Why Innovation Districts are the new catalyst for international business development

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Strategic Analysis by Bert-Jan Woertman

For the past 50 years, many cities across the globe have described their dream of creating the next "Silicon Valley". Yet no-one has succeeded. That's because the valley is not just a collection of buildings, companies and institutions.

It's a unique ecosystem, with a history deeply embedded in the development of breakthrough technologies for the US Department of Defense (Steve Blank has an excellent talk (http://steveblank.com/secret-history/) on this, by the way). Our experience in the South-Eastern part of the Netherlands is that networks and local ecosystems can never be copied nor can they be easily established. It takes a lot of time and constant effort to build an ecosystem. That's because open collaboration does not mean that everything is in the public domain. It means working intensively together within trusted networks. And once the network is established, the power is in the way it is shared. Let me explain why this is proving to be a winning strategy. And what we've decided to do next. We're starting a global partnership to prove collaborative innovation works.

At High Tech Campus Eindhoven, we realised over a decade ago that we had to build our own vision for growth. The campus has expanded organically since privatization in 2003, growing from 4000 to 10,000 people, with no end to growth in sight. And we've earned the reputation of being "the smartest square kilometre in Europe". Yet, that's no reason for us to be complacent. In order to retain our edge, we're continually analysing the conditions that encourage world-class innovation. Yes, building design and top-quality test facilities are important. But understanding the local social dynamics are proving essential too.

Benchmarking the Best

We've been encouraged by new evidence that this "collaborative innovation" is proving to be very successful elsewhere, especially in North America. The results are contained in a comprehensive report just released called "The Rise of Innovation Districts (https://app.hubspot.com/viewfile.php/759?

hstc=209617549.204a8cb30b4dd29540fc754e620ec773.1548264906681.1548264906681.18 hssc=209617549.1.1548264906681.8 hsfp=3754288862)". It has been written by Bruce Katz and Julie Wagner of the Brookings Institution. Based in Washington DC, Brookings is one of the world's leading private independent research organisations, studying innovative policy solutions. We've been delighted to discover that these eminent researchers have spotted and validated several innovative ideas that we've been experimenting with. It helps us to benchmark the methods we've put into practice in Eindhoven as well as learn from the experiences of others. We've examined how and why we compare favourably alongside the other great innovation districts that are rising out of industrial centres and research parks. It's always an honour to be mentioned in the same breath as Atlanta, Buffalo, Brooklyn, Cambridge, Houston, Philadelphia and San Diego. But we remain conscious that we can always improve.

Why Innovation Districts Matter Today

The Brookings researchers draw several conclusions as to why this new type of ecosystem is important. The geography of innovation is definitely changing. Three emerging trends in the report caught my eye, as the authors describe in their Fortune Magazine (http://fortune.com/2014/06/13/where-the-american-startup-dream-is-moving-downtown/) article.

"First, firms want to be part of the dense innovation ecosystems that surround research institutions and medical centres. Research and development is no longer exclusively situated in closed-off corporate campuses. Companies are pursuing the benefits of knowledge spill-overs, which have been found to be significant at distances of less than one-quarter mile. The decision, for example, by pharmaceuticals giant Pfizer to build a new facility near MIT in Cambridge or by Google to open up a major satellite office in Pittsburgh near Carnegie Mellon demonstrates that research-intensive companies are now eager to locate near institutions and talent with complementary ideas and expertise. Locating 30 miles along a highway cuts off access to the very fuel that drives success today."

"Second, smaller startup companies and entrepreneurs seek to reduce risks and share capital-intensive costs, attracting them to dense and collaborative environments. The myth of American startups is that grand ideas are hatched in the garages of inventors and then taken to market. Increasingly, entrepreneurs are flocking to collaborative spaces. At these hubs, entrepreneurs can mingle with other inventors; have efficient access to legal advice, business mentoring and venture capital and, especially in the case of life-science companies, share lab space and expensive equipment."

"Finally, companies need to be near talent, and, now more than ever, talented workers want to live in cities. For millennials in particular, "quality of life" increasingly means proximity to urban amenities such as restaurants, retail, cultural, and social venues. According to economist Joseph Cortright, between 2000 and 2009, the number of 25- to 34-year olds with college degrees living in neighbourhoods near the central business districts in the nation's 51 largest metropolitan areas increased by 26 percent, double the growth rate of college educated young adults in the rest of the metropolitan area."

From Suburban to Urban

Brookings authors Bruce Katz and Julie Wagner define Innovative Districts as "geographic areas where leading-edge research universities and companies cluster together. In doing so, they make it easier for them to connect with start-ups, business incubators, and accelerators. This network is proving to have a huge value." At High Tech Campus Eindhoven we're fond of pointing out that 125 companies are accessible within 5 minutes walking distance of each other. We've always known it was advantageous to create a productive, trusted ecosystem. But Katz and Wagner have shown that the proximity effect is more important and much closer than most of us realized.

"Recent research conducted by Gerald Carlino and Robert Hunt found the clustering of R&D labs to be by far the "most significant" at very small spatial scales. They also discovered the clustering effect to quickly dissipate with distance, concluding knowledge spill-overs to be "highly localized."

"Isaac Kohane and several colleagues at Harvard Medical School found that even working in the same building on an academic medical campus makes a difference for scientific breakthroughs; "Otherwise, it's really out of sight, out of mind."

"As the role of these innovative industries and occupations has grown in size and importance, so has the value of density and agglomeration. The benefits of clustering that produced industrial districts which led to science parks, are intensifying in ways that we are just beginning to understand".

"As Business Week observed in June 2009, "The trend is to nurture living, breathing communities rather than sterile remote, compounds of research silos."

They each have different avenues for growth, with some leading with new fields like "tech/information" (including the burgeoning "app economy"), while we've chosen to lead in health-tech, renewable energy, and smart environments.

Proximity is key to Networking Quality

We're continually gathering more and more evidence at High Tech Campus Eindhoven that supports these observations from elsewhere. "Inspiring Location" was the most important deciding factor for the foreign startups that joined the recent successful Startupbootcamp. (http://www.hightechxl.com/) HighTechXL hardware accelerator program. Everyone involved with these young companies witnessed how quickly two-way networks were built up. On the one hand, established companies want (and need) to be inspired with new approaches. In return, they're willing to mentor young entrepreneurs to share their global network as well as their "lessons learned". It's a clear win-win once trust has been established. And, with rising research costs, everyone profits by shared technical spaces. Often, collaboration is the only way for smaller companies to get access to expensive test and measurement technologies.

Connecting Our Innovation District To Others Nearby

We recognise that High Tech Campus Eindhoven is part of a larger innovative metropolis. That explains why we attach such high importance to jointly organising hundreds of events each year with other partners. All have to be "within bike riding distance" to keep the cross fertilization of ideas and know-how between creatives, scientists and engineers. That includes free, walk-in Friday Afternoon Innovation lectures, open to the public. We've also started organising informal dinners to connect creatives with high tech entrepreneurs and researchers from Eindhoven University of Technology and Design Academy Eindhoven. From the feedback we see, when you take an active approach, only then does the magic really happens. It takes what we light-heartedly call "Managed Serendipity" to ensure that unexpected connections are made and sustained.

Being part of the Local Urban Fabric

In the last decade, Eindhoven has grown into an international showcase of urban renewal. With the closure of several large factories in the heart of the city around 20 years ago, the city authorities have been gradually revitalizing whole neighbourhoods. This involves completely rethinking the city centre, finding new purposes for these buildings from another age. It also means understanding what makes communities thrive. The Strijp-S (http://www.strijp-s.com/) complex, once the largest radio factory in the world, is now home to active collaborative spaces for artists, architects and a range of creative companies. It's combined with shops, restaurants and 500 "affordable" apartments to suit individuals and families.

Success always needs nurturing

Our experience in Eindhoven is that you need to try a mix of activities and continually measure what people think. There is no single magic success formula. What worked three years ago is no guarantee for tomorrow. And there is no single culture. Different networks form, depending on the context. Is it a trusted close network with five colleagues working in the next building? Or is it a brief encounter with three local entrepreneurs you made by attending a deep-dive thematic conference on campus together with 120 others. Variety in the style, topic and form of organised activities is often underestimated by the high-tech sector. There is always a tendency to get trapped by your own routine. The <u>video summary of the Brookings report (http://youtu.be/uJ6BFm3hra8</u>) is now on YouTube.

Triple Helix is definitely the way forward

Last, but not least, local leaders in our region have been interested to see validation of the so-called "Triple Helix" approach. This consists of structured interactions between industry, research institutions and government.

"An important share of innovation district leaders found the Triple Helix model of governance to be foundational to their success. Collectively, they design long-range visions and create new vehicles for innovation, such as research centres and incubators. In the case of 22@Barcelona, St. Louis, Kista Science City (Sweden), and Eindhoven (Netherlands), the Triple Helix model established a clear organizational model of collaboration from the start. Further, Eindhoven and St. Louis are finding real success in a leadership model that includes a powerful development agency to execute strategies."

"Practitioners cited the valuable role of one person, a team of people, or designated entity serving as a "catalyst," an "integrator, or a "facilitator" throughout the process. This was found to be true even in cases using the Triple Helix model.

For the Triple Helix to work, you need "active facilitators" with a helicopter view on on the bigger picture. They need strong negotiating skills to build a rapid consensus and keep the collaboration efforts moving along. Fortunately, we've seen that leadership talent grow in organisations such as Eindhoven University of Technology, Strijp-S, Automotive Campus in Helmond, High Tech Campus Eindhoven and Brainport, the regional development agency. Each needs to provide its "home grown champions" to build the productive team spirit. It may take time and several "learn-do-learn" projects to build the trust. But when once that's established, it really works!

Next Steps: Building Network Bridges between Innovation Districts

The report concludes with excellent strategies for everyone to consider in planning a successful future. The lessons learned are crystal clear:

"In short, Innovation districts represent a clear path forward for cities and metropolitan areas. Local decision makers—elected officials and heads of large and small companies, local universities, philanthropies, community colleges, neighbourhood councils and business chambers—would be wise to unleash them."

We agree, but we also see that someone has to make a first move. So here goes. We see huge win-win benefits emerging if Innovation Districts were to work more in global partnerships. It is working for other sectors, so why not for ours? That's why we launching an open invitation to managers and development managers from other Innovation Districts to strike up a conversation. We have start-ups and spinoffs looking to expand their global networks in several high-tech areas of the world. They could accelerate their product development and time to market by tapping into the local ecosystems set up in your Innovation Districts. In return, we believe we have a lot to offer both young high-tech companies and established corporates from the USA and Canada. They might be looking to expand into a global market through Western Europe, or tap into the high-tech knowledge that we have in our Innovation District.

We're ready to offer qualifying companies two months of free office space on High Tech Campus Eindhoven. We want to make it easier to explore what's possible within our high-tech network of 10,000 people, working in the fastest growing region in the Netherlands. We look forward to collaborating, because together we really can stand on the shoulders of giants. And get a better view far across the valley!

For more regular insights into innovation on High Tech Campus Eindhoven, sign-up for our free Newsletter(http://www.hightechcampus.com/news). Or com/news). Or com/news)

Limited time? Read the <u>Summary (https://app.hubspot.com/viewfile.php/758?</u>

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"The Rise of Innovation Districts"



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