

ILS-IMPULSES

Next Stop: Transit Neighborhood

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Development Potential at 747 Train Stations in North Rhine-Westphalia

Outline

- Creating affordable housing is a priority public task
- Development potential at Train Stations in North Rhine-Westphalia (NRW) is by far not exhausted
- Transit neighborhoods: compact, diverse, green
- Ensuring future options through active property management

Next Stop: Transit Neighborhood

The Corona pandemic will throw Germany into the deepest recession since World War II.¹ A crisis of this scope will also not leave the housing and property market unscathed, even if prophesizing the direction and scope of the effects is not possible.² But one thing does seem clear: The blatant shortage in affordable housing in many cities will not simply disappear in post-Corona Germany – not even if the house prices and rents were to fall after the unprecedented rise in the past few years. The opposite might even happen because, with the expected rise in unemployment, there is most likely to be an increasing demand for lower-cost housing. If, at the same time, the building sector collapses and the number of new houses being built declines,³ the supply crisis could be exacerbated even further.

Creating housing remains a priority task

Federal, state and local governments thus continue to bear responsibility for creating suitable planning frameworks that allow enough affordable housing to be built. In addition to increasing the supply of accommodation, it is also a question of mobilising suitable locations for sustainable urban development. The enormous influx of residents to the cities and the increased housing production in the last few years have, however, already led to the use of a large portion of the spaces that would have been suitable for infill and redevelopment. Former industrial areas, unused rail tracks or abandoned barracks are not renewable resources. Other forms of densification such as increasing storeys, building in backyards or replacing smaller with larger buildings theoretically offer great potential.⁴ But, such kinds of ‘unorthodox’ urban intensification are often opposed by the neighborhood population and face political reservations. The more recent – sometimes excessive – increases in land prices⁵ are also part of the problem, making it more difficult to construct new low-cost housing in inner-city areas. As a whole, the municipalities’ control mechanisms are, if anything, limited because a public land bank policy is often missing and land mobilisation initiatives are insufficiently backed by recognized land and planning policies.

Against this background, it is hardly surprising that many local authorities are reconsidering the urban fringe for spatial development. A moderate greenfield development at places that are well integrated into the infrastructure system can be considered as striking a balance between a both environmentally and socially conflict-fraught densification of urban centres and a space-consuming urban sprawl in the surrounding countryside.

“Transit-oriented development” as an international guiding concept

In the current international urban planning debate on this topic, importance is being attached to the concept of “transit-oriented development” (TOD).⁶ TOD stands for developing new construction areas and/or densifying the areas surrounding regional and local public transport stations and stops. In Europe, it

is in particular cities such as Amsterdam, Copenhagen, Lyon, Stockholm or Vienna that are often described as “best-practice” examples of urban development oriented towards public transport.⁷ In Germany, the concept of “settlement axes” has long been part of the basic repertoire of regional planning.⁸ The NRW state programme “Bauland an der Schiene”⁹ is setting a current tone by concentrating on successfully implementing measures. Integrated development concepts and stakeholder agreement in the process of developing station areas should overcome implementation barriers and accelerate the planning process.

Transit Neighborhoods: compact, diverse, green!

A contemporary understanding of TOD is not limited to a few terraced houses near a railway station and a car park for commuters. Newer generations of projects aim increasingly towards a close conjunction of higher-density housing and office space with a broad choice of mobility options. It is important to develop places characterized by a regionally integrated location, good local infrastructure, attractive public spaces, pedestrian-friendliness and a high proportion of green in the residential areas. Modern noise abatement schemes can simultaneously ensure proximity to transport infrastructure and healthy living conditions.

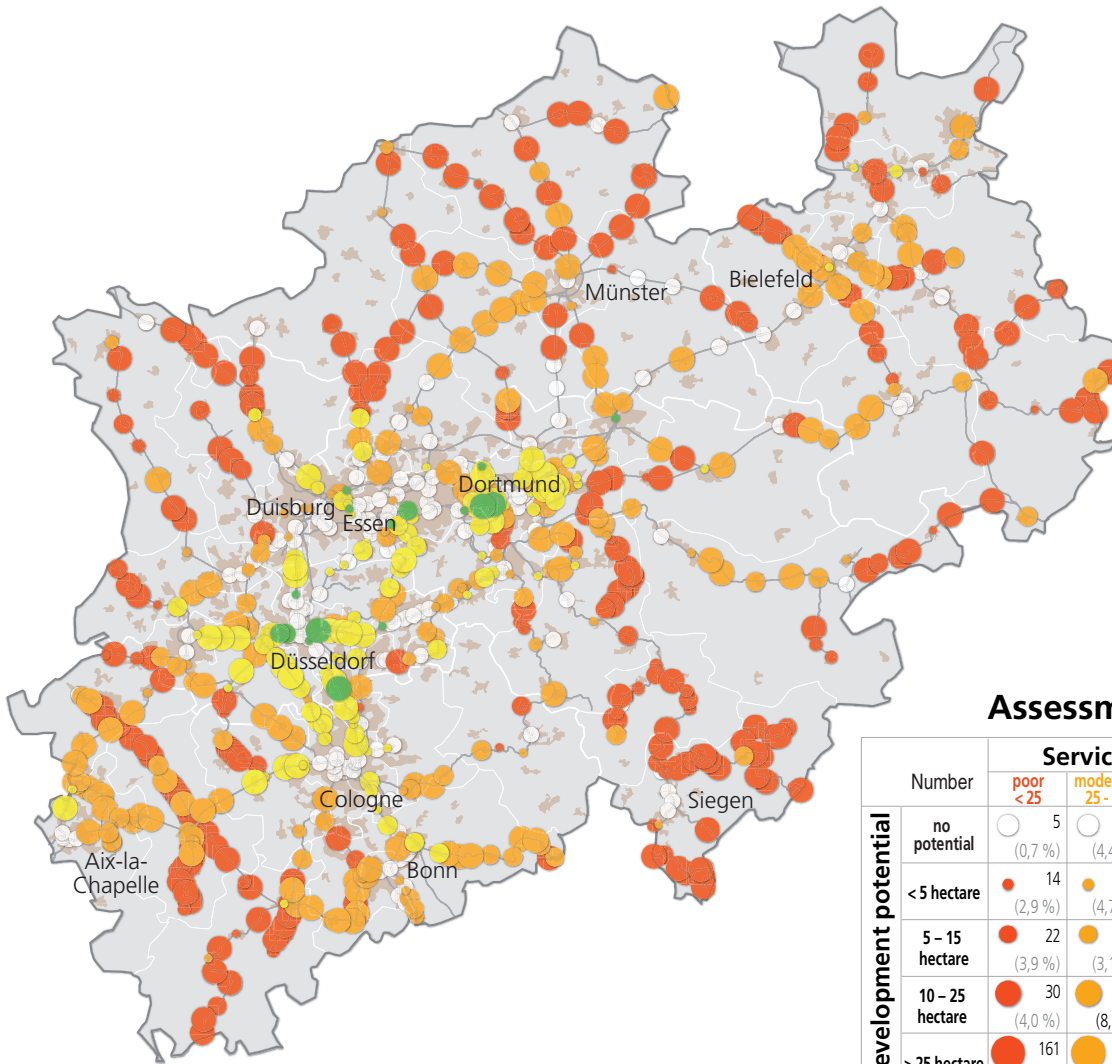
Potential in NRW not yet exhausted

What is the urban living potential in TOD areas in a strongly urbanized and excellently connected federal state such as North Rhine-Westphalia? To answer this question, a recent ILS study investigated the areas within walking distance of 747 stations of railed regional public transport facilities including suburban transport services (S-Bahn). The study aimed to determine the stations that have both high quality public transport services and space capacities for urban development. Underground transport, city railway and tram stations were not included because they are mainly important for intra-urban mobility.

The assessment methods employed in this study went way beyond other available studies in the German context¹⁰ and were mainly based on four criteria: (1) the quality of the public transport services at each station (trip frequency), (2) the transport infrastructure of the catchment area as related to connecting with other public transport services (potential for changing), (3) the regional population potential (population accessible within a 45-minute journey time) and (4) the potential area that could be developed.¹¹ A standardised “quality of site services” was developed from criteria 1 – 3, the value of which was placed between 0 and 100. The higher the number, the better the quality of what the station had to offer. The results and methods used in the study are given in detail in an ILS working paper.¹²

All in all, considerable areas are available for TOD development:

1. There is an estimated potential of 24,000 hectares at approximately 590 stations in NRW. If environmental restriction such as nature reserves and landscape conservation are taken into account, the potential is reduced to nearly 8,800 hectares.



Assessment of stations

	Number	Service quality				Total
		poor < 25	moderate 25 - 50	high 50 - 75	very high > 75	
no potential		5 (0,7 %)	33 (4,4 %)	67 (9,0 %)	55 (7,4 %)	160 (21,4 %)
< 5 hectare		14 (2,9 %)	35 (4,7 %)	34 (4,6 %)	9 (1,2 %)	92 (12,3 %)
5 - 15 hectare		22 (3,9 %)	23 (3,1 %)	14 (1,9 %)	0 (0 %)	59 (7,9 %)
10 - 25 hectare		30 (4,0 %)	62 (8,3 %)	34 (4,6 %)	3 (0,4 %)	129 (17,3 %)
> 25 hectare		161 (21,6 %)	110 (14,7 %)	32 (4,3 %)	4 (0,5 %)	307 (41,1 %)
Total		232 (31,1 %)	263 (35,2 %)	181 (24,2 %)	71 (9,5 %)	747 (100 %)

Service quality and development potential
at 747 Train Stations (own map)

Geodata: GeoBasis-DE/BKG 2018, Deutsche Bahn AG



A substantial amount of this area is, however, to be found in rural areas with a lower demand for housing.

2. At the 252 stations with good or very good quality of access to public transport there is, nevertheless, still a potential area of 2,400 hectares, equivalent to one tenth of the state-wide potential. Leaving aside the areas with environmental restrictions reduces the area to 1,300 hectares.

3. 160 stations have no TOD potential since the catchment area within walking distance has already been completely built. Here, it would only be possible to raise the passenger volume for the station by densification. However, this topic could not be covered as part of the study.

4. The NRW core cities with a strained housing market show widely different land availability. The range varies from only 6 hectares to over 300.

The TOD potential is thus, from a macro perspective, impressive. Around the stations of the high-performance train lines in regions with a high demand for housing, there is, however,

an extreme shortage of suitable spaces, which could cause a multitude of conflicts over use. As a result, the areas concerned should be viewed as a valuable future resource. This value requires both an offensive and a cautious planning strategy if the potential is to be realized.

Pursuing Active Property Management

Whether and to what extent a development potential at stations is required in the future for accommodation and work depends on the contemporary demand for residential and commercial space and the future – only limitedly foreseeable – development of the economy and migration. The public authorities should, nevertheless, implement policies of active property management in order to secure development potentials. Setting up a strategic land reserve under public administration would allow a more flexible, pro-active approach in times of growth. Regional and urban land-use planning must consider all relevant aspects if the pre-requisites are to be met for development in such areas. Recommendations include a systematic monitoring

of TOD potential and an on-going evaluation of the mobilisation attempts for such areas. The methodological approach used in this study can be comparatively easily implemented using state-level, freely available public data, and it can be adapted to the regional requirements of planning authorities.

Integrated settlement and transport development beyond the tracks

A further recommendation is related to an improved integration of measures to extend the network and urban development. If new rail lines, reactivation of abandoned rail lines or increased service frequency are planned, these should, from the start, be thought about together with future urban development.

As a final point, it remains to be recorded that the development of transit neighborhoods is an important element in the mobility transition. Relieving the roads and strengthening the economic feasibility of public transport systems play important roles in the success of this future agenda. Successfully implementing TOD projects requires close cooperation between the various state authorities, the transport and other associations, transport companies and local authorities. With programmes such as “Bauland an der Schiene”, NRW has a good starting point, which must be strengthened in the next few years. In doing this, integrated settlement and transport development should, in the future, also be directed at other “axes of sustainable mobility”. In particular fast biking lanes („superhighways“) show great potential in this regard.

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