer of technology advancements into commercial products and services.

NYU has a long history of supporting the movement of university research and development into the marketplace. Overall NYU has been granted over 700 patents, with 58% of those patents licensed and has formed over 70 start up companies which is 87% more startups launched per dollar than the U.S. university average. Specifically, at the NYU Tandon School of Engineering, there are multiple avenues that support the furtherance of university research into companies, products and services that benefit the commercial market. For example, NYU Tandon operates four New York State Certified Business Incubators that have graduated 70 companies, created 1250 jobs with an average starting salary over $70,000, and generated nearly $90 million in economic impact to our community. Additionally, NYU Tandon is home to the Center for Advanced Technology in Telecommunications that is part of the statewide CAT program and I would like to highlight the successes of this program in my testimony today.

The Center for Advanced Technology in Telecommunications (CATT) is a research and education group that promotes industry-university collaborations by providing businesses with support through research, consulting, education and outreach programs. Since our formation in 1982, our mission is to simulate economic growth in New York State by equipping technology providers and users with the tools to access information seamlessly. The CATT draws on the skills of more than 50 key researchers at New York University who are leading authorities in a range of specialties such as cyber-security, wireless and wireline communications networks and devices, secure information technologies and solutions, as well as big data, media and networking applications and services.

In the past years, we have had prominent research achievements including:

- Smart Antennas: Developed ranging and localization techniques and proposed smart antenna structures for WLAN and RFID for Symbol Technology.
Digital Forensics: Faculty and students developed three digital images forensic technologies - smart carving, smart filtering, and guided carving. These technologies were successfully commercialized by a company in our program, Digital Assembly.

Network Forensics: Faculty and students developed network ‘infection detection’ systems, which seek to identify a compromise quickly by monitoring key symptoms that can raise potential flags. A CATT startup, Vivic Networks, successfully commercialized these technologies.

Cellular System Planning Tools: Developed ray-propagation and cell-planning tools for T-Mobile.

Companies of every size collaborate with CATT in order to enhance their research and development efforts. Companies are paired with university researchers who are experts in their fields to help determine the best path to bring ideas to market. The CATT assists these companies with finding the ideal technology to further develop a product or secure a market space. We connect companies with state-of-the-art facilities and leading faculty members at NYU who help turn technological breakthroughs into commercially viable products and services.

In the past year, we have worked with 18 companies to further their research. Our collaborations with these companies have generated 134 new jobs and had a non-job economic impact of over $75 million. Further, our collaborations with these companies helped them achieve a cost savings of nearly $23 million. A few recent highlights of our work include:

- Worked with Con Edison to implement a voltage reduction, resulting in energy savings to both the company and customers.
- Assisted AIG in developing software tools and algorithms to analyze large healthcare datasets, resulting in better health care management to patients across the state.
- Developed algorithms with FutureWei Technologies, Inc to improve standard computer screen images, resulting in better real-time video applications with efficient network transmission for service providers.

CATT also works closely with emerging companies through NYU’s incubator programs to identify startup companies that we can assist in commercializing technologies. A few examples of the companies that have benefited from both NYU’s incubators and the CATT are:

- Digital Assembly - a Brooklyn-based startup developing innovative products for digital forensics and data recovery. The company's one-of-a-kind SmartCarving™ technology allows its products to recover fragmented files from any media with or without a file system.
- BotFactory, Inc. - a NYC startup co-founded by two recent NYU graduates and a CATT faculty member. BotFactory manufactures and sells a desktop electronics
circuit factory named Squink. The team recently completed their production design and is about to ship their first production units. Through CATT’s assistance with this company, four new jobs have been created.

Being located within the greater NYU community further benefits the CATT program as we work closely with other research centers such as NYU WIRELESS, NYC Media Lab and NYU’s Center for Cyber Security. We work closely with these centers on industry wide conferences in order to attract leaders from around the world to New York and help spur industries in New York overall. We also leverage the interdisciplinary research strengthen NYU has overall, including expertise as our School of Medicine and Mathematics departments.

New York’s Centers for Advanced Technology have been a strategic investment from the state that has achieved tangible results for our economy. This investment, at just under one million dollars per center annually, has spurred job creation and industry growth across the state in a variety of technologies. Additional investment in the program would allow the CATs statewide to do even more, and we hope the state will consider making this investment in the upcoming budget year. Specifically at NYU's CATT, further support would provide us with the capability to devote more resources to aid companies with their research and also enable us to provide more startups with assistance to get their venture off the ground.

It is a core mission of NYU Tandon to help provide “technology in service to society” and the NYU CATT has been a wonderful example of how our faculty and researchers can further innovations occurring in our community as well as in our own halls. NYU Tandon has been pleased to be sponsored by NYSTAR over the past 35 years and we look forward to continuing this relationship with the State in order to grow the innovation economy. Thank you for the opportunity to testify today.