Innovation Model for the Water-Energy Nexus in Chicago

Chicago is making a play to become a leading global innovation hub for water infrastructure. Chicago has a $14 billion water industry, the 4th largest in the nation, and there are already several platforms and consortia looking to connect the 250+ water companies headquartered in Chicago with the dozens of research universities, research institutions and civic organizations that have the capabilities to collectively generate and scale solutions and new technology. Energy and water systems are tightly intertwined and thermoelectric power plants collectively generate and scale solutions and new technology. There is a huge opportunity to utilize these systems.

Energy Nexus in Chicago

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Design as a Knowledge Broker

This design strategy mobilizes knowledge flow from the outside in mobilizes organizations. The knowledge diffused outside is internalized as a strategic resource for developing incremental innovations on products, services, and functions, based on the social and cultural trends generated by users. (Bertola and Teixeira, 2003)

Innovation Districts

Innovation districts are geographic areas where leading-edge and/or incumbent companies cluster and connect with startups, business incubators and accelerators, contributing to a robust open innovation ecosystem. (Katz and Wagner, 2014)

Boutique Business Models

Boutique Business Models are the localization and support of open source software, where the software itself is free, while people pay for local support and adaptation for their needs. (Katz and Wagner, 2014)

Urbanized Science Park

Urbanized Science Park is a model for innovation districts where traditionally isolated, sparsely populated areas of innovation are urbanizing through increased density and an infusion of new activities. (Katz and Wagner, 2014)

Open Source Hardware

Open Source Hardware are physical technological artifacts wherein information about the design and construction are easily sharable, allowing for much faster replication. It is closely tied to the Maker Movement (Anderson, 2012)

The Network Information Economy

The Network Information Economy is a new stage in the information economy wherein the reduced cost of computing technology is enabling a much greater role for nonmarket information production by individuals through cooperative and coordinated action. (Benkler 2006)

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