

Re-urbanisation - New Industries for the City

INTRODUCTION

BEOS Survey is an analytic series that reports quarterly on the latest in corporate real estate, also covering the related segments of industrial, manufacturing, and logistics real estate. This issue looks into the established urban development approaches with their functional separation of use types against the background of the ongoing changes in industrial production and the ramifications of Industry 4.0.

COMMERCE AND QUARTERS IN TRANSFORMATION

Inner-city manufacturing sites from the late nineteenth century or sprawling railway yards that have become structurally obsolete are often put to alternative use in response to land shortages. The conversion is bound to run into problems, though, if urban planning standards are applied that fall short of today's development expectations. For instance, Germany's present Building Code (BauGB) is rooted in ideas dating back to the 1960s¹ that are exclusively committed to economic growth and presuppose a separation between basic existential functions. This is true in particular for the workplace, which in the urban planning context has mostly been reduced to office work. Industrial, manufacturing and logistics jobs, by contrast, used to be relegated to suburban locations. In the mid-twentieth century, the approach was admittedly legitimate, considering the intense pollution with contaminants, noise and odours that used to be associable with these lines of business. But going forward, with the evolution of Industry 4.0 now under way, or even today, a majority of manufacturing businesses are characterised by small-scale and mixed structures with negligible emissions.²

SEEKING A NEW UNDERSTANDING OF CITY AND INDUSTRY

Although the notion of separating urban-planning functions has been criticised since the 1980s, and while urban planning has long started considering

mixed concepts again,³ commercial businesses downtown remain the exception.

Settlement Policies Favour Housing:

The progressing urbanisation exposes economically strong metro regions more than others to an intensifying rivalry of the various use expectations. As the population grows, so do people's needs to live and work, educate and supply themselves, and engage in recreational and cultural activities. With vacant space in short supply, certain urban functions are emphatically favoured over others. The strongest commitment by the body politic is to housing construction. This explains why policymakers, interest groups and other stakeholders have in the past launched initiatives for promoting the development of new housing, for instance.⁴ However, it is unclear how purely residential areas will develop in the longer term. Similar structures from the 1970s are deemed rather unpopular and distressed neighbourhoods today (e.g. Steilshoop in Hamburg or Gropiusstadt in Berlin).

Environmental Effects Favour Amalgamation:

The separation of urban functions generates traffic flows of differing intensity. A key role is played by the workday commute between the place of residence and the workplace.⁵ The separation of the two spheres can create considerable commuting distances that many employees have to cover every day. The traffic flows thus generated creates pollutant emissions (carbon dioxide, particulate pollution, etc.). From an environmental point of view, it is becoming increasingly obvious that the current urban development model is neither sustainable nor fit for the future.

LABOUR MARKET IN TRANSFORMATION

Parallel to the changes in manufacturing and urban-planning structures, the labour market will undergo a transformation. More than anything else, our production and logistics modes are about to change in the wake of Industry 4.0. Generally speaking, however,

it is not the only section of the labour market that is shifting. There is an ongoing intense debate in expert circles regarding the ways in which the traditional idea of the workplace will have to be radically revised in response to the advancing computerisation and technological progress. This concerns not least many sophisticated knowledge-based jobs in the service industry, which is a business sector welcomed, and encouraged to settle, in inner cities. These professions are to a varying degree at risk of being replaced by algorithms and automation, as the susceptibility chart below illustrates for selected jobs.⁶

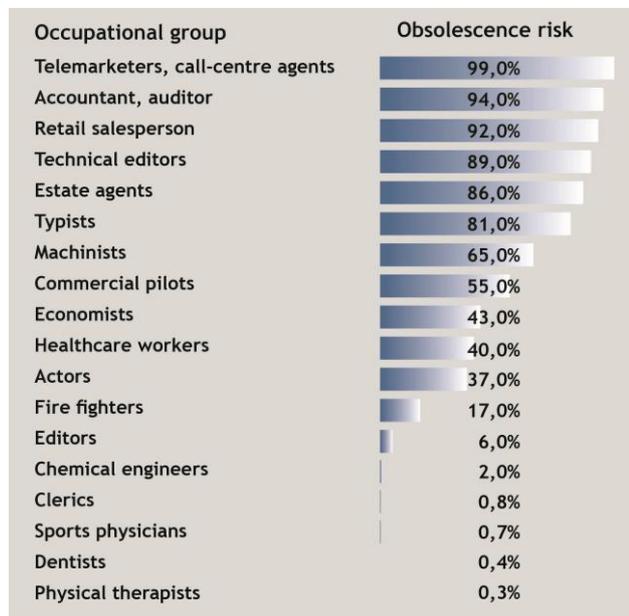


Fig. 01: The degree to which workplaces are susceptible to being replaced by new technologies, using selected exemplary professions on the US labour market⁶

While this is just a statistical model for the time being, urban planners are well advised not to limit themselves to any single type of workplace, such as those for white collar jobs, and to pursue a corresponding settlement policy.

If companies of the most diverse business lines arrange themselves with the geographic situation, and if local residents are integrated, both sides stand to benefit: Short commutes for employees, on the one hand, and an attractive environment with networks across trade boundaries, with corporate services and with qualified professionals in an urban setting for businesses, on the other hand.^{7, 8}

URBAN DISTRICT DEVELOPMENT AS TOOL OF SUSTAINABLE URBAN DEVELOPMENT

Given the fact that urban planning and settlement policy have extremely long-term effects, the time to realign them is now.

But the attitude among the political and administrative stakeholders is slow to shift. Planning processes that are supposed to result in comprehensive urban district developments often do consider a variety of use types. But just as often, the commercial share is reduced to offices, doctors' offices and retail units. Planning competitions generally relegate commercial property to the hazy role of noise barrier rather than seeing it as a productive element of a modern urban economy. Integrating commercial businesses that are not a nuisance but attractive, and that may even include manufacturing, presents a unique opportunity to combine workplaces and urban structures in mixed quarters whose sheer variety of use types makes them appealing, profitable, environmentally sound and socially sustainable.

When planning urban district developments it therefore makes sense to envision a broad spectrum of floor plates that permits a rich diversity of use types while remaining flexible and even reversible.^{7, 8}

RESTRUCTURING BROWNFIELD ASSETS FOR REGAINED SPLENDOUR

Floor plates with the above qualities are also known as "flex space" and quite common in Anglo-Saxon countries. They lend themselves to a wide range of different type of use: research & development, lab, manufacturing, show room, data centre, and office.⁹

Yet what sounds like an innovative, creative idea has actually been around on Germany's real estate market for more than 120 years. Late nineteenth century trading estates were raised in the form of multi-storey light industrial buildings that lent themselves to various occupiers ("multi-tenant") and types of use ("multi-use"). The structures frequently in demand today, such as high ceilings and widely spaced grids of columns, were the very preconditions of efficient production back then. The dynamic growth of German cities caused formerly suburban locations to be bypassed by advancing urban development, so

that in many cases they are located on the periphery of the town centre today.

Having been relegated to a wallflower existence by the post-war ratification of regulatory constraints and the creation of new trading estates out of town, these complexes are now being rediscovered. Extensive refurbishment work lets these transformation properties regain the kind of splendour that attracts a wide variety of target groups. You will find start-up companies next door to advertising agencies, labs next to manufacturing businesses, tradesmen sharing a building with producers, wholesalers and high-tech firms. In the current market environment, these period buildings are experiencing a renaissance as “urban flex space.” Seen as a category in its own right, they form a new downtown industry with very low emissions or none.

There is already a number of cases in point in Germany. The municipal stakeholders are often prepared to make zoning compromises in order to support the conversion of obsolete commercial property and railway yards. There has also been an increasing number of initiatives lately that promote commercial and light industrial jobs in the urban realm.¹⁰ Presented below are several developments:

Carlswerk, Cologne-Mülheim:



Fig. 02: Mixing urban functions at Carlswerk

Carlswerk is a textbook example of a successfully executed urban district development where industrial property no longer up to standard was converted

into a demand-oriented, mixed-use neighbourhood. The centrally located industrial compound of more than 110,000 sqm of potentially usable area and long-standing tradition was never fully occupied after cable production at the site ceased in 2008. A massive investment backlog manifested itself in an unappealing appearance and in some places in derelict building fabric, both factors hampering a constructive redevelopment both of the property itself and of its urban surroundings. Extensive investments paved the way for opening up the compound, which formerly had a monolithic structure and was cut off from the surrounding district location. This helped the new urban quarter blend with its surroundings. The brownfield development, which involves investments of c. 100 million euros and is scheduled to be completed by 2020, will provide an attractive work environment for 60 companies and around 2000 staff.

Altes Röhrenwerk, Ulm:

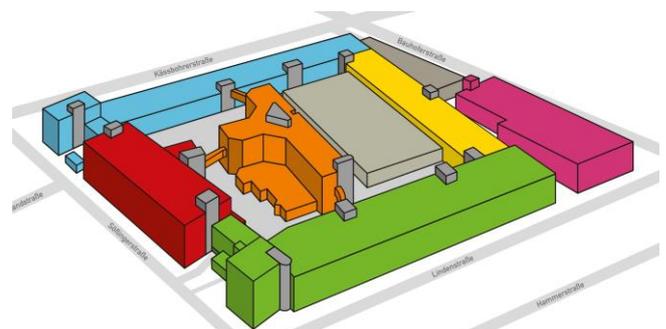


Fig. 03: Integrating the former vacuum tube factory into the urban structure

Originally built as an armoury and more than 100 years old, this brownfield site was known for the production of TV vacuum tubes. In 2011, occupiers and project partners launched a joint effort to develop the compound. Today it resembles a business park as it is home to 30 businesses of the most diverse sectors. The site, which used to extend over around 35,000 sqm of obsolete floor area, was expanded and turned into a mix of commercial units for office, lab, and production use. The total floor area of 50,000 sqm now available across 12 buildings includes floor plate of various quality standards. Especially businesses from the fields of high-technology, microelectronics, medical technology and chemicals tend to appreciate these characteristics and opt for the downtown location.

CONSTRUCTION TREND: URBAN DISTRICT DEVELOPMENT WITH A COMMERCIAL TWIST

New urban district developments that take commercial property aspects into account are still the exception in Germany. In fact, commercial types of use are often not actively considered unless the nature of the site makes them unsuitable for purely residential use and unless classic commercial locations are found in the vicinity. Examples include two former freight yards, one in Hamburg (“Huckepackbahnhof”) and one in Freiburg (“Güterbahnhof Nord”).

Freight yard “Huckepackbahnhof,” Hamburg:

Sections of the former freight yard are to become a 21st century version of Hamburg’s famous Speicherstadt quarter on around 10.6 hectares. Surrounded by residential areas, up to 180,000 sqm GBA are to be created in multi-storey commercial buildings. The spectrum of use types is to range from innovative small-series manufacturing and modern trade shops, to companies from the creative industry and IT sector, all the way to research and development. On the street level, restaurants and stores will complement the quarter.¹¹



Fig. 04: Urban-planning structure of the former “Huckepackbahnhof” freight yard (source: Henn Architekten)

Freight yard “Güterbahnhof Nord,” Freiburg:

After 13 years as brownfield site of roughly 30 hectares, the former Güterbahnhof Nord freight yard is now being developed into the “Green Industry Park.” To this end, 140,000 sqm GBA of commercial units will be created. Commercial and residential use will be harmonised, with housing for around 2,000 residents to be raised, e.g. in the form of student halls of residences and care homes. Demand for either use

type is very strong, and a large share of the accommodation has already been marketed.¹²



Fig. 05: Aerial photograph of the freight yard brownfield, site of the future Green Industry Park (source: Proprojekt)

CONCLUSION

The cited examples demonstrate how to establish a successful and sustainably harmonious mix of use types that includes commercial types of use. The keen demand for this sort of floor plate encourages such developments. By contrast, marketing efforts, sometimes over decades, for large-scale peripheral land reserves earmarked for light industrial use have in many cases failed to identify occupiers.¹² The separation of urban functions that this zoning practice reflects has obviously become unsustainable and will soon be a thing of the past. Commercial and light industrial businesses have no choice but to follow their labour force back to the city. It is the only viable longer-term approach to raising the full potential of human resources, knowledge and innovation while remaining competitive on a global scale.

- 1) Federal German Building Code (BauGB), dated 01/04/2015, 47th imprint, special edition, Munich.
- 2) BEOS Survey 05, 2014, Berlin.
- 3) Senate Department for Urban Development and the Environment, 2013, *Das Leitbild von der Urbanen Mischung*, pp. 11-15, Berlin.
- 4) City of Munich, Social Department, Office for Housing and Migration, 2009, *Perspektive für Wohnen - Das Kommunale Wohnungsbauprogramm in München*, Munich.
- 5) Kemper, F.-J. et al., *Die Stadt der kurzen Wege - Alltags- und Wohnmobilität in Berliner Stadtquartieren*, 2012, Wiesbaden.
- 6) Frey, C.-B., Osborne, M.-A., 2013, *The Future of Employment: How Susceptible are Jobs to Computerisation?*, Oxford.
- 7) stiftung neue verantwortung e. V., 2012, „Grüne Fabrik“ statt grüne Wiese - warum die Industrie wieder näher an die Stadt rücken sollte, Berlin.
- 8) CBRE, 2014, *The Mechanics in Manufacturing: Location Drivers in a Shifting Landscape*, London.
- 9) NAIOP, 2014, *Terms and Definitions: North American Office and Industrial Markets*, p. 12, Herndon, VA.
- 10) Senate Department for Economy, Technology and Research, 2014, *Masterplan Industriestadt Berlin - Version 2.0*, Berlin.
- 11) Georg Consulting, 2014, *Standortprofil Huckepackbahnhof Rothenburgsort*, Hamburg.
- 12) City of Freiburg im Breisgau, Department for International Contacts - Office for Green City et al., 2013, *WEGE ZUR NACHHALTIGKEIT - Green City Freiburg*, Freiburg.
- 13) “Am Beispiel der PrimeSite Rhine Region von NRW.Invest”, cf. <http://www.rundschau-online.de/euskirchen/-prime-site-rhine-region--hungriger-investor-fuer--filetstueck--gesucht,15185862,23421464.html>

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