



Carnegie Mellon University

Establishing a Government Effectiveness Advanced Research (GEAR) Center

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The Challenge

In order to be successful, the GEAR Center must enable government to quickly adapt to changing needs of citizens while improving trust, effectiveness and customer focus.

The problems governments face are hard, as they encompass people, policy and technology. They require the interdisciplinary approach native to top research universities, a deployment mindset, and an embrace of evidence.

Priority Areas of Focus

We recommend focus on **three pillars of success** for this initiative: upskilling, external engagement, and open data innovation.

Upskilling of federal workforce by attracting top talent and developing “edge” skills in existing federal workers.

Engagement with a network of multi-university and multi-agency partners to ensure that GEAR-led innovation is immediately impactful and customer connected.

Open Data Innovation to ensure that this unique and valuable asset is leveraged, with great intention, for societal value.

Upskilling Of The Federal Workforce



Upskilling the federal workforce has two components that make it a natural fit for a top university. First, attracting young talent requires early engagement. Student projects, internships and classroom lectures would excite students about the societal impacts they could make in government roles long before they make their career decisions. This is a strategy that leading private sector firms use to attract talent.

Second, current high-potential government employees can extend their technical and managerial skills by participating in distance graduate programs, onsite programs at the CMU Washington, D.C. campus and executive education courses which are delivered both in person and online. The model is proven - several forward-looking government agencies currently send employees through CMU's degree and certificate programs. Investment of this sort in your top people is critical to building a "data culture."² in the federal government and is an important retainment strategy and ultimately leads to better decisions.

². "Why Data Culture Matters. McKinsey Quarterly. Sept 2018

Partnership engagement

RD&D

Research,
Development, and
Deployment

Carnegie Mellon has had a great deal of success with research centers focused not on traditional R&D but rather Research, Development, and Deployment (RD&D). But, deployment is not natural to the culture of many universities. It requires scientists who want their work to have a visible impact and an investment in partnerships with the customers of innovation. These partners might include, in the case of the GEAR Center, government agencies that actively participate with faculty and students in designing solutions, NGO's that provide continuous input on behalf of intensive users of government services, philanthropic foundations eager to fund work with meaningful social impact and firms who can extend and commercialize the innovations. If constructed the right way, GEAR innovation will help the government run more efficiently but could also have an impact on society well beyond the government workforce.

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Open Data Innovation



A trove of government data housed at a university would be an important component of the GEAR Center and has key advantages:

Allows for rapid prototyping and exploration, at scale, in a risk-free setting.

Incorporating real cases and data into courses ensures that data will be used and not sit dormant. This also provides a natural feedback loop on additional data that would be valuable.

A university with an entrepreneurial emphasis raises likelihood that startups that use data in creative and unexpected ways will form.

Universities are accustomed to licensing and commercialization so sustainable monetization pathways are more likely.

A Template for Success: The MetroLab Network



A City + University Collaborative for Urban Innovation

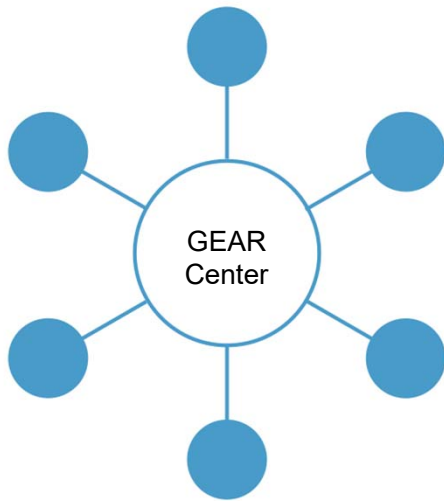
In 2015, Carnegie Mellon, the White House Office of Science and Technology Policy and MacArthur Foundation launched MetroLab Network to help cities spur innovation and adapt to technological change. Today MetroLab includes 44 cities, 5 counties and 59 universities.

The MacArthur Foundation provided seed funding to Carnegie Mellon to administer the network. Projects and best practices pollinated across the network. Foundations and corporate partners became interested and gave the network a sustainable funding model through sponsorship.

We believe both the funding and the thriving consortium structure that MetroLab demonstrates is a viable model for the GEAR Center. More importantly, MetroLab provides a proven template for university work that impacts governments in real ways everyday.

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What GEAR can learn from MetroLab Network (and other CMU research centers)



Create a “hub and spoke” model. Interest and scholarship in various facets of government effectiveness will exist in different universities. A network of universities would leverage that strength.

For administrative ease, one university should serve as incubator.

Researchers from across the university network compete for seed grants to develop, test and deploy solutions.

Government agencies also participate as members and submit projects to GEAR. These agencies get royalty-free perpetual access to GEAR solutions.

A small, rotating inter-disciplinary steering committee awards the grants.

Once success is demonstrated, corporate partners could join the network for a fee, replacing the government funding and ensuring sustainability.

Examples of Successful Public-Private Research Partnerships at Carnegie Mellon



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