technology businesses working in an environment of interacting resources continues to shape the marketplace with breakthrough advances. Silicon Valley is a very good example of an innovation ecosystem that is unparalleled anywhere. That is why I could not be more pleased that today's conference on Science and Technology Innovation Ecosystem is being held here at CSUEB. This morning, we come together

Regarding infrastructure, we hope the next State legislature will adopt policies that encourage long-term business investment in Research and Development through tax incentives, as well as funding related public works projects. Moreover, the state could provide other incentives for companies to invest in California, and create a stable policy environment for long-term commitments to stimulate business growth.

An important factor to revitalizing our infrastructure is re-establishing a strong regional manufacturing center in unique niches and have a comparative advantage. Manufacturing represents the highest possible fusion of public and private interests in a number of compelling ways.

Addressing the workforce needs of the region is the most critical and complex of the three elements. Urban public universities offer several enablers in building a well prepared regional workforce, because more than two thirds of their student bodies come from the local area and over 80% of their graduates work and live in the region. Institutional stewardship at a public university is focused on building the workforce for the regional industries, enhancing the economic vibrancy of the region, and developing health care solutions. They are distinctly equipped with individuals with the needed breath and depth of the skills and innovation tools, to engage in these issues and provide solutions. The free and unrestricted flow of information and ideas coupled with a collaborative culture are deeply held values of urban universities. In short, an urban public university can act as an anchor institution for innovation ecosystems, serve as a catalyst of economic engine for enduring regional success.

Allow me to briefly review for you, CSUEB's response in developing an innovation ecosystem for Science, Technology, Engineering and Math (STEM) education. At CSUEB

To address the challenges of delivering our vision of educational programs in support of a learning society, at Cal State East Bay we envision a new educational paradigm. This paradigm is a uniquely systemic, three-part strategy that addresses the following interdependent STEM-related needs, namely: teaching STEM for the 21st century; developing a new generation of STEM teachers; and partnering to build a cradle-to-career STEM pipeline.

Cal State East Bay is implementing its learning society via our P-20 Gateways cradle-to-career partnership. We are one of four pilot sites for a national grant from Living Cities. The partnership builds on existing networks and programs among various stakeholder groups including K-12 school districts, county offices of education and higher education, corporations, foundations, community and public sector agencies. These stakeholder groups all work together to improve the success of students and their families.

As a natural extension and part of our Gateways cradle-to-career initiative, CSUEB has envisioned the creation of a Virtual STEM University. The Virtual Stem University has three key components, namely a virtual STEM Academy to primarily serve as a resource for K-12 school districts via cyberspace; a virtual STEM college for enhancing and increasing undergraduate and graduate research by connecting students, mentors, sharing data, results, and processing power through cloud computing; and a research and development component that will connect research activities within the CSU and other interested institutions in providing a platform for entrepreneurial innovation.

With high-speed global education and research networks like CENIC, Internet2, and National Lambda Rail (NLR) connected with commodity-priced virtualization technologies, it is possible to create the virtual equivalent of MIT's New Media Lab in a cost effective and easily scalable manner. Such a Virtual STEM University would provide a sustainable cyber-infrastructure for faculty to design learning environments for their students. This learning environment would foster and stimulate student-led innovation that could focus on solutions to global issues, as well as "killer apps" for broadband networks.

Anchor tenants within the STEM virtual university would include: teaching and research universities, national labs, Calit2, (the California Institute for Telecommunications and Information Technology) and OCC (Open Cloud Consortium) and key industry partners such as Microsoft, IBM, Cisco, Google, Oracle, etc.

Critical to the success of the Virtual STEM University will be student-centered, project-based learning. This pedagogy enables peer-to-peer collabortsoftuto-teac001 T-c.