SPATIAL HYBRIDIZATION AND ITS IMPLICATIONS ON HOUSING IN BRUSSELS AND AMSTERDAM

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Abstract
This paper aims to address the effects of labour market mutations on housing through an analysis of "spatial hybridization", focusing on the qualitative comparison of Brussels and Amsterdam. The objective is to provide first elements of context, methodology and results of a wider on-going research. In the first section, we highlight underlying trends, in particular the emergence of NWoW in a context of new economy, and current issues on the housing market (flexibilisation, commodification, gentrification). Then, we discuss the relevance of applying path dependence in our research, before presenting our two case-study cities from a historical perspective and pointing out innovative practices and the current public discourse. Finally, we discuss differences and similarities through four elements of comparison: functional mix at the block level, service-oriented housing, economic and housing paths. The discussion is based on our literature review, early policy analysis and interviews with key-stakeholders.

Keywords: Labour Market, Spatial hybridization, Path dependence, Brussels, Amsterdam

Problem statement

This paper aims to address the effects of labour market mutations on housing through the analysis of "spatial hybridization", focusing on the qualitative comparison of Brussels and Amsterdam. In this section, we sketch the global context having led to "spatial hybridization", i.e. the return or at least the reinforcement of the urban functional mix, and more specifically, the blurring between working and living activities. This comeback of work in the dwelling space is natural and the loosening of this link with the industrial revolution may be seen as temporary (e.g. Broadbent, 2011; L. Mumford in Madden and Marcuse, 2016).

The labour market has been directly impacted by the emergence of ICT's, being progressively delocalised and desynchronised (Wajcman et al, 2010). Furthermore, the deregulation of the labour process, the labour value shift, and the evolution of relationships between workers have led to the development of "mobile work" and the so-called "New Ways of Working" or NWoW (Craipeau, 2010). Today, several ways of teleworking have been identified: homeworking, highly mobile telework, occasional telework, …(Eurofound, 2017). In particular, the Netherlands is the third country where telework is the most used, while in Belgium almost one in five employees are using at least one way of teleworking. The two countries are also above the EU average regarding the share of employees working from home (Eurostat, 2015 in Eurofound, 2017). Messenger (2016) categorizes it in a chronological order through three generations, from *Home Office* to *Mobile* and *Virtual Office*. Those emerged from new ICT's and were driven more recently by the *Digital Nomad,* highly mobile and virtually connected. The spatial implications of NWoW have been observed since the 1980's in the Corporate Real Estate with the development of the so-called shared "Activity-Based Workplace" (e.g. Brunia et al, 2016 ; Van Meel and Vos, 2001).

Besides the numerous benefits of flexible work in terms of autonomy, creativity, and innovation, a new form of precarity has been emerging, with flexible contracts, self-employed starters with very low income, etc. These new actors of the knowledge economy, mostly part of the so-called “Creative class” (Florida, 2002), are appearing in a context of increasing entrepreneurialism. Florida (2017) has linked the back-to-the-city movement to new urban challenges, including housing affordability and access to housing for middle-income households. This is a strong issue worldwide, and the precarization of the labour market has necessarily repercussions on housing as well, as housing has always been depending on the economy (Madden and Marcuse, 2016).

The progressive transfer of labour market precarity to housing through the development of flexible housing is concerning. This precarization has been observed in several European countries, including the United Kingdom. There, the effects of temporary property guardianship, a “new form of insecure urban dwelling” have been affecting young individuals, typically university-educated and highly skilled, but in precarious employment. Precarity in our cities is normalized through the development of “permanent temporariness” among new housing practices, contributing to urban precarity. Recent concepts in sociology, including *“double precarity,* marked by insecure employment and insecure housing”, are going that way (Ferreri et al, 2016).

Another fundamental issue is the commodification and neo-liberalization of housing, which could be observed mostly in global cities with high market pressure (Kadi and Ronald, 2014). Massive privatisation of the non-profit housing sector has been observed for the last 25 years in Eastern Europe, while Western countries, including the Netherlands, have seen the same sector increasing towards market orientation (Nieboer and Gruis, 2016).

The shift from the Fordist manufacturing-oriented economy to a service-oriented economy at the end of the 1970’s, led to the creation of new employment opportunities in the service sector in Northwest-European metropolitan regions, especially after the economic crisis in the 1990’s (Bontje, 2004). This wider shift to a service-oriented society matches with household evolution and the increase of smaller households, urban and particularly outdoor-oriented, with space requirements and proximity to services fitting their composition (Boterman and Musterd, 2012).

In this context, spatial hybridization has been operating at different scales, from housing units to macro scale, leading to a more polycentric urban development and creating new dynamics (e.g. Bontje, 2004). We could notice this trend in the strategic plans of our two case-study cities and see that the implementation of functional mix can be challenged by current regulations, e.g. at the level of the land market. However, we’ve decided to focus so far on the building scale and the block of buildings. These intermediary scales allow us to investigate in-depth effects that wouldn’t be reflected either.

At the building scale, there is a rising trend to service-oriented housing, equipped with shared spaces, allowing to build very small dwellings, rather rented than for sale. This can fall within a wider concept of alternative housing, such as co-living, co-housing, or co-production, which are still niche markets. At present, common spaces in traditional housing production are mostly used for laundries or community halls. Although workspace is not the first function taken out from the dwelling in the mainstream production, it is observable in original concepts related to niche markets.

At the block scale, there is a rising trend to functional mix, both horizontally (adjacent buildings) and vertically (e.g. non-residential ground floor). The development of such projects and their location is clearly promoted by public institutions who wish to provide all the facilities and amenities needed by the young professionals that they try to catch in these developments. Space provided include workplace, from small company offices to co-working spaces, or even small industries. We call that kind of projects “hybrid development”.

Research question

The global question underlying this paper can be stated as follows: "How can Institutions regulate hybrid developments to ensure both affordable and service-oriented housing?"

From there, two subsets of questions can be expressed: "How do Institutions deal with innovative practices in housing? How do they try to forecast structural society changes?" and "How does this approach result in terms of spatial planning?"

By "innovative practices", we consider the trend of bringing together working and living activities, leading to spatial hybridization of housing. We thus focus on practices in terms of uses and space. We do not consider innovation of the housing production process such as co-production and co-housing initiatives, even if some developments may be characterized by spatial hybridity as well. Alternative housing is subject to specific research and is not part of this project at the moment.

Methodology

Choosing the right method: comparative research and path dependence

The research questions are addressed through a comparative analysis of two Northern European cities, Brussels and Amsterdam. Though commonly used in housing research, choosing an appropriate approach to compare cities remains not so easy. Lawson et al (2008) synthetize the main methods used in the last decades in this field and recall the definition and benefits of comparative research. Comparing housing systems allows crossing national boundaries, but is relevant only if purpose, territory and scale are clearly defined. This method can be of great interest to " understand, explain, evaluate or change housing phenomena" and can be underlined by the wish to understand how a housing market operates in a wider context or to build new theoretical concepts (Lawson et al, 2008). In our case, we wish to better understand the housing market in our two cities in order to conceptualize spatial hybridization of housing due to labour market mutations from observations in the field. Different theories and discourses have been built, including path dependence and institutional layering.

We will thus consider path dependence as the underlying theory of this paper. This method consists of a historical analysis of local regimes, considering causal processes. It has been used in historical sociology with the contributions of several authors, including J. Mahoney and P. Pierson. Sewell basically defined the concept as follows: "what has happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time" (Sewell, 1996 in Mahoney, 2000). More specifically, a path-dependent analysis is built on three features: (i) highly sensitive causal processes, (ii) early contingent events which outcomes are not determined by initial conditions, and (iii) further sequences of events with deterministic properties ("self-reinforcing sequences"). As pointed out by Bengtsson and Ruoanavaara (2010), this general but strong definition is difficult to apply to social action, and extensively to housing policy.

Pierson (2000) added the dynamic of "increasing returns" to the previous concept, defining it as "self-reinforcing or positive feedback processes", initially developed by economists: "…national economic systems are highly path dependent. They are likely to exhibit substantial resilience, even in the context of major exogenous shocks, such as recent changes in the global economy" (Pierson, 2000). This confirms the relevance of path dependence in our case, recent economic mutations constituting the starting point of our research question.

Applied to urban planning, path dependence has been used by several authors, such as Wilson and Dearden (2011) to determine the evolution of real estate developments in London. Tasan-Kok (2015) used this theory to analyse the hybrid neo-liberal urban transformation of an Istanbul' neighbourhood.

Terhorst and Van de Ven (2001) compared Brussels and Amsterdam with respect to the geographical structure of the state and their urban trajectory.

In the field of housing, Bengtsson and Ruoanavaara (2010) highlight the interest of using path dependence to analyse housing institutions and policy, especially regarding three features: (i) when considering housing as an asset, both stock and demand are influenced by historical heritage and social context, and have institutional implications; (ii) if assuming housing policy as bringing correctives to the housing market, the state intervention can be viewed as determining economic and institutional settings of market contracts ; (iii) the fact that housing must be distributed can constitute a constraint to political change, resulting in the inertia of social housing policies. As previously mentioned, the authors consider a wider definition than Mahoney (2000), defining path dependence as "a historical pattern where a certain outcome can be traced back to a particular set of events on the basis of empirical observation guided by some social theory". They also point out three mechanisms set up in the literature, falling within efficiency (coordinating capacity of institutions), legitimacy (perceived by political actors and/or the society) and power relations. Finally, they highlight three central elements in path dependence analysis: (i) the choice of the historical path, (ii) the decision-making process and (iii) the mechanisms explaining the effects of initial events chosen on this process.

Moreover, De Decker (1990; 2008) has contributed significantly to housing policy analysis in Belgium. He used path dependence analysis to understand why both urban sprawl and homeownership are so deeply embedded in this country.

Our objective is to apply path dependence in our research to understand and conceptualize the progressive spatial hybridization of housing. We assume that this phenomenon is deeply related to the social, economic, cultural and institutional context, both at global and local scales. It means that the general trends exposed in the previous section are influencing both Brussels and Amsterdam, but will be translated in a slightly different way under the influence of each local context. So far, the question of hybridity has been seemingly more studied on the side of housing provision (e.g. Lee and Ronald, 2012) or social enterprise (e.g. Mullins et al, 2012).

Initiating a qualitative analysis in Brussels and Amsterdam

Our research material is based on key-documents collected for each city, giving us additional information on the legal framework as well as the planning and housing strategies for the coming years (Tables 1 and 2). These documents will contribute to the local policy analysis.

We also realized early (semi-structured) interviews with key-stakeholders (Tables 3 and 4) to understand, in a fast and efficient way, the local context, the current issues w.r.t. housing production, market and urban dynamics. Moreover, we could list several contacts to meet and potential case-studies to investigate during the next steps of this research.

We have started to code both early interviews and key-documents, to establish a diagnosis and a corresponding strategy in each city, depending on its specific characteristics, challenges, legal framework, etc. This should allow us to build the skeleton of our qualitative research, divided in two parts. First, the diagnosis will consist of a first feedback from the field (based on interviews) as well as observations, facts and current regulation (based on documents and policy analysis). Then, we will be able to highlight trends, issues and parameters. Second, the strategy will be identified by analysing the planning documents, informing us on the ambitions and the global vision of local Institutions. This will allow us to point out differences and similarities between the two cities.

In the next steps, this work will contribute to build a grounded theory and observe the implementation of the local strategy through case-study projects chosen according to criteria set up from the theoretical framework. Our final objective is to identify and analyse the effects produced on determined elements (e.g. uses, housing and corporate real estate markets).

Brussels	Document(s)	Key-information
Legislation	A. R. Charges d'Urbanisme	Urban planning rules for private developments
Global and local plans	PRAS, PRDD, PPAS of "Biestebroeck"	Identification of functional mixed areas Strategy of a new mixed-area (potential case-study)
Regulation	RRU	Regulation of the dwelling size

Table 1: Key-documents collected for Brussels

Amsterdam	Document(s)	Key-information
Global plans	Kansrijke woningbouw locaties, Strategisch plan 2016-2020	Identification of working-living areas
Regulation	Bouwbesluit 2012	Building regulation, including of the dwelling size
"Inspiration" reports	11 Stories x 2025, the future of Urban living	Vision Inspiration sources
Strategy reports: Global, Urban, Economic, Housing	Structuurvisie Amsterdam 2040, Koers 2025, Ruime voor de Economie van morgen, Woonagenda 2025, Woonvisie 2020, …	Global strategy and ambitions on the long term Structure of the economy and vision Vision for housing production and public housing
Procedures	Plaberum 2017	Implementation process
Working documents	Werkprogramma Ruimte voor de stad 2017	Implementation stage

Table 2: Key-documents collected for Amsterdam

Brussels	Sector	Activity	N. Interviewees	Follow-up
Expert	Academic	Professor / researcher	3	Note-taking
Public provider	Public	Developer	3	Note-taking
Private provider	Private	Developer	4	Note-taking
Strategic Planner	Public	Institution	3	Note-taking
Non-profit provider	Public	Association	1	Note-taking
Designer	Private	Architect	1	Note-taking
Private sector lobby	Private	Association	1	Note-taking
Local power	Public	Regional government	1	Note-taking
Economy facilitator	Public	Economic growth	1	Note-taking

Table 3: List of early interviewees in Brussels (Total: 18)

Amsterdam	Sector	Activity	N. Interviewees	Follow-up
Expert	Academic	Professor / researcher	6	Note-taking (5) Record (1)
Strategic Planner	Public	Institution	4	Record
Renovation lobby	Private	Association	1	Record
Investor	Private	Finance	1	Record
Non-profit sector lobby	Public	Association	1	Record

Table 4: List of early interviewees in Amsterdam (Total: 13)

Case-studies: introducing Brussels and Amsterdam

Brussels

To depict Brussels' housing market, we used the contributions of Pascal De Decker (1990; 2008), Patrick Deboosere (2010), Christian Dessouroux and co-authors (2011; 2016), and Vanneste and co-authors (2007, 2008). The Belgian housing policy has been strongly characterized by homeownership advocacy and a low share of public housing compared to the free rental market, called a "Laissez-faire" policy. Historically, the National Society of Home and Low-cost Housing (SNHLBM) was created in 1919 to address housing accessibility, both in the rental and owner-occupied sectors. After the economic crisis of the 1930's, housing policy became more social-oriented. In the post-war period, emphasis was put on a more coherent housing stock, through (mostly) homeownership support, as well as public social housing provision, and renewal of the existing stock.

In old city centres, housing is generally in bad conditions. In Brussels, the densely built core centre is contrasting with a generalized urban sprawl. The city is composed of an "upper" part, with large and wealthy dwellings, progressively transformed (or demolished to rebuild) into offices during the 20th century. In the "lower" city, retail and craft economies were bitten by popular housing and the development of industry along the canal. The latter constitutes a structuring axis w.r.t. housing quality, and a clear boundary between the western "poor crescent" and the eastern wealthiest neighbourhoods. The urbanization of the surroundings has increased up to erasing the city boundaries. Suburbanisation could be observed from the late 19th century, with the development of railway, but became considerable in the 1950's due to the promotion of homeownership and later, the democratization of access to cars.

In the 1980's, the Brussels Capital Region (RBC) started setting up the urban renewal of the core city and the first ring, and launched an urban revitalisation plan in the 1990's. The urban renewal was still enhanced through the promotion of homeownership, in order to prevent urban sprawl, and the advocacy of a back-to-the-city movement for middle and high-income households. Consequently, the core city is quite densely built today and most dwellings are rented to a population overrepresented by young, single and foreign people. In the second ring, newer districts are less densely built with a greater proportion of single-family houses, initiating the suburbs. Hence, the urban region represents 62 municipalities for 1,8 million inhabitants versus 36 municipalities for 1,4 million inhabitants in the operational agglomeration (Jones et al, 2015).

The on-going suburbanisation out of the regional limits is an important feature depending on the dynamic of migration in and out of Brussels. Both movements are deeply linked: the ones who leave are often replaced by younger newcomers. Migration out mostly concerns middle and higher Belgian classes, and increasingly migrants from the previous generations. This path out of the city is part of the upward social mobility. It is also driven by the possibility to buy an affordable asset in an attractive environment, as well as the transport policy (company cars, RER network design). Migration in has been contributing to the population renewal. Though a wide diversity of profiles and incomes within migrants, low-income households are overrepresented. This part of the population is constrained to stay living in poorer neighbourhoods of Brussels.

Given the recent demographic boom, housing production, especially affordable housing, is a key issue: about 40 000 dwellings will be needed by 2030 and more than 36 000 households are waiting for a social dwelling. Housing market prices have been increasing as well as poor housing, resulting in a layered market working as a "social filter". In addition, precarization can be observed in household composition (more young adults staying with their parents) as well as dwellings overcrowding, overrepresentation of middle-income households, and alternative housing in the poorest districts of the city. The scarcity of affordable housing is facing a market where private developers remain the key-actor, holding 70% of housing supply. Only 10% of the new dwellings are public housing, among which 15% can be considered as social rental housing. Finally, transformation of existing buildings represents more than one third of the total production. Several former industries, workshops and office buildings could still be converted into housing today.

Moving to the Brussels' Office market and the structure of the economy, we summarize some key-elements using the contribution of Dessouroux (2010) and Doornaert et al (2016). The Office market followed a speculation dynamic before a great decline, the first oversupply crisis having appeared in the late 1970's. From 2011 onwards, conversion into housing has led to stabilizing the office vacancy rate to 8% in average, but is much higher in secondary centres. As housing is biting other markets, conversion into housing should increase in the coming years. The main key-drivers of the office market are the Public administration and political institutions (both Belgian and International), all activities related the European Union (local offices, lobbies, diplomacy, NGO, etc.), as well as finance and services. The strong presence of European Institutions and commuters are important drivers of the market, namely regarding workplace location.

To conclude, we highlight some innovative practices and key-features of the public discourse. First, home-based telework is still more popular than the use of co-working spaces in Brussels. While up to 40% of working hours can be spent at home in the public administration, the RBC listed roughly 50 co-working spaces in the city that are rarely fully occupied, according to our field contacts. We assume that co-working and other innovative practices are not more developed due to cultural and economic aspects, such as: less emphasis on entrepreneurialism, and so less self-employed workers, compared to e.g. the Netherlands, as well as larger housing units size, due to a tighter regulation and the cultural context.

Second, on the housing side, a few service-oriented buildings do exist but they are still isolated cases, as the current regulation lacks of flexibility in that way. At a bigger scale, mixed-developments are encouraged by Public Institutions through pilot operations led by the public stakeholder "Citydev". The regional ambitions are translated in a strategic plan (PRAS), which defines specific areas aiming at enhancing the return of small industries in the city. The objective of mixed-use areas is also to improve the acceptability of public housing developments, by providing amenities and services. Hence, by increasing the added value of the existing neighbourhood, Public Institutions hope to reduce the "NIMBY" effect and expand public housing production.

Amsterdam

Unlike Brussels, Amsterdam has always been characterized by a strong share of public housing, related to a strong commitment of the national government, mainly after World War II (Boelhouwer and Priemus, 2014). Social dwellings are owned by private non-profit associations, and represent 75% of the rental stock and 30% of total housing stock in the Netherlands (Van der Veer, 2017). In Amsterdam, the nine housing associations own more than 40% of the housing stock. This crucial stakeholder for the Dutch housing tradition must always deal with interests of government, market and community, thus acting in a "tension field" (Mullins et al. 2014 in Nieboer and Gruis, 2016).

The Dutch housing policy is briefly sketched using the contributions of Boelhouwer and Priemus (2014), Hochstenbach (2016), Musterd (2014), Nieboer and Gruis (2016), Savini et al (2016), Terhorst and van de Ven (2001), and Van der Veer (2017). Social housing was introduced in the late 19th century to offer a decent and affordable house to a greater number of households, and was officialised in the Housing Act of 1901. But public housing supply became really substantial after the World War II and the establishment of the Welfare state, and was characterized by a strong social mix. If the social sector's share grew to 44% by the early 1990's, it dropped back to 31% in 2012 while the owner-occupied sector reached some 60%. The latter became the only housing sector in the Netherlands constantly growing from WWII until today. During the economic crisis of the late 1970's, the role of housing associations was particularly significant. Nevertheless, a trend to the reduction of the welfare state and state intervention in public housing progressively emerged in Europe.

Amsterdam entered an “urban crisis” due to economic downturn, increasing unemployment, declining population…and a larger share of households dependent on welfare. This constrained the city to increase its supply and promote the urban economic growth, resulting in the so-called “compact city” policy.

In the 1990’s, the progressive neo-liberalization of the state started, two decades after other Western European countries. In the great Amsterdam, public housing went on increasing until 1995 though, up to 55% of the total stock. The housing associations obtained their financial independence (rent allowance instead of direct subsidies) and responsibilities and risks were transferred from the State to the local authorities. They became more entrepreneurial and invested in urban renewal and the diversification of their housing stock. After the global economic crisis of 2008, the eligibility to social rental housing was scaled down and the national government tried to stimulate the owner-occupied market. But the free market housing production felt down, housing associations becoming the only party able to maintain their activities. As they could also build owner-occupied dwellings and non-regulated rented dwellings, their share of the production reached 60% in 2012.

In 2011, because the public stock was bigger than the size of the target group, the government installed a “Right-to-Buy” policy. Actually, the European Commission asked housing associations to focus on “socially deprived households”, reinvest profits from commercial activities in social housing, and sell houses in case of overcapacity. Housing associations thus started selling dwellings to tenants and used the benefits for housing development and social activities (“revolving fund”). As their portfolio could still cover a broad area of activities, they were more flexible and carrying a more market-oriented rental policy, by increasing rents. Also, as more than 80% of the land is owned by the municipality, they still received public support, private developers having to create partnerships with housing associations to respect the minimum proportion of public housing required by the plans. In 2014, after several scandals (e.g. high salaries, mismanagement) and affairs (fraud, big losses…) reinforced by a negative perception, state control increased. A new tax, the “Landlord levy” was also introduced in the framework of austerity measures. Since the revision of the Housing Act in 2015, Housing associations need to find third parties to develop mixed projects. They were asked to go back to their core activities and are not allowed anymore to build spaces with commercial function. They are no longer more focused on low-income households.

Futhermore, scholars have identified “state-led” or “third wave” gentrification and the emerging fight for the just city (Hochstenbach, 2016; Van Gent, 2013). In Amsterdam, this process was driven by privatisation and liberalisation of the housing market in selected neighbourhoods. The wish to meet middle-income and creative class preferences is an important feature. Tenure conversions from rent to the owner-occupied sector have been spatially differentiated, contributing to the gentrification of the central city and to downgrading of certain post-war neighbourhoods at the same time (Boterman and van Gent, 2014). But the reduction in social rental housing has been observed on the surrounding gentrification boundaries as well, especially along the A10 ring road. The highway, separating pre and post-war districts, has been increasingly acting as a physical and mental barrier between the inner city and the periphery. In other words, public action was shifted to specific neighbourhoods where issues are more manageable, following Neil Smith’s gap theory (Madden and Marcuse, 2016).

The flexibilization of housing could be observed in the legal framework with the introduction of flexible contracts. This policy allows housing associations to apply temporary five-year contracts for young people in up to one-third of their stock. These contracts are also seen as a potential solution to the “skewness” problem, i.e. situations where households originally eligible for social dwelling see their income rise. They would go on renting their dwelling at a low price while not belonging to the target group anymore. This was a serious problem especially in large cities as Amsterdam. Another problem was the illegal subletting of public rented dwellings. More recently, the local government was obliged to regulate Airbnb locations (60 days per year maximum) because its pressure on the market.

After having depicted the housing context, we give some insight of the Office market based on the contributions of Remoy and Wilkinson (2012) and Remoy and van der Voordt (2014). Amsterdam, which has been a trading centre since the 14th century, saw his office market grow significantly between 1950 and 2000, in districts located in and around the city centre. The development of office spaces in the centre was strictly regulated in terms of scale, leading developers to build larger modern buildings in "post war business parks". In the most recent years, the demand almost disappeared, generating a significant oversupply of office spaces (Savini et al, 2016). Consequently, high vacancy rates would be measured, about 18.5% in 2011, with half of the vacant area considered as "structural vacancy". The surplus office stock includes post-war buildings from the early 1970's, vacated for new ones because of their physical obsolescence.

As in Brussels, conversion into housing has been initiated in Amsterdam, mostly on buildings vacant for years. The phenomenon is well-established in the city centre, especially along the canals were the 17th century houses were intended to mix different uses and change function over time. Also, the conversion potential of office buildings in this area is guaranteed by high residential values, biting other markets. The proximity of public transports and facilities, and the mixed-use character are other important features. In other words, successful conversion first depends on the building location and its characteristics w.r.t. housing target group, potential return, etc.

The main key-drivers of the economy are the financial, creative and knowledge-intensive sectors. The economic position of Amsterdam has become stronger and more diverse compared to the country as a whole in the past 15 years (Savini et al, 2016). The presence of higher-education institutions also ensures the yearly influx of highly educated workers (Hochstenbach, 2016). Young professionals and self-employed, called "ZZP" for "Zelfstandige Zonder Personeel" are increasingly emerging. However, these are often working-poor households in precarious conditions, often requiring intergenerational support to buy a house.

This brings us to conclude by highlighting current trends and issues related to innovative practices and the public discourse, based on contributions of Hochstenbach (2016), Hochstenbach and Musterd (2017), Savini et al (2016), and Van der Veer (2017). First, the need for affordable housing has been reinforced by the recent demographic growth. With a population of 2,2 million inhabitants in the metropolitan region, more than 900 000 newcomers are expected by 2025. In particular, affordable housing must be protected within the core city where prices rose tremendously, especially since the recent boom in housing production. Housing policy has been increasingly focused on affordability for middle-income households, who are no longer not eligible for social housing or confronted to long waiting times. The owner-occupied sector has become inaccessible for them as well, due to the scarcity and strict conditions of mortgage loans. The increasing flexibility of the labour market is not helping.

As already mentioned, the municipality efforts are directed towards holding middle-income households in the city and helping them to become upwardly mobile, especially young professionals and starters. According to housing associations, selling social dwellings is an opportunity for these groups to get an affordable house, but the local government is also supporting the private rental sector, to compensate the decreasing access to homeownership. Flexible contracts seem also driven towards this new creative – but precarious – class. Recent initiatives aiming at improving housing affordability can be pointed out. The cooperation agreement 2015-2019 has been set up between the municipality, housing associations and tenants organizations to stop the decline (and sales) of social housing, reach 75% of affordable rental dwellings, and enhance housing production. Also, the pact "PAM wonen" has been executed to emphasize new developments for middle-income households outside the ring. More interestingly, the emphasis on the creative class and the new economy has participated to the definition of "working-living" areas in urban planning strategic documents such as "Koers 2025". These areas are intended to mix housing with facilities and small workplaces and will be principally located along the ring A10, i.e. the currently gentrifying areas. One may wonder how the municipality will manage to increase the functional mix while maintaining affordable housing at the same time.

Brussels and Amsterdam compared: facts and key figures

We sum up some facts and key figures in Table 5.

	Brussels	**Amsterdam**
Demographics		
Population	1 800 000 inhabitants (urban region)	2 200 000 inhabitants (metropolitan region)
Demographic Issues	Affordability for young migrants and students	Attractiveness for young adults Amenities for the elderly
NWOW		
Telework[1]	25% in BXL - 23% in BE (2015)	31% in NL (2014)
Professions	Managers, knowledge workers, administration	N.A.
Activities	Knowledge economy, teaching, IT, Real Estate	ICT, Finance, Teaching
Mobile work		
Coworking	+/- 50 locations in RBC, less developed than in other EU cities	Widely developed (no figures yet) WE WORK places
Housing policy and regulatory framework		
Local authorities involved	Brussels Capital Region (RBC) 19 municipalities	Municipality of Amsterdam
Public housing	About 10%	More than 40%
Public providers	Social rental housing: SLRB Owner-occupied: Citydev	Housing associations (Nine in Amsterdam)
Size regulation	One-bedroom units from 55 m^2	Emphasis on small units (18 m^2)
Economy		
Sectors	Public administration, Europe, Finance, Services	Finance, creative and knowledge-intensive sectors
Vision	Small industries in mixed-use areas Public support for ICT, green tech, eco-building, life sciences	Attract young urban professionals New "work milieus": International, Innovative, Creative, Productive
Urban planning		
Structure	Inner-city (Pentagone) 1st and 2nd rings inside the ring way Surrounding towns outside RBC, in both Walloon and Flemish regions	Core city (old canals) Gentrified neighbourhoods, harbour inside the ring A10 Surrounding new towns
Mixed-use areas	"ZEMU" defined in the "PRAS"	"Working-living" and "Living-working" areas in "Koers 2025"
Land market and planning tools	Scarcity of public land PPP Citydev - private developers	80% of the land owned by the municipality, Land-lease contracts PPP Housing associations – private developers

Table 5: Brussels and Amsterdam compared: facts and key figures

[1] Sources : Statistics Belgium (2015), *Labour Force Survey 2015*, Brussels ; CBS and TNO (2014), *Nationale enquête arbeidsomstandighede*, available at http://www.monitorarbeid.tno.nl/publicaties/netherlands-working-conditions-survey

First results

As the coding and the qualitative analysis are still in progress, we chose to present our first results through four theses highlighting differences and similarities identified so far between the two cities.

Thesis one: functional mix at the block level advocated by Public Institutions

The enhancement of mixed-use projects is promoted by the public sector in both cities. In Brussels, it is planned in the Regional Land Use Plan (PRAS), which defines different types of mixed areas. In the last few years, a new type was defined as "ZEMU" or Enterprise Area in Urban Environment. One of the objectives is to reset up small industries in the city as well as spaces for B2B companies, especially along the canal. In practice though, some Interviewees ("Stragic planners" as well as "Public provider") are criticizing a prevalent production of housing units to the detriment of other functions in these areas.

The public operator "Citydev" is a key-stakeholder in the implementation of the functional mix. As Citydev receive subsidies to build housing and production spaces, they have the possibility to merge these functions in one project, most of the time in partnership with private developers (PPP). More recently, their role changed to broaden the functional mix: working with a wider variety of partners (social housing providers, municipalities, etc.), they became progressively "facilitator" creating the necessary collaborations between actors.

The implementation of the functional mix operates through pilot projects which Citydev still has little feedback on, mostly for projects with vertical mix, i.e. within a same building. It seems that they are expecting this feedback before amending official documents.

When interviewing "private providers" on their willingness to develop mixed projects, they would not do it on their own initiative, but some of them seemed to be satisfied to be involved in such projects in the context of e.g. a PPP with a public operator. However, they specified that partnerships and big scale projects are necessary features to success. Location is another key-feature: the project must be in an urban redevelopment area and well connected by public transports. Other "private providers" were clearly against this concept though, for matters of cohabitation or management of the jointly owned areas. Most of them seemed also expecting more feedback from current projects, even though mixing different functions should reduce the commercial risk, according to the "Private sector lobby", who still recognized that it complicates the commercialization of units.

In Amsterdam, if mixed developments are also at their very beginning, being at the negotiation step for most of them, the planning process is different. The department of Urban planning together with the department of the Economic Affairs of the Municipality have designated "working-living areas" in strategic documents such as "Koers 2025" and "Ruimte voor de economie van morgen". The planers aim at combining different types of economic activities, including small-scale offices for the creative class, with housing. According to the "Strategic planners" interviewed, housing and working activities were separated after the 1920's and designing mixed areas allow returning to a tradition that was inspired by the functional mix of the core city. These areas are mostly located around the ring A10, thus at the interface between the inner city and the surroundings. In this case, functional mix is driven by the rising new economy.

The implementation of the plan will be constrained by the current land market and heavy procedures necessary to modify plans and land-lease contracts. Functions allowed to be built are defined in the plans. Even if the plans allow another function, it will be still necessary to change the land-lease contract, involving heavy costs and procedures. Also, one "Strategic planner" expressed the concern of the municipality that housing could push other functions away, the market being stronger. This is actually happening in Brussels' ZEMU. In case the municipality has to buy new plots, once the administrative process is in good order, it is necessary to prepare the plots with new infrastructure, generating additional costs.

Another "Strategic planner" interviewed also expressed reserves w.r.t. cohabitation of economic activities with housing, insisting on the importance to create the "right mix". Although the idea is to create a natural mix similar to the core city, the economic activities that will be implemented in the new developments will be different, so will be the mix.

We have very little feedback from the private sector on this topic so far as we could interview only one investor, mostly involved in traditional investments. But he would be part of the one who "wait and see" before investing in such projects, still at an experimental stage according to him.

In both cities, the emphasis on mixed-use areas in urban planning leads to a more polycentric, but geographically differentiated, development of the city. In Amsterdam, several "working-living" areas are located along the ring A10, while in Brussels most projects are located close to the canal. We assume that the economic path of each city influences the "desired mix". In Brussels, the strong industrial past puts emphasis on reinsertion of productive activities. In Amsterdam, the old presence of a diverse economy and of financial trading leads to small-scale projects towards the creative class.

Thesis 2: service-oriented housing with shared spaces constrained in a differentiated way

Unlike Thesis 1, it seems that mixing functions at the building scale through the development of shared spaces is more encouraged by the private sector, but constrained by current regulation and policy, specific in each city. During the interviews, we noticed that setting up common space has entered in developer's minds, even in the mainstream production.

In Brussels, housing design is regulated by the Urban Regional Regulation "RRU". Regulation on room size is a highly polarized topic and is especially criticized by private developers who see the minimum size for small apartments as too large (one-bedroom units from $55m^2$), and feel it as a barrier to match the housing demand. The mix in dwelling-types (one-bedroom to three-bedroom units) often required in public projects is lacking of flexibility as well, private developers arguing for more possibilities to develop small units. Also, exteriorising functions in shared spaces is not officially permitted, according to the "Private sector lobby".

Another barrier is financial. On one hand, invest in such projects, still part of niche markets, present a financial risk. This can only be managed if the project is located in an area where both office and housing markets are strong enough. On the other hand, administrative costs and use of shared spaces add complexity to condominium management. One "Private provider" we met is thinking of developing new flexible housing models with shared kitchens, living rooms, and providing "co-living" benefits…but he's still not sure of the demand. Another interviewee pointed out the feeling of a future demand towards service-oriented housing, following homeownership decrease. Anticipating the demand within five or seven years is a real challenge for private providers. For public sector, it is considered as too risky to develop shared spaces without subsidies.

In the Netherlands, minimum surface area is regulated in the "Bouwbesluit". Small dwellings have been increasingly developed in Amsterdam compared to Brussels…which is probably partly cultural, Belgian houses being traditionally larger. One private developer even decided to specialize in micro-apartments with the concept of "friend-houses". The idea is to propose very small studios with shared living spaces, especially for young flexible people. Apart from this particular concept, one interviewee informed us that the standard apartment size has been shrinking from about $80m^2$ before the 1980's to $30\ m^2$ today, which is under the average but highly demanded. One "Strategic planner" highlighted interestingly the inevitable loss of quality due to size decrease and its influence on the "selection mechanism". People who need more space will have to go somewhere else…bringing us back to the question "Quality for whom?" Although size regulation is looser, building regulation in general are differentiated depending on the function…and thus constraining anyway. Nevertheless, it is less restrictive in case of an existing building transformed.

As housing associations are restricted to their core activities, opportunities to create shared spaces and mixed-use buildings (with commercial activities, e.g. co-working spaces) are constrained in public housing too. They no longer need third parties and form strategic partnerships to develop such projects, which complicates the implementation. They will look in this direction only if the market shows its viability. Again, land market and financial risks are other barriers, but one "Strategic planner" insisted on the importance of having flexible ground floors in new developments, as it is directly interacting with the street.

Thesis 3: different economic path involving divergent public discourses

As previously mentioned, the economy structure characterizing Brussels (industrial past, prevalence of commuters, European Institutions) is very different in Amsterdam, where the economy was always diversified. During the first slave trades, the stock market and assurance companies were introduced, making of Amsterdam one of the biggest powers in the world. Financial institutions are still very present nowadays. The city was industrialised quite late because it was economically strong already. It did not suffer too much of the manufacturing industry collapse thanks to its trading tradition. Besides, the presence of several Universities, cultural activities, as well as the wealth industry has given to the city all the skills needed for the development of the new economy.

The economic strategy is thus driven towards the creative class. The objective is to catch highly educated young professionals. One "Strategic planner" simply stated what follows:

> *"Companies come to Amsterdam because they follow the people, you know…Richard Florida ! (...) We really have to be able to keep people attached to the city."*

According to him, most of advertisement companies are already located in the inner city but still working "at the kitchen table". This is part of the city strategy to strengthen its position as the "Economic Engine for the whole Metropole" and create a "positive circle" in the labour market. Another "Strategic planner" explained this dynamic:

> *"You go to the cities because work is there. And because you go there, there's more work (...) that is that "circle" (...) It says a job market leads to more companies, more companies lead to higher productivity, which leads to higher payment. That draws labour, and then you have a higher labour market. Amsterdam is one of the growing cities. Because of its popularity, it will keep on growing."*

To enhance the labour market, the department of economic affairs, together with other departments of the municipality developed the concept of "working-living areas" and areas combining different layers of the economy, in the strategic plans:

> *"This is the economic challenge: what kind of possibility has this area? The creative areas (...) with small scale offices, which is not really a co-sharing space, but really for small scale businesses like creative designers, etc Basically the old centre is already built like that. But after the 1920's, Amsterdam forgot to build its centre with work and live, it was almost split (...). Now, we have the possibility to return to this tradition, to make a more real urban mix. And this has not been done yet so much. So we really put it on the agenda, because of the transformation of all these production fields, and because of the rise of the new economy (...)."*

Thesis 4: different housing path but mostly common housing issues

Both Brussels and Amsterdam have been facing a demographic boom during the last decade, leading to quantitative targets defined in the plans. In Brussels, migration movements are more complex though. But still, the "PRAS" plan defined quantitative goals to boost housing production, of 6000 units/year in 2013 scaled down to 4000 units more recently. With 11000 yearly newcomers, the "Koers 2025" plan aims at building 50 000 new dwellings before 2025. Moreover, due to the scarcity of affordable housing, both cities are confronted to long waiting times for social rental housing.

Yet, housing is biting other markets in both cities. In Brussels' "ZEMU" areas, some projects present mostly housing and (almost) no industry or spaces for companies. In Amsterdam, it was necessary to protect the Corporate Real Estate market in the core city since it has been jeopardised by not only Housing but also tourism and hotels specifically.

However, Brussels is facing some specific issues regarding housing provision and public housing particularly, as was mentioned by the majority of interviewees. The most redundant is the "NIMBY" effect, making functional (and social) mix one of the main drivers to the acceptability of public projects. Public and affordable land is another big challenge, as well as Brussels region position, stuck between the Walloon and the Flemish regions, housing providers having to work in a limited area. Finally, the complexity enabled by different levels of power and the complex regulation complicates dramatically the development process and generates potential delays. In Amsterdam, owning the land and issuing land lease contracts is a power and a challenge at the same time, as it generates heavy administrative procedures and is constraining in case of modification.

Furthermore, problems are geographically differentiated, almost mirrored. Gentrification is affecting the core-city and adjacent neighbourhoods in Amsterdam. In Brussels though, it concerns the southeast second ring area and the direct suburbs, pushing the suburbanisation farer. Thus, the upward mobility is reversed between the two cities: from the centre towards the closest suburbs in Brussels, and from basically everywhere to the inside-the-ring city in Amsterdam.

Conclusion

In this paper, we highlighted some effects of the labour market mutations on housing in Brussels and Amsterdam. In the first section, we pointed out the emergence of NWoW in the context of the new economy as well as flexibilisation and commodification of housing. We identified the "spatial hybridization" of housing through the development of service-oriented housing and the emphasis on mixed-use urban areas.

We used path dependence as a "reading grid" and introduced Brussels and Amsterdam from a historical perspective. So far, this method allowed us to better understand information retrieved from early interviews and policy analysis. We emphasised four elements of comparison between the two cities: functional mix at the block level, service-oriented housing, economic and housing paths.

For each element, we discussed differences and similarities. Developing either mixed-use projects or service-oriented housing is challenging for public and private stakeholders in both cities. We identified namely the lack of feedback on early stage projects, the financial risk, regulatory issues, and the need for creating collaborations between different parties. Although each city presents some specificities regarding the public instruments used, the land market management and housing size regulation, we found some similarities. Though geographically differentiated, urban development is more polycentric, housing pressure is generating a scarcity of affordable housing, and administrative barriers come into play.

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