## Innovation District Development in Dutch practice

an exploration on the role of the built environment with recommendations on role-taking by local public authorities in innovation district development: the Case of the Merwe-Vierhavens & RDM – as part of the CityPorts project.

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## 9. REFLECTION

This reflection provides an evaluation on the graduation thesis (product), the choice of methods, argumentation and chosen approach (process) while placing the work done in time (planning), and reflecting on the learning objectives formulated in the P2 rapport (personal).

The relationship between the graduation lab and the subject & case study chosen; this research has taken place in the lab 'Sustainable Private Sector-led Urban Development'. According Heurkens (2012) new types of private-private and public-private interactions and collaborations seems to be a requisite to reach truly sustainable solutions in the existing built environment. When it comes to sustainable private sector-led urban development projects – projects in which private actors take a leading role and public actors adopt a facilitating role, in managing the delivery of an economic-viable, social-responsible and environmental-friendly urban development project – a lot of insights are still missing. To add to that, in Dutch urban development practice the emphasis is shifting towards incremental development processes and private sector-led developments. There is limited scientific and practical understanding about how public and private actors cooperate within private sector-led urban development projects and what the effects of their interactions are. So, more attention towards aligning theory and practice is needed. Therefore, to contribute to the scientific and practical understanding on how public and private actors cooperate, this research has built a deeper understanding on the CityPorts alliance, in which the port authority can be seen as a private actor, collaborating with the municipality of Rotterdam in redeveloping the inner-city ports of the city.

The relationship between the graduation lab and the chosen methods; the object of study concerns the concept of Innovation Districts. This urban policy is seen as an early trend that, had received little scientific analysis yet and was mainly known for international best practices (Katz & Wagner, 2014). Thus, to provide an understanding on innovation districts as urban area development projects, an indepth case analysis on the Rotterdam Innovation District was chosen. The initial idea was to conduct a comparative case study and compare the development approach and project outcome behind best practices as the 22@Barcelona and the Boston Seaport project – cases I pre-selected based on available documentation, proven (economic) success, and development stage. In addition, a case from Dutch practice was added; the Central Innovation District of Den Hague based on practical and locational considerations – concerning language, access, proximity, same region, corresponding actors. While exploring the research topic I learned how context-specific these developments are and decided to produce new forms of understanding and practical knowledge on innovation districts through a single indepth case study design. In this way a deeper understanding was built on a single innovation district initiative and the local planning processes in which the project is embedded.

'Innovation Districts have the unique potential during this pivotal post-recession period to spur productive, inclusive, and sustainable economic development. They 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 environmental degradation.'

(Katz & Wagner, 2014)

The relationship between the project and the wider social context; 'stimulating innovation has been a topic widely investigated in the fields of management, policy, economic geography and regional studies, because it is critical for maintaining competitive advantage of organisations and nations' (Curvelo Magdaniel, 2016). Besides, innovation districts are seen as a way to strengthen the innovative capacity of cities and regions. Therefore this study builds an understanding on how cities may agglomerate knowledge-intensive activities to modernize their economies; how they can play a catalytic role in enabling and growing innovation districts; and which carefully planned interventions are needed to do so.

The relationship between theoretical and empirical research; providing an understanding on innovation districts as urban development projects brings many challenges due to the fact that innovation districts are mainly analysed from an economic geographical perspective and became a popular concept in spatial planning. These areas are emerging in a wide variety of distinctive types; deal with the complexity of facilitating and stimulating (open) innovation; and combine many different urban theories ranging from Marshall's ideas on the industrial district (Marshall, 1920) to Chesbrough's theory on the improvement of internal and external innovation (Chesbrough & Crowther, 2006). In addition, the concept of innovation districts includes the ideas of Florida on the role of the creative class (Florida R., 2002); Jacobs' urban theories on mixed-use within the city (Jacobs, 1969); Porter's cluster theory on economic competitiveness (Porter, 2000); and Leydesdorff and Etzkowitz's triple helix and quadruple helix model on the dynamics of innovation (Etzkowitz, 2008).

Academic research on innovation districts undertaken by Katz & Wagner (2014) and Morrison (2015) are both driven by research on knowledge-intensive milieus (Link & Scott, 2006; van Winden, 2011); a changing society, economy and city (Jabobs, 1969; Florida, 2002; Hall, 2004; Castells, 2011; Simmie, 2013); city development and urban competitiveness (Clark, 2010; Glaeser, 2011; Porter; 2011) and the geography of innovation (Audretsch, 1998; Leydesdorff & Etzkowitz, 2003; Chesbrough, 2006). Besides that, recent empirical studies conducted by the Urban Land Institute and the Dutch Environmental Assessment Agency (PBL) in collaboration with Ruimtevolk on innovative environments and best practices in Dutch and International context, provide lessons for cities that want to develop innovative environments like innovation districts (Clark, Moonen, & Peek, 2016; Lekkerkerker & Raspe, 2016).

In this respect, this exploration has combined several concept from theory that derived from different fields of research to build knowledge complementary to existing research in the field if urban management.

Process evaluation; when I started my graduation research in February 2016 my internship at the Port of Rotterdam Authority continued and I gained the opportunity to work on my thesis parallel to gaining practical knowledge on the redevelopment of the Merwe-Vierhavens. I learned a lot and it gave me lots of pleasure. Parallel to this, I participated in several committees and inspiring electives besides my side job in Delft. Long story short, I overestimated the time available and the difficulty of putting it all together. This affected the duration of my master thesis and became apparent after my P2. Because, although I had a strong vision on what I wanted to investigate in terms of topic and angle, I was lacking focus in my research in terms of depth, essence, and demarcation. My internship got extended twice and balancing practice (internship) and research (study) became a big challenge because I liked working better than finalizing my graduation project. I struggled with the idea of delivering a research that was eye-opening, pioneering, or at least interesting for the company I work for but also delivering a proper academic research meeting the standards of my professors, within the time I freed for it. Important lessons learned along the way 1) prepare counselling moments properly; 2) make smart use of the knowledge and expertise of your professors; 3) dare to share preliminary work during the process; it can enrich your research and provide new perspectives; 4) define the problem, goals, research questions as clear as possible, to help structuring and narrow down your research; and 5) don't forget that learning should besides meaningful be fun!

**Achievement levels;** within the Graduation Laboratory MBE course book (Department of MBE, 2016) several achievement levels are mentioned. Based on these achievement levels I formulated 3 personal learning objectives at the beginning of this graduation project.

Quality within requirements and preconditions: 'I would love to gain more knowledge about the relationship between people and the built environment to understand their objectives, needs, standards and wishes and translate their requirements into measurable qualities and manageable factors.'

This research topic in relation to my internship position gave me the opportunity to get to know more about urban development practice to provide a critical reflection. Besides, the final synthesis allowed me to conceptualize findings into manageable factors.

Markets, actors, processes and procedures: 'Understanding the position and roles of various stakeholders; the decision-making processes and procedures in development projects; and risk and ownership allocation, in combination with insights into management measures deployable in urban area development projects that can help to realise projects as envisioned.'

These research gave me a better understanding on urban development projects and helped building theory on specific and decisive development dynamics in relation to roles, strategies and project outcome of a particular large-scale and complex contemporary urban redevelopment project.

Academic contribution: 'The ability to make an inspiring contribution at an academic level in the domain of Urban Development Management.'

This was an important goal at the beginning of this graduation thesis. Along the way this ambition was given up a bit due to the fact that I didn't take enough time to execute the project as I envisioned. Nevertheless, I am pleased with the final outcome through the knowledge that was built along the project, visualized and described as presented in this thesis.