

**TESTIMONY OF STEVEN KOONIN,
DIRECTOR, CENTER FOR URBAN SCIENCE AND PROGRESS AT NEW YORK UNIVERSITY
BEFORE THE NEW YORK CITY COUNCIL
COMMITTEE ON ECONOMIC DEVELOPMENT, COMMITTEE ON HIGHER EDUCATION AND
COMMITTEE ON TECHNOLOGY**

September 28, 2012

Good Morning, Chair Koslowitz, Chair Rodriguez, Chair Cabrera and Members of the New York City Council. I am Steven Koonin, Director of the Center for Urban Science and Progress –or “CUSP.” I am very pleased to testify today about that project - to give you some of its background and to update you on our progress. and more generally to talk about applied urban science in New York City.

I am joined today by two colleagues: Gillian Small, the Vice Chancellor for Research at CUNY, who is representing the unique academic partnership at the heart of CUSP – more on that in a moment – and by Lynne P. Brown, Senior Vice President at NYU.

First, let me say how glad I am to be back home, as I am a native New Yorker – in fact, a Brooklynite and a product of our City’s public schools. California was lovely, London had its charms, and Washington was, well, interesting, but they don’t really hold a candle to Brooklyn. And so I would like to take a moment, if I may, to thank the Members of the Brooklyn delegation who emerged as such strong supporters of CUSP and of siting it in that fair borough.

The idea behind CUSP is simple but compelling: for the first time in human history, more than half of the world’s population lives in cities; by mid-century, that proportion is expected to rise to more than 70 percent. Understanding the science of cities – urban systems – will be essential to our planet’s future, and to making our cities healthy, productive, safe, stable, sustainable, and livable. That understanding will let us address global issues and will help to keep this city among the world’s greatest, for we are in a global competition for talent and capital.

With the creation of CUSP, New York City stands to be at the center of that future. New York should be the city from which the key ideas emerge, the city that demonstrates the newest and best solutions, and the city that will be home to the industry helping urban centers address their challenges.

At the heart of CUSP's success as an applied science research institute is a set of important partnerships:

First, there is the academic partnership that links CUSP, NYU, and NYU-Poly with top scholars and universities throughout the world, beginning with our partners at CUNY, and also including Carnegie Mellon University, the University of Toronto, the University of Warwick, and the Indian Institute of Technology-Bombay. Students and faculty from these institutions will strengthen CUSP by contributing their vibrancy, insights, educational skills, and entrepreneurial attitudes to the Center.

Second, there are the partnerships with the private sector – world-leading technology corporations that are eager to be in Downtown Brooklyn and work on CUSP research. These firms – which include IBM, Cisco, Xerox, Con. Ed., National Grid, ARUP, IDEO, and AECOM – will contribute direct funding, research scientists, business expertise, and in-kind services to support CUSP's mission.

Together, these academic and private sector partners form CUSP's core, and help ensure that New York City will remain at the forefront of the emerging field of urban systems.

But we have also made substantial progress in forming another crucial set of partnerships -- with City and State agencies. Working with the leadership and the staff of those agencies, as we have begun to do, will help us define CUSP's research agenda, and permit our students and faculty to work on today's real-world urban challenges, including public infrastructure, public safety, public

health, and environmental sustainability. That collaboration with the City Agencies will be, and indeed already is, offering important lessons for how we can make cities better for their communities and citizens, and share those solutions globally.

I might note that as CUSP is becoming more widely known and better defined, a number of other world-class universities, corporations, and non-profit entities have expressed interest in joining the partnership. Some of those would bring extraordinary capabilities complementary to those of present CUSP members. So watch for us to be announcing a few additional participants in the coming months.

Beyond research, CUSP has an ambitious educational agenda: we will have 50 researchers (30 of them university faculty, 20 of them from our industry partners), 30 post-doctoral fellows, 100 PhD students, and up to 430 Masters students by 2017. We are in the process of applying to the State to create a new degree that is uniquely CUSP's – a Masters degree in Applied Urban Science and Informatics – and hope to receive approval before the end of the year. That will permit us to begin immediately recruiting our first class, whose instruction will start about a year from now.

For all of these reasons, CUSP, along with NYU-Poly, will be a major locus of new faculty hiring in the sciences for NYU in the coming years – a major investment not only in NYU's science and research enterprise, but also an investment in Brooklyn, where CUSP will be located.

Our selection of location was intentional and important. NYU, NYU-Poly, and our university and industry consortium partners are committed to Brooklyn as CUSP's home. In fact, there are three compelling reasons for siting CUSP in Downtown Brooklyn:

- First, we can leverage the engineering, technology, and applied sciences resources at NYU-Poly;

- **Second, CUSP's work on cities serves as the intellectual focus linking NYU-Poly's core strengths in applied sciences to NYU's traditional strengths in basic sciences, the social sciences, and the humanities at our Washington Square campus;**
- **And finally, Downtown Brooklyn – and the nearby DUMBO and Navy Yard neighborhoods – is quickly emerging as New York's hottest new center for tech, and we want to draw on that vibrancy and energy, accelerating it toward the promise that everyone has long foreseen. In doing so, CUSP will become an anchor of the emerging Brooklyn Tech Triangle.**

CUSP will be located in 60,000 sq. ft. of leased space in MetroTech Center through 2017; in fact, construction drawings for the first 26,000 sq. ft. phase of CUSP's space went out for bid on September 14; the design process for that space, as well as adjacent space that will house our classrooms and server room, is well underway and moving quickly. Ultimately, we hope to reside at 370 Jay Street, turning what has been an empty and unused building into a signature home for CUSP, one that tangibly contributes to Brooklyn's momentum. We are working with the MTA and the City in our due diligence review of that 460,000 sq. ft. building, 150,000 sq. ft. of which would be CUSP's research and teaching space and an additional 40,000 sq. ft. would be incubator space for start-ups building on CUSP's technology.

We recognize the tremendous opportunity CUSP offers to strengthen Science, Technology, Engineering and Mathematics education at the K-12 levels throughout Brooklyn and the City. There are few subjects more interesting and compelling for students than understanding the urban world in which they live. We will be partnering with NYU-Poly's Center for K-thru-12 STEM Education, which has an established reputation for creating long-term opportunities for local students to study and learn advanced STEM content.

We understand that CUSP was selected through the highly competitive *Applied Sciences NYC* program because an investment in higher education is a sound investment for a city – it brings good jobs with good benefits; it draws people of

talent – both faculty and students – to our city; and it helps educate our workforce for 21st century employment. But we understand the expectation that CUSP will bring something more: a commitment that entrepreneurship and innovation be woven into its DNA and manifested as a source of new private sector businesses and job creation. A major focus of CUSP – going hand-in-hand with our emphasis on research and education – will be to develop technologies, discoveries, and ideas that can be turned into start-up businesses, and thereby further contribute to the city’s and Brooklyn’s economies. Indeed, it is our hope and expectation that over the course of time, just as New York City is now known as the world capital of finance, of the arts and culture, of publishing and media, so too will it be known as the capital of urban science and systems and their attendant technologies.

Like all of you, I am a New Yorker. And as diverse as we all are in this great city of ours, there are also a common set of issues that matter to us all.

Smart ideas that can make our city stronger matter. A choice of location that helps a neighborhood of our city fulfill its promise matters. Partnerships that can build our city’s institutions and bring talented people to New York matter. Jobs that can help our city prosper matter. And for all these reasons, CUSP should matter to New York, and to you, members of the City Council.

Thank you for the opportunity to speak today.