In recent years, there has been a rise in the popularity of the innovation district concept, often sparked by the success of areas like Kendall Square in Cambridge and 22@Barcelona. As stated in a 2014 Brookings report[1]: “Innovation districts[2] help address three of the main challenges of our time: sluggish growth, national austerity and local fiscal challenges, rising social inequality, and extensive sprawl and continued envi¬ronmental degradation. There has been a growing belief that, with the right ingredients, these innovation districts can be created and empowered, leading to prosperity. To gain more insight in this topic, The Class conducted an interview with Julie Wagner, one of the writers of the Brookings report.

Julie Wagner
is an urban researcher and co-author of the research paper “The Rise of Innovation Districts”. She is a nonresident senior fellow at the Brookings Institution, an independent think tank based in Washington DC and President of Urban Insight. Julie also helps advance the competitiveness of cities and regions globally, including Amsterdam, Copenhagen, Milan, Silicon Valley, Sheffield, Sydney and Torino.

INTERVIEW WITH JULIE

Innovation Districts

Julie, what is it that makes innovation districts so interesting to you?

The complexity of innovation districts continues to fascinate me. They require looking at geographies through dozens of lenses - how organizations and firms innovate, how firms grow, how people can come together in ways that spur curiosity and creativity, how diverse organizations can start to change and adapt when they start working across different organizational structures, how financing can be aligned and leveraged, and how physical spaces and geographies facilitate a growing collaboration and convergence of different actors. Not only do these disparate threads need to be understood in detail, they all need to be threaded together to create a competitive strategy for increasing innovation and growing jobs. Thinking about the layers of all this together is just fascinating.

Universities can be important drivers of innovation for a district. Can you elaborate a bit more on that role?

In the vast majority of innovation districts globally, universities play a central role. They are the locus of a growing intellectual class, as most have extensive R&D portfolios that are driving innovation, and they are naturally connected globally and locally offering that important perspective to discussions. They also have an increasingly role in growing and supporting start-ups. Of course, there are clear differences across universities. Some are more entrepreneurial in nature than others, although this also depends on national policies and the extent to which they encourage or limit universities to act more entrepreneurial.

And how about students, what position do they take in the growth and existence of innovation districts?

Definitely, students can play a crucial role in the development and growth of innovation districts. And many districts are thinking through various strategies to increase their contribution. The notion of taking translational research[3] and working with PhD students and master students to advance that research is a core aspect of driving district development. Next to that, helping them connect with industry more regularly and sharpen research to reflect what industry wants or needs is a very important role they can play. And finally, students can be risk-takers by nature. By that I mean they are willing to participate in the advancement of new start-ups, which is a crucial aspect to fueling the local economy and creating jobs.

Innovative forms of living are an example of physical assets that can give an impulse to innovative districts. How do you think these typologies, like co-living, can have an impact?

Housing, including a range of innovative co-living spaces, importantly gives districts their energy past work hours. If you don’t have housing, then you don’t have a vibrant district. You have also limited your market for restaurants, amenities, and neighborhood-serving retail. I also believe that housing is just better when it is mixed into the overall landscape rather than tucked away to the side. This kind of mixing - the mixing between living and working, between different kinds of people, between different activities and uses - importantly makes districts more interesting and “city” compared to the more sterile science parks.

We often see innovation districts emerging on former industrial sites. Is there a link between the heritage buildings and innovation districts?

I believe, quite strongly, that the re-use of heritage buildings is what makes innovation districts importantly unique and special places. Many places make the mistake of building slick, shiny new buildings only to later find that their intervention has eroded the unique qualities of a street, of a block, of a neighborhood. And it’s hard to see as an observer and advisor. Developers and decision-makers are simply failing to see what is valued and desired. Let’s take start-ups: start-ups are very sensitive to the physical characteristics, layout, and “feel”. Almost by default, startups search for those heritage buildings; places with unique details, layers of designs and details, and a story. Protect those heritage buildings I argue to anyone willing to listen.

Finally, can you tell us what you think is the most exciting upcoming innovation district?

Impossible!! There is just too much interesting thinking going on. What is starting to happen, in my mind, however, is the desire on my part to pull together all the outstanding, creative pieces from various districts and create one example of a district. I wonder if it would come together as beautiful as I see in my mind’s eye, or whether all those great ideas must be importantly wrapped within a local context. But as you have asked about upcoming districts: let me give you two countries to watch: Australia and Israel.

In order to untangle the complexity, the ingredients for an innovation district are divided into economic, physical, and networking assets. When these three assets combine with a supportive, risk-taking culture they create an innovation ecosystem

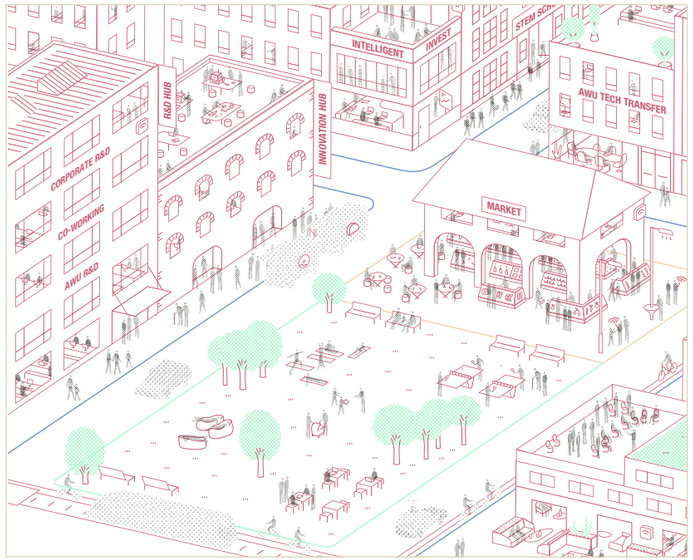
THE INGREDIENTS

That these districts are complex, also stems from the report: given the vast distinctions in regional economies, the stakeholders, form and function of innovation districts differ per region as well. In order to untangle the complexity, the ingredients for an innovation district are divided into economic, physical, and networking assets. When these three assets combine with a supportive, risk-taking culture they create an innovation ecosystem - a synergistic relationship between people, firms and place (the physical geography of the district) that facilitates idea generation and accelerates commercialization.

Economic assets are the firms, institutions and organizations that drive, cultivate or support an innovation-rich environment. Economic assets can be separated into three categories:
- Innovation drivers: research and medical institutions, large firms, SME's, start-ups, and entrepreneurs.
- Innovation cultivators**:** the companies, organizations, or groups that support the growth of individuals, firms, and their ideas. They include incubators, accelerators, and shared working spaces.
- Neighborhood-building amenities: these amenities provide important services to residents and workers in the district, and activate the streets and public spaces, inviting a mix of people to shop, browse, and mingle.

Physical assets are the public and privately-owned spaces - buildings, open spaces, streets and other infrastructure - designed and organized to stimulate new and higher levels of connectivity, collaboration and innovation. Next to public and private assets, there is a third category: physical assets that knit the district together and/ or tie it to the broader metropolis.

Finally, **networking assets** are the relationships between actors - such as individuals, firms and institutions - that have the potential to generate, sharpen and accelerate the advancement of ideas.



This illustration depicts the concentration of economic, physical,and networking assets within one node of an innovation district - the size of a full city block. While a district commonly rangesin size between 300 acres and 1,000Tacres,creating a critical mass at specific nodes or a key corridor, which then extends over time and space, is proving to be a smart and successful strategy.

[1] Brookings, 2014, The Rise of Innovation Districts: A New Geography of Innovation in America

[2] Definition: Innovation districts are geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators.

[3] Translational research: research with market value

[4] Wagner et al. 2017, Twelve principles guiding innovation districts

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GUIDELINES

Next to the protection of heritage buildings, there are 12 guidelines[4] that Julie and others draw up that help to grow and evolve innovation districts. These guidelines are summarized below.

1. The clustering of innovativesectors and research strengths is the backbone of innovation districts. This is what makes districts thrive, rather than government attempting to pick industry winners or developers focusing on a real estate play.

2. For innovation districts, convergence - the melding of disparate sectors and disciplines - is king. District stakeholders need to build horizontal platforms to connect seemingly dissimilar industries through collaborative research, conversation, and cross-cutting technologies.

3. Districts are supercharged by a diversity of institutions, companies, and start-ups. Districts that are largely comprised of large institutions often lack the accelerated innovative growth that small, nimble firms provide. And districts characterized by a density of start-ups have fewer opportunities for well-funded partnerships and alliances.

4. Connectivity and proximity are the underpinnings of strong district ecosystems. The experience of proximity - or a physical concentration of firms, workers, and activities - is what differentiates a "buzzing" district from a boring one.

5. Innovation districts need a range of strategies - large and small moves, long-term and immediate. These approaches are complimentary: Large-scale investments set the foundation upon which other activities can be layered.

6. Programming is paramount. Programming - a range of activities to grow skills, strengthen firms, and build networks - is the connective tissue of a district.

7. Social interactions between workers - essential to collaboration, learning, and inspiration - occur in concentrated "hot spots". A handful of social hot spots in a district will likely punch far above their weight in terms of building community.

8. Make innovation visible and public. Daylighting innovation in public and private spaces helps inspire curiosity in aspiring innovators, start conversations between neighbors, and convey the story of an innovation district to potential recruits or investors.

9. Embed the values of diversity and inclusion in all visions, goals, and strategies. It is only through intentional training, hiring, business development, and placemaking efforts that districts can cultivate new local talent and encourage more diverse ownership structures.

10. Get ahead of affordability issues, as successful districts can, over time, drive up market pressures, impacting the ability of start-ups, maturing firms, and neighboring residents to remain in these areas.

11. Innovative finance is fundamental to catalyzing growth. Most innovation districts require new finance streams to advance innovative and inclusive growth without straining existing and limited resources.

12. Long-term success demands a collaborative approach to governance. A bottom-up horizontal governance model - involving business, academic and civic institutions, government, workers, and residents - can best orchestrate what must be done collectively.