In the midst of all the political gridlock in Washington, it’s easy to become cynical about the long-term competitive prospects of our nation’s economy. But shift your focus to the nation’s regions, and your outlook will change. There, leading edge universities have launched promising experiments to design and develop ecosystems — a series of overlapping, interacting, open networks — to support both startups and high growth companies. Ecosystems create value through interactions that lead to innovation. They generate “innovating networks” that speed ideas to market.

Unlike advocacy and learning networks, members of innovating networks collaborate to create shared value. These networks take time and high levels of trust to form.

There’s no doubt that we can intentionally design and develop these ecosystems. Nearly 20 years ago, I was part of a small team of civic entrepreneurs in Oklahoma City determined to
move the city forward after a decade of stagnation. We designed and built new networks to speed collaborative investments in focused areas.

Nearly 15 years ago, Ernest Andrade, a young professional working for the city of Charleston, South Carolina, began developing the Charleston Digital Corridor. For a roadmap, Ernest listened carefully to the lessons we learned in Oklahoma City. Now, Oklahoma City is held out as a model for the rest of the country and both Oklahoma City and Charleston are outperforming the nation in job growth. Both cities have moved to the top the list of cities that support entrepreneurs.

Both Oklahoma City and Charleston -- metro regions that have developed vibrant ecosystems in the past fifteen years -- have outperformed the country in job growth. We used the lessons of these two regions to guide our work in agile strategy at Purdue.

What’s the lesson? By following a few simple rules and frameworks, any city can develop the platforms needed to stimulate the formation of innovating networks. At the Purdue Center for Regional Development, we have been designing and developing the tools and frameworks to speed the development of clusters, innovating networks and ecosystems.

Here is what we are learning.

Thinking in New Ways: Change the Narrative to Promote Network Thinking

Our highly ideological national debates exact a toll: They slow down innovation. To avoid these pitfalls at the regional level, we start by reframing our competitiveness challenge. We don’t present ideas in terms of public and private sectors. Instead, we look at our economy as a market economy embedded in a broader civic economy.
In the market economy, individuals and organizations make investments that are both publicly valuable and privately profitable. In the civic economy, individuals and organizations make investments that are publicly valuable but generally not privately profitable.

While business firms dominate our market economy, our civic economy is far more diverse. It includes government, educational organizations, philanthropic foundations, and nonprofit organizations. Seen from this perspective, our competitiveness challenge involves aligning our civic economy with our market economy. That’s what building globally competitive clusters and vibrant ecosystems is all about. The work requires developing multiple innovating networks across both our market and civic economies. At this porous, flexible boundary, the real work of long range, transformational innovation takes place.

The overall productivity of both economies, working together, drives our prosperity. More important, we can see that our civic economy — far from being dead weight as some would have it — is central to our competitiveness. The flexibility and adaptability of our civic economy lies at the core of national competitive strength. (This is not a new insight. Toqueville saw this strength of the American form of democracy in the 1830’s.)

Not surprisingly, like our market economy, our civic economy is undergoing a major transformation from closed, hierarchical organizations to open, loosely joined networks. As Brian Arthur pointed out years ago, networks can lead to major new opportunities for value creation. Changing the prevailing narrative in a region involves moving the collective thinking...
from closed command-and-control, hierarchical mindsets to horizontal, more flexible, open and opportunistic thinking. It’s captured in the metaphor of the rainforest.

This move represents a big shift for many regions, especially with older industrial economies. Here, due to the industrial strength of the past, hierarchies dominated both market and civic life. So, it is not surprising that in some of these regions, the civic life is still dominated by hierarchical, risk-averse thinking. Patterns of civic interaction, reinforced by top-down, command-and-control mindsets, are narrowed by long established (but increasingly less relevant) organizational and political boundaries.

Some regions, especially in older industrial regions, suffer from the legacy of top-down thinking. These regions need new narratives of collaboration. Network thinking is neither top-down nor bottom up. There are no tops or bottoms to a network.

Changing the narrative within these regions represents an important first step. Stories of effective collaboration enable civic leaders to cross these boundaries more easily. Collaboration becomes more acceptable and more rewarded.
Here’s an example. In 2005, the University of Wisconsin at Milwaukee began a new narrative in Southeast Wisconsin by pointing to the region’s abundance of assets in freshwater technology. Out of that shifting narrative, a new cluster emerged: The Water Council. Now, the Water Council — which includes leading actors from the region’s market and civic economies — stands as a global leader in the development of freshwater technologies. Instead of being constrained by organizational and political boundaries within their region, the leaders of Milwaukee’s water cluster began linking and leveraging their assets across these boundaries.

By connecting assets, the Water Council has created new opportunities for Southeast Wisconsin.

Behaving in New Ways: Create Civic Spaces and Plant New Seeds

Shifting the regional narrative, while an important first step, is not enough to develop an ecosystem. (Otherwise, every region with “Silicon” in its name would be an innovation hot spot. They’re not.) A region that embraces innovation must also establish regular places for networks to form and people to interact. Oddly though, many regions still do not have the “civic spaces” — regular forums, meet-ups, and gatherings — where actors in the market and civic economies
interact regularly. Creating these platforms creates opportunities for connection. They constitute a new type of civic infrastructure that is essential for ecosystems to flourish. Developing these platforms is simple, but not easy. They take time and persistence.

If you glance across our regional landscape, most places are still stuck in the top-down mindset of the annual meetings, leadership summits, and “sage on the stage” panel discussions. These events pay scant attention to stimulating interaction among participants. They do little to promote the behavior needed for innovation in open, loosely joined networks.

Indeed, some places must start at a more basic level. Their civic discourse has become corrupted by patterns of bad civic behavior. To begin building an innovation ecosystem, they need first to establish clear standards of civility before any large-scale innovation in the civic economy can happen. In the open networks that characterize our civic economy and our democracy, civility plays a central role. Without it, we cannot do the complex thinking needed to innovate or dress the continuous flow of challenges we face.

To make this point, we often refer to John Madison’s notes of our Constitutional Convention. In May 1787, before any business transpired at the convention, the delegates passed rules of civility. These guidelines enabled them to conduct heated exchanges within these bounds. They provided the safe space for the delegates to design our new form of government.

Once a region establishes civic spaces, civic leaders and entrepreneurs can plant the seeds from which new networks form. These seeds take the form of engaging conversations that stimulate new collaborations. So, for example, the Penn State College of Medicine to develop its ecosystem, has launched a monthly Innovation Cafe. During the design phase, civic leaders agreed that no single organization would “own” the initiative. Instead, they wanted to create a commons, shared by all. Each month, leads of the Cafe plant seeds, consisting of both educational content and investment opportunities that draw participants into the monthly forum.

In the Charleston Digital Corridor, Ernest Andrade plants seeds at regular Fridays at the Corridor events. These sessions attract new participants and strengthen ties within the Charleston ecosystem.

**Do Strategy in New Ways: Link and Leverage with Agile Strategy**

When it comes to building a strategy for an ecosystem, our traditional linear approaches — strategic planning — just won’t do. They are too slow and costly. Instead, we can build our networks intentionally by teaching people how to collaborate quickly, move their collaborations toward measurable outcomes, and make adjustments along the way. These new strategy practices – which at Purdue we call “strategic doing” – accelerate network development in an intentional and disciplined way.

Traditional strategic planning operates from the premise that we can discover most of what we need to know through detailed analysis. The fallacy, of course, is that complex systems are unknowable in this way. No amount of analysis is complete. In addition, strategic plans
generated with long periods of data gathering and analysis are very difficult to implement. They exhaust our energy and fail to inspire participation.

Strategic doing is different. It is designed to form collaborations quickly by “linking and leveraging” our assets across the network. As we do, we also align them. Because we are dealing with complex systems that are continuously changing, strategic doing presumes that the only way forward is to learn by doing. By using simple rules to guide this process, participants in emerging networks learn the new skills of deep collaboration. By teaching these skills across a region, more networks form faster. We scale ecosystem development. In the end, regions with more innovating networks will be more competitive. They will learn faster. They will spot opportunities faster. And they will align and act faster.

Unlike the linear approach of strategic planning, strategic doing focuses on agile think/do cycles, frequent iteration, and rapid experimentation. By forming collaborations quickly, strategic doing aligns assets toward shared outcomes.

With strategic doing, we form hypotheses quickly and test our assumptions with pilot projects. Moving into action has another significant benefit: we form bonds of trust more widely and quickly. We are scaling the development of trust. By alternating periods of thinking and doing in short “time buckets” — usually 30 days — we make continuous adjustments in our strategy as we move forward.

Equally important, developing strategy in networks must rely heavily on visualizations. Because we are dealing with complex systems that we cannot see, visualizations help us align our mental models. Visualization, a key tool of design thinking, reduces confusion. Text — think of endless PowerPoints — opens the door to widely varying interpretations. In contrast, pictures
engage a different part of our brain. The more vivid our imagery, the more we are likely to become emotionally engaged in our collaborative work.

Visualizations help explain cluster development one form of innovating network that accelerates innovation and productivity in a region.

To capture the complex collaborations that characterize a vibrant innovation ecosystem, we have created a simple visualization, a strategy map that outlines the type of networks that make an ecosystem vibrant. The theory of transformation underlying the map is straightforward. It says simply:

- A vibrant ecosystem needs brainpower to power it.
- It needs support networks for innovation and entrepreneurship to convert brainpower into wealth.
- The ecosystem also needs networks to develop quality, connected places, because both talent and growing companies are mobile; they will only locate in quality, connected places where people can comfortably connect.
• A vibrant ecosystem relies on new, intentionally developed narratives to both guide participants to new opportunities and to attract new resources to the ecosystem.

• Finally, an ecosystem cannot develop without a deep pool of people with the sophisticated collaboration skills to guide and develop these new networks.

This simple strategy map helps link, leverage and align assets across an innovation ecosystem.

We do not need to leave the development of these ecosystems to chance. We have natural anchors for these ecosystems in every region of the country. For a host of reasons, colleges and universities can be leading their development:

• Colleges and universities are the major source of talent needed to power these ecosystems;
• With students, faculty, staff and alumni, they can assemble the networks needed to support startups and high growth companies;
• Their campuses, especially when they are connected to the surrounding community, provide high quality physical development to make their region “sticky” to both talent and high growth companies;
• They provide a rich source of stories — the new narratives — that can align resources and speed the development of these networks; and
• They have the convening power to bring together the different actors within the ecosystem and teach the skills of deep collaboration.

Colleges and universities can anchor innovation ecosystems. With new frameworks and practices, they can stimulate the flow of resources across the system.

That’s the path we are following. We start by teaching strategic doing. With our university partners -- including colleagues at Michigan State, the University of Alaska, Northern Illinois University, Kansas State University, Arizona State University, The University of Wisconsin-Milwaukee, the University of Missouri, and The University of Akron – we are building a network of university centers that understand and can apply agile strategy. Our immediate goal is
to teach a strategic doing certification on five campuses next year. We are targeting twenty to thirty universities in three years.

In our work with Michigan State, we have developed *Strategic Doing: The Game*. The game introduces the deep skills of collaboration quickly. By producing remarkably detailed strategies in a few hours and charting a simple path forward, *Strategic Doing: The Game* resets our shared notions of strategy. It’s no longer a deadening, endless exercise. Strategy becomes fun, fast and engaging. Interestingly, Michigan State is using this approach not to build an innovation ecosystem, but to **rebuild devastated neighborhoods in Flint**.

Finally, I’d like to thank Victor Hwang. He saw the slides I presented at the University Economic Development Association annual meeting in Pittsburgh and invited me to compose this post. (For readers interested in exploring how colleges and universities are reshaping the innovation landscape, take some time and review the finalists for the Association’s Awards of Excellence.)

Victor gave an inspired presentation, not the usual “sage on the stage”. He promoted interaction with us, and we gained new insights. To those of us engaged in this work, exploring new pathways for the **21st century research university**, his book, *The Rainforest: The Secret to Building the Next Silicon Valley*, is powerful inspiration. If you get the chance to hear him speak, take it.