

# The Density Dividend: solutions for growing and shrinking cities

**Appendix** 

Case study: Dresden

Authors:
Prof Greg Clark
Senior Fellow, ULI Europe

Dr Tim Moonen

Director of Intelligence at The Business of Cities Ltd





### **About ULI**

The Urban Land Institute (ULI) is a non-profit research and education organisation supported by its members. Founded in Chicago in 1936, the Institute now has over 35,000 members in 75 countries worldwide, representing the entire spectrum of land use and real estate development disciplines, working in private enterprise and public service.

ULI has been active in Europe since the early 1990s and today has over 2,200 members across 27 countries. It has a particularly strong presence in the major European real estate markets of the UK, Germany, France and the Netherlands but is also active in emerging markets such as Turkey and Poland.

ULI's mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. The Institute is committed to:

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanisation, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both the built and natural environments;
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

To download information on ULI reports, events and activities, please visit http://europe.uli.org.



#### **About TH Real Estate**

TH Real Estate is an established investment management company, specialising in real estate equity and debt investment worldwide. As one of the largest real estate managers in the world, TH Real Estate has the scale, capital resources and knowledge to provide creative and effective real estate investment solutions for clients. With a focus on the retail, office, logistics, debt and multifamily residential sectors, TH Real Estate emphasises sustainable practices to protect assets and maximise their value.

The company is owned by TIAA-CREF, a US financial services and Fortune 100 company, with \$869bn assets under management\*. Launched in April 2014, TH Real Estate has a dedicated global presence with offices across America, Asia and Europe, representing c.\$28.5bn\* of real estate assets across c.50 funds and mandates. Together with TIAA-CREF's US real estate assets, the global real estate platform of \$86.6bn\* represents one of the largest real estate investment management enterprises in the world.

www.threalestate.com

\* As at 30 June 2015



#### Copyright ©2015 by the Urban Land Institute.

ULI Europe, all rights reserved. No part of this report may be reproduced in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage and retrieval system, without written permission of the publisher. ULI has sought copyright permission for all images and tables.

# **Contents**

Acknowledgements	iv
This report	
Methodology	iv
Executive Summary	1
History of urban change in Dresden	5
Current trends and future drivers of density in Dresden	11
The enablers and constraints of density in Dresden	13
Dresden examples of 'good' and 'bad' density	15
Future outlook and the journey towards good density	17
Notes and References	21

# **Acknowledgements**

The preparation of this report was supported by a steering group of leading ULI members and staff including: **Kathleen Carey, Rosemary Feenan, Lisette Van Doorn,** and **Clare Game**. The authors are very grateful for their guidance and support.

The authors wish to thank all those who have participated in the ULI workshops, and those who contributed their ideas, knowledge and opinions. A list of those who gave exceptional assistance to the development of the case studies is listed on page 30 of the summary report.

# This report

ULI Europe has identified *density* as a major theme for its content programme. This report is the second of a series of studies into the impact, implications and importance of density in today's cities.

The first report, *Density: drivers, dividends and debates (June 2015)*, examined what we mean by the term *density*, and explored the long term benefits density offers to people, the environment and on investments. This was done through consultation with ULI members, city experts, and industry leaders.

This report explores the question of density and urban change by looking more closely at the experience of six European cities. It examines how density may play a role in helping cities in cycles of growth or shrinkage to adapt, prepare and succeed in the future. The six case study cities — **Birmingham**, **Dresden**, **Istanbul**, **London**, **Stockholm** and **Warsaw** — cover a wide span of population trends, political frameworks and spatial evolutions. Together they offer many lessons for cities in different cycles of development.

# Methodology

For this report, we initially undertook historical research on each of the six cities to understand the development path they have taken and what this means for the appetite of their residents and leaders for city living and future densification. Then, we developed detailed case studies for each of the six cities, which each identify the key drivers, enablers and attitudes to densification, and feature timelines of change. We identified and spoke with four to six specialists in each city – including city planners, academics, architects and development professionals – in order to clarify and calibrate these cases.

The case studies were used as the basis for discussion with ULI members at workshops that took place in each of the cities, except for Dresden where the workshop took place in Berlin. The feedback from the workshops was used to update and improve the case studies as well as to inform the summary report.

### **Authors**

The authors of the report are **Prof Greg Clark**, Senior Fellow at ULI Europe, and **Dr Tim Moonen**, Director of Intelligence at The Business of Cities Ltd.

### **Executive Summary**



Dresden has a unique story of spatial change: a destroyed and nearly uninhabited inner city in 1945, combined with 45 years of East German rule that saw numerous standardised pre-fabricated housing blocks built. This legacy meant that Dresden avoided some of the sprawl effects experienced by other Western European cities, and has a very low share of single family housing.

Over the last 25 years Dresden has had to face the phenomenon of urban shrinkage across large swathes of the city and surrounding region. A large minority of neighbourhoods have been losing population and density. Most of these de-populating areas are on the outskirts, and many of them have lost over a quarter of their residents. As a result of this de-population, Dresden faced a risk of being seen as a 'ghost town' and developing a negative psychology of being a 'deserted city'.

Dresden is now consolidating at a population lower than its historic high. In 2015, it is one of the few growing cities in East Germany, thanks to a mix of high birth rates, and in-migration from the wider region and beyond. Its micro-electronic sector and applied research specialisms are attracting a broad range of companies, and generating critical mass. Forecasts suggest that this demographic spike may well be temporary and will need to be effectively leveraged in order to re-engineer the city.

For a city that was shrinking and is now consolidating, density is a tool for Dresden to achieve urban flair and liveability, and environmental sustainability. The aim is to consolidate land uses around specific assets and locations in order to foster dynamism, despite an under-used built environment. Its historic core has once again become highly attractive to residents across the region and further field. The reconstruction of sites such as the Frauenkirche has become synonymous with a cultural and liveability rebirth, and has increased footfall in a previously quiet city centre.

CITY 0.54 million 711% since 2000 Population 1,650/sq km Very Low Density **FUNCTIONAL URBAN AREA** Population 0.85 million **7**4% since 2000 Density 490/sq km Very Low **BIGGEST** Admin 8 support SECTOR **CHANGES** SINCE

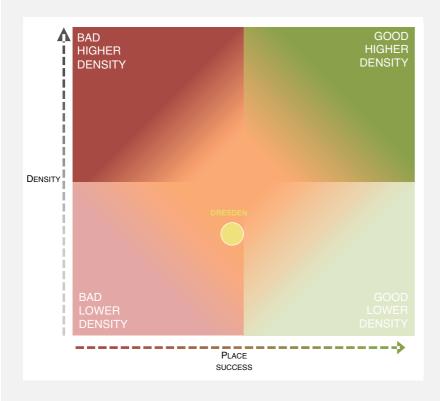
1998

Source: OECD (2013); LSE European Metromonitor (2015);

City of Dresden 2014 (Kommunale Statistikstelle)

Figure 1 Population, economy and density in Dresden's city limits and functional urban area

Figure 2 Dresden's current density profile



Areas such as Neumarkt and Äußere Neustadt have successfully experimented with period re-construction of modern, high quality homes at medium densities, while in Postplatz mixed-use buildings are being developed in step with Dresden's vernacular. In these areas, **Dresden is densifying without building high rise.** Nearly all city centre development conforms to an informal maximum height of about 23 metres in keeping with the city's heritage. What has emerged is a medium density built environment in a wider city that has very large unallocated green spaces and many empty sites.

The ability of the City of Dresden to invest in the quality that can pave the way for more compact development has been enabled by the decision 10 years ago to sell off its entire social housing stock to pay off all the city debts, and simultaneously to become much more pro-active in urban restructuring. This has given financial scope for the city to overcome land ownership complexity by purchasing large landholdings and demolishing sites in order to re-sell to productive companies or to private developers. A system of state, federal and EU subsidies provides vital bridge funding to support this process of consolidation.

Figure 3 Dresden's ingredients to achieving progress on density

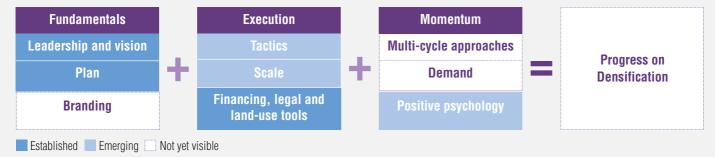
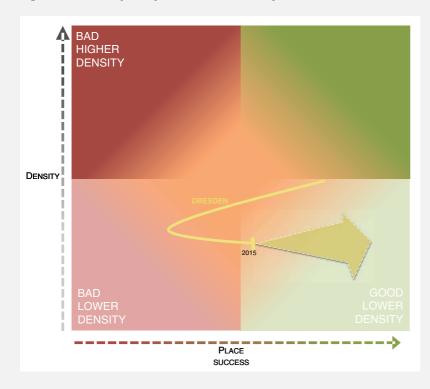


Figure 4 Dresden's journey towards better density



In addition to these financing tools, Dresden benefits from a robust plan for integrated development, underpinned by a positive vision and debate about the future (see Figure 3). City leaders have used effective tactics about where and how to densify, identifying a good mix of locations, and in most cases have successfully sequenced development with infrastructure, finance and place marketing. There is also a strong grasp of the need for scale and a critical mass of amenities on new sites. What Dresden now needs is the branding and promotional language around the next cycle of densification, and an economic strategy to induce demand.

#### Dresden's density outlook

Dresden benefits from still having many empty or under-used spaces available for development in central locations. Its new strategic plan to 2025 identifies more than 10 areas for densification in the inner ring around the city centre, as well as areas for managed decline further out. In the much longer term the city has many fringe locations which are able to grow in a more compact way by filling existing gaps.

In this next cycle, new areas and new innovations are being explored. The area close to the inner city district of Friedrichstadt is a key priority for mixed-use redevelopment. A plan for Dresden's own version of HafenCity in Hamburg also aims to steer new family friendly activity along the River Elbe next to Neustadt Port. At the same time, options to bring underground streams back to the surface are being looked at.

The City of Dresden's commitment to house growing numbers of refugees and asylum seekers presents dilemmas about to how to prevent over-concentration of potentially lower-skilled or poorly integrated newcomers. Appetite for density in Dresden is limited by citizens who are accustomed to space around them. Some political opposition to development is growing. As demand grows and the costs of living and housing rise, new strategies will be needed to prevent counter-productive spillover development in surrounding cities and municipalities.

Dresden has shown how a shrinking city can consolidate and renew its liveability, but in the next cycle it will need a stronger focus on competitiveness. A bigger and higher value innovation economy, and a more dynamic visitor economy, would help serve Dresden's ambitions to become a more open, prosperous and sustainable city.

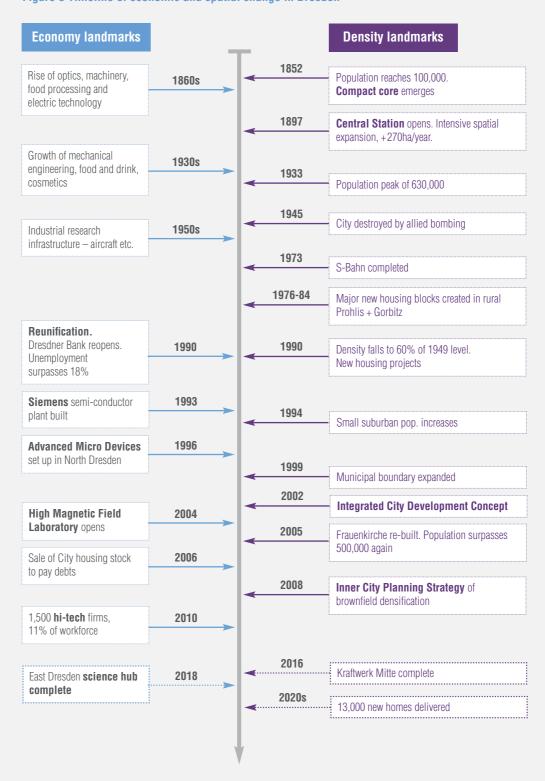


Figure 5 Timeline of economic and spatial change in Dresden

# History of urban change in Dresden



#### 2.1 A city shaped by industry, politics and war

A royal and cultural capital, Dresden's 19th century spatial development was significantly shaped by the industrial revolution. From its historically compact core along the Elbe, the city spread outwards with the rise of light manufacturing such as optics, machinery and food processing.

The trajectory of Dresden's growth was dramatically halted by the events of the Second World War. The city endured intense allied bombings in 1945 which all but destroyed the built environment and economy. The damage left a spatial and architectural blank slate for the post-war regime.

When Dresden was absorbed into socialist East Germany, numerous large housing estates were constructed, mostly outside the historic centre. The city itself did regain its status for industrial research, but despite the initial post-war recovery, Dresden's population soon went into long-term decline. Between the mid 1950s and the end of the 1990s, the city lost 10 percent of its population, as

Dresden's fastest period of surface expansion was from 1880 to 1900, when 270 hectares of land a year were added to the city.

people moved out and birth rates declined.<sup>2</sup> The lack of investment and maintenance in the housing stock and public spaces deterred many residents from living in the inner city.

# 2.2 Dresden's fall and rise Against some predictions, Dresden's population continued to fall after German re-unification.

High unemployment drove rapid out-migration to western parts of Germany, while birth rates also fell. Although small suburban population gains began to be recorded in 1994, the core continued to decline.<sup>3</sup> In the eight years from 1989, Dresden lost well over 10 percent of its population, with the city centre and inner-belt most affected.<sup>4</sup> The city witnessed record high housing and office vacancies as well as significant infrastructure oversupply.







Figure 7 The Prager Straße, in the core of the CBD, in 1991, with the town hall top left<sup>5</sup>

Source: SLUB/Deutsche Fotothek, Photo: Siegfried Bregulla.

Amid growing public debate about where the city was heading, Dresden's 1994 development plan continued to make optimistic assumptions about population stabilisation and growth. City authorities began to embark on a series of large-scale retail, commercial and then housing projects in the outskirts. The late 1990s witnessed an upsurge in housing completions, reaching 5,000 homes annually, despite the ongoing decline. This trend was largely replicated across East Germany at the time, as population shrinkage remained a political taboo. Institutions remained geared towards growth but the numbers were telling a different story.<sup>6</sup>

At the same time, the leadership of Saxony premier Kurt Biedenkopf and economy minister Kajo Schommer was influential in accelerating Dresden's transition to the new economy. One important landmark for the city's economy was the arrival of Infineon's semi-conductor plant in 1994, which heralded a new cycle of economic diversification. The federal and state-supported micro-electronics, IT and biotech sectors began to fill the vacuum of a dwindling industrial and public sector base in the late 1990s. The City supported their development in the outskirts.

Meanwhile renovations began in the Baroque centre and historic core with the aim of recovering some of the city's pre-war layout and architecture. This made it much more attractive once again to live in the city centre. The City also managed to incorporate a new VW plant in the centre thanks to careful architecture and design. Dresden's ability to renew its historic neighbourhoods during the peak of population flight and suburban over-development is now widely viewed as a remarkable achievement.

1790 1880 1900 1900 1908 1998 1998

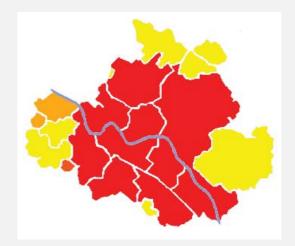
Figure 8 Dresden's spatial footprint over time7

The State of Saxony made a major decision to expand Dresden's municipal boundaries to account for the new spatial character of the conurbation. Nine neighbouring municipalities and 34,000 extra residents were incorporated into the city, adding nearly 50 percent to its territory. Vacancy rates of 20 percent were typical by 2000, and numerous brownfield sites in the historic centre remained undeveloped.

#### A return to growth

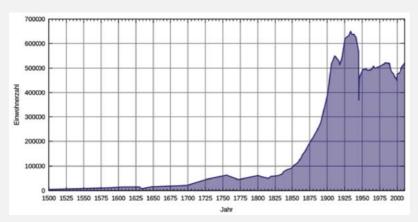
Dresden's population finally started growing again at the turn of the century — although this time growth was concentrated in the city centre, not the suburban counties (landkreise). At first, areas in the inner belt (just beyond the city core) which benefited from the strongest growth rubbed up against districts that were still in decline. In recent years, the pattern of growth has evened itself out across the inner city.

Figure 9 1999 expansion of new territories (yellow)<sup>8</sup>



By the early 2000s, the German federal government had begun to identify and plan for a long-term demographic decline. Dresden's spatial policy became geared towards urban restructuring, supported by federal subsidies and European Regional Development Funds. With this money, vacant housing and poor quality developments were torn down in large numbers up to 2005.<sup>10</sup>

#### Figure 10 Dresden population change over time



Source: Statistisches Landesamt Sachsen; Dresden Statistik & Geodaten

A new approach to density and re-urbanisation

Dresden's new policy framework was enshrined in the 2002

Integrated City Development Concept for Dresden,
a new kind of strategic plan for the city that was a
precondition for federal funding for building demolition.

The Concept advocated the concentration of investment,
population and economic activities in the city centre.

It planned to bring forward only 1,000 new housing units
per year (mostly town houses) far lower than the historic
trend. The aim was to strengthen Dresden's appeal as a
compact and sustainable European city, with a high quality
of life and design.

The city earmarked central brownfield sites to be tailored for private redevelopment — to move residential and commercial investment away from the suburbs. In 2006 the City sold its entire municipal housing stock of 47,000 apartments to private equity firm Fortress, using the \$1.75bn windfall to pay off its debts. A database was set up to highlight the high potential locations for residential growth. A new management system (*Wohnbauflächenmanagement*) improved the cooperation between building contractors and private interest groups

for large-scale neighbourhood development projects in

the inner-city.

Figure 11 The old and new faces of Prager Zeile 13



Photo by: Paulae. Licence: Creative Commons by 2.0



Photo by: Craig Wyzik, Olympia, WA. Licence: Creative Commons by 2.0

Dresden has undertaken many housing renovations that maintain higher density patterns set during the socialist period. The 240 metre long modernist Prager Zeile was originally the largest residential building in East Germany when constructed in the 1970s (see Figure 10). Renovation of its 614 flats began in 2007 and more than 90 percent of the dwellings were kept, including a segmented offer of student apartments, pensioner-friendly homes and luxury penthouses. This is one example of Dresden's success in cultivating a diversified housing offer, facilitated by several housing co-operatives which are among the largest providers of apartment living in the city.

The 2008 Inner City Planning Strategy cemented the city's new commitment to favour brownfield development, a diverse land use mix that boosts vitality and security, and district centre development that offers room for creative industries and other kinds of economic development. The Plan noted that "building development in the inner city and its adjoining districts will remain moderate", with a strong focus on quality and vibrancy.<sup>14</sup>

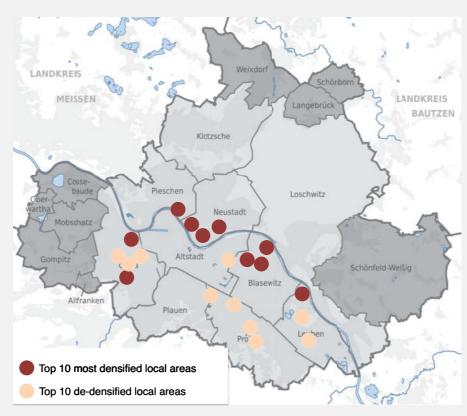
Since its low point in the 1990s up to the present day, the city's population (excluding the incorporation) has increased by 65,000, but remains well below its historic

Figure 12 Dresden's 2008 Inner City Strategy



peak of 630,000.<sup>15</sup> De-populating neighbourhoods have lost a combined 50,000 people in the last 25 years.<sup>16</sup> Most of these de-populating areas are on the edges of the city, and many of them have lost over a quarter of their residents. This decline has however been more than compensated by the densification in inner city areas, with seven districts adding more than an extra 1,000 people per sq km since 1990.

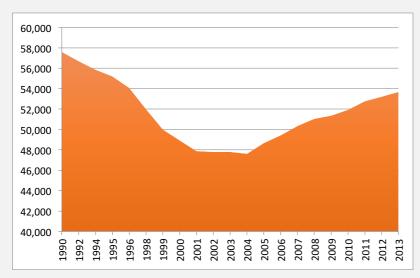
Figure 13 Changing patterns of density in Dresden, 1990 to 2013<sup>17</sup>



#### **Dresden today**

Dresden's historic core has once again become highly attractive to residents. The reconstruction of sites such as the Frauenkirche has become synonymous with the city's rebirth and its status as a culturally rich and livable location. International visitor nights have doubled since 2004.<sup>18</sup> The property market has become much more dynamic for residents, project developers and investors, with steady demand for office space and growing footfall in city centre and retail locations. This is reflected in the consistent rise in both commercial and residential rents in the past decade, and by a 60 percent drop in vacancy rates since the 2002 concept plan.<sup>19</sup>

Figure 14 Population change in Dresden Old Town, 1990-2013



Source: Dresden Statistische Mitteilungen Bevölkerung und Haushalte 2014

Dresden's capacity to become a more attractive and compact city is promising because of a number of advantages:

- Nearly 90 percent of dwellings are multi-family residential flats, a product mainly of the socialist era.
- Its distinctive cityscape of Baroque, Wilhelminian, garden suburb and modern architecture, much of which has access to the River Elbe, provides an important sense of place.
- Most of Dresden's recent retail development (in Neumarkt, Altmarkt, Seestraße, Prager Straße, etc), has taken place in the city centre, unlike in other German cities. Total retail space has nearly doubled since 1995.<sup>20</sup>
- Many of its redevelopment projects, such as Neumarkt, are experimenting with period re-construction of modern, high-quality and high-density homes.
- Neustadt neighbourhood has emerged as a hotspot for younger creative professionals which can absorb further growth.
- Dresden has many city fringe locations which are able to grow in a more compact manner by filling existing gaps in the urban fabric, such as Schönfeld/Weißig, Klotzsche, Langebrück, Strehlen and Leubnitz-Neuostra.

# **Current trends and future drivers of density in Dresden**



The pace of population growth in Dresden remains modest compared to other growing European cities. But the flexibility of the City's spatial plan, which advocates concentration and the preservation of green space, is allowing it to adapt to different growth trends.

- The emergence of new higher value economic **sectors** has been critical to Dresden's inner city densification. The city has specialisations in micro and nano-electronics, nanotechnology, photonics, biotechnology, advanced materials, and other advanced manufacturing technologies. In 2014, the manufacturing of computers, electronics and optical products generated a turnover of nearly € 2.6bn, more than any other industry in the manufacturing sector, and almost 40 percent the total turnover of the local industrial base.<sup>21</sup> It now combines global firms such as Global Foundries and GSK, with international SMEs such as Xenon Automatisierungstechnik and Theegarten-Pactec, and numerous local SMEs and micro-firms. The older industrial sectors of mechanical engineering, aerospace and food have also begun to recover in this more innovation-oriented economy, with engineering's turnover doubling between 2010 and 2014.
- At the same time, and as part of the same process,
   Dresden's transformation into a higher education centre, led by the University of Technology (TU) and the University of Applied Sciences, has attracted new

- population and driven density around the Südvorstadt district. Across the city, the range of Fraunhofer institutes, Max Planck centres and Leibniz institutes, along with other research centres, provides a critical mass that drives clustering. Well over 40,000 students learn across the city's higher education institutions.<sup>22</sup>
- Greater in-migration from Germany, Eastern Europe and China has taken place over the past decade.<sup>23</sup> While international immigration remains limited, today over 5 percent of the population hails from outside of Germany. International arrivals have hovered around 500-1000 per annum mark for much of the past decade. In 2013, foreign migration represented a total of 20 percent of the net inflow. The city recently opened a Welcome Centre for migrants to make it more accessible and welcoming to the high-skilled labour it depends on.
- Dresden now boasts the highest birth rate in Germany, at 112 per 10,000 people (compared to 99 for Berlin).<sup>24</sup>
- Climate protection and adaptation have entered
  the forefront of urban development approaches in
  Dresden, as in many other German cities. The concept
  of the "compact city in the ecological network" aligns
  the agendas of climate protection, resource efficiency,
  climate change adaptation and quality of life as part of
  Dresden's much more integrated policymaking.<sup>25</sup>

**Economic change** Sustainability imperatives Higher value economic Climate protection and **DRIVERS** specialisations; Strength of higher adaptation agenda education and expert institutes Leadership Tools **ENABLERS** Leadership **Infrastructure and connectivity DRESDEN DENSIFICATION BARRIERS** 

Figure 15 Drivers, Enablers and Barriers to Densification in Dresden

# The enablers and constraints of density in Dresden



The City Government, and in particular its highly effective spatial planning and management department has been key to Dresden's ability to respond flexibly to changing population scenarios. The city has invested judiciously in the renovation of key assets and has played a first-mover role that has encouraged the private sector to build attractive medium density housing.

#### **Postplatz**

Postplatz is the western gateway to Dresden's Old Town (Altstadt). For years, it has also been a repository of potentially developable land, including the disused telecoms centre built in the last years of East Germany. The area has now become an integral part of plans to build compact, residential led mixed-used development in city centre.<sup>26</sup>

Figure 16 Postplatz in 2006 before latest phase of development<sup>27</sup>



Photo by Henry Mühlpfordt. License: CC-BY-SA 2.0.

Plans to redevelop Postplatz have been circulating since re-unification, but it is only in the last few years that demand has triggered projects to move forward.<sup>28</sup> Many of the ideas originally submitted in the 1990s have been kept, including the construction of a green promenade ring around the city centre that will have links to Postplatz. What has changed, however, is the zoning policy. Originally mixed-use with a commercial and retail focus, future developments are clearly residential in character, with some leisure, retail, hospitality and commercial space built in.<sup>29</sup>

The project has benefitted from the extension of the Altmarktgalerie commercial zone, the addition of the Zwinger Forum with its hotel and retail facilities and the Wilsdruffer Cube — a commercial and retail outlet. In addition, public transport stops and layouts have been integrated to smooth out access to the area.

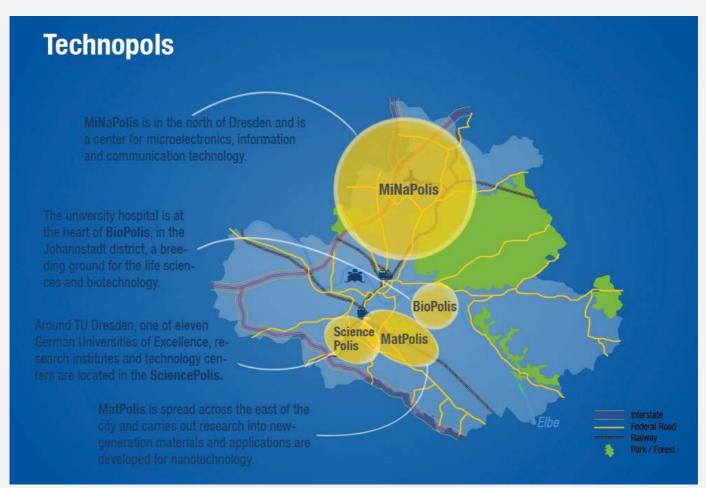
In the coming years, over 1,000 new flats will be built — with mixed-use retail facilities at the base, and commercial floor space higher up.<sup>30</sup> Attention is being paid to Dresden's historic pre-war architecture in the new buildings. Examples include the six to seven storey Prague Carrée, with 17,400 sq m of living space and 5,800 sq m of retail, and Fay Project's proposed building on Wallstraße. The latter was originally intended for commercial uses, but it is now to be residential.<sup>31</sup> The old telecoms centre is also to be torn down, subject to planning approval from the city. When the next phases of construction are complete, the Postplatz will have seen most of its brownfield land re-used in favour of residential densification.

Clustering. The City of Dresden has designated a number of areas across the city for technology sector agglomeration. The aim is to cluster small firms, research institutes and business incubators from similar sectors into close proximity. These districts are located in the south and east of the city, around existing university infrastructure, or in the north of Dresden, where is already a significant ICT and electronics presence.

The BioPolis science cluster has been earmarked for densification and to become a major source of growth. In East Dresden, the new science centre ready by 2018 will be developed on brownfield sites and will concentrate mixed-use social and employment facilities with green spaces, all fully integrated with transport interchanges.

Dresden has good motorway connections to Berlin, Poland and West Germany, but one constraint for its economic development is the slow progress of **rail link upgrades**. The Berlin to Dresden train still takes over two hours, longer than the time it took in the 1930s. The line upgrades have been delayed for over a decade and will still take some years to come on stream. Meanwhile the Free State of Saxony aims to construct a new high-speed line between Dresden and Prague which would halve the travel time to around an hour and improve freight connectivity. This project is a long way off, and still at the feasibility stage, but may have an impact in the future on Dresden as a nodal point connecting northern European and Baltic Sea ports to southern European countries.

Figure 17 Economic growth zones across Dresden 32



Source: City of Dresden

## Dresden examples of 'good' and 'bad' density



Dresden now has many examples where it has redeveloped pieces of the city at higher density and created positive social and economic outcomes. Sites in and around the city centre now have a much more mixed-use character, and are well integrated with trams and metro systems. There has been limited development beyond the brownfield sites of the inner belt.<sup>33</sup> As a result nearly half of trips taken in Dresden are less than three kilometres.<sup>34</sup> Compared to other cities, a small share of journeys in Dresden are taken by car, at just 26 percent.<sup>35</sup>

Recent and future projects in Dresden are centred on mixed-use developments that serve to reinforce its strengths in higher education, high technology industries and culture.

- The Technical University's campus has been earmarked for expansion and redevelopment, with mixed-used residential and retail facilities in its vicinity. Its neighbourhood is proposed as a site for further densification.
- The old power station Kraftwerk Mitte is being adapted into a cultural hub, accompanied by mixed-use developments in its neighbourhood (the Wilsdruffer Vorstadt District — see Box).
- Retail facilities are being concentrated in the city centre along main arteries to stem the trend towards out-of-town or suburban retail. For instance, the Altmarktgalerie has already been expanded, and the high-rise on Albertplatz is adding over 5,000 sq m of retail space in the centre in 2015.

The modest rate of re-population and the large amount of land available have allowed Dresden to combine medium density with plentiful green space. The Elbe is an essential part of the city's ecological approach and is being opened up further to improve the sense of place. Dresden's own 'HafenCity' project is an important example that attempts to optimise riverfront land around Neustadt port. The 50-hectare project is controversial because of concerns that is located in a flood plain, and the Saxony state government has objected to it.

The suburbanisation of business and science parks during the 1990s has contributed to the city's emerging polycentric character. A cluster of science and knowledge parks is in the inner belt and along the routes heading out of the city. The transport system is well adapted to serve its spatial structure, as it combines both radial links to the suburbs, ring-roads, and a dense network of rail and tram lines along which development is concentrated.<sup>44</sup> This helps Dresden to re-engineer its less successful attempts to build housing at high density in the socialist period — including in Prohlis and Gorbitz.

#### Rediscovering density in Wilsdruffer Vorstadt

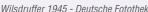
The City of Dresden is investing in the growth of creative and cultural industries as part of its effort to re-establish its status as a business location. One key area for this approach is Wilsdruffer Vorstadt to the west of the city centre, which has come to embody Dresden's redensification of fragmented inner city areas.

Wilsdruffer Vorstadt was a very dense area in the 19<sup>th</sup> century, as one of the major gateways into Dresden, but bombing and destruction meant the area no longer resembled its old settlement pattern in the late 20<sup>th</sup> century. By 1990, the district was splintered and was home to numerous informal parking lots.

Over the past 20 years, the City has sought to re-populate the area by consolidating the city's cultural institutions there. Real estate firm USD Immobilien GmbH has played a key role in overseeing residential densification along key roads such as Freiberger Straße. The area combines 10 storey blocks with smaller three- and four-storey developments offering diverse housing that is well integrated into semi-public, traffic-free and green play areas. High quality residential buildings that fit in with Dresden's architectural vernacular are key to the identity and attraction of the area. Part of the historic but long-dormant Herzogin Garten is now also being converted into a six-storey building complex with 105 apartments. The area combines 10 storey blocks with smaller three- and four-storey developments offering diverse housing that is well integrated into semi-public, traffic-free and green play areas. The area combines 10 storey blocks with smaller three- and four-storey developments offering diverse housing that is well integrated into semi-public, traffic-free and green play areas. The area combines 10 storey blocks with smaller three- and four-storey developments offering diverse housing that is well integrated into semi-public, traffic-free and green play areas. The area combines 10 storey blocks with smaller three- and four-storey developments offering diverse housing that is well integrated into semi-public, traffic-free and green play areas.

Figure 18 Three generations in Wilsdruffer Vorstadt; 1950<sup>38</sup>, 1962<sup>39</sup> and 2015







Wilsdruffer 1961 - Deutsche Fotothek



Today part of the Wilsdruffer Vorstadt is being labeled the 'musicians district' thanks to the construction of the High School of Music and Chamber Music Hall. Old power station buildings known as *Kraftwerk Mitte* are being transformed into a cultural quarter that will house the Dresden State Operetta and the Theater Junge Generation — a youth theatre.<sup>40</sup> The City subsidised estimated clean-up costs of €10 million with €3 million of urban development funds, which will also enable reduced rents for future users in the cultural and creative industries. Federal funds are also essential for some of the public space upgrades.<sup>41</sup> The project will eventually house office, studios and retail facilities to create a mixed-use environment conducive to the sharing of public space and knowledge.<sup>42</sup>

The rehabilitation of these industrial brownfield sites is part of a broader effort to solidify the neighbourhood's potential as a cultural and creative cluster. The whole area benefits from integration into existing public transport routes, and walkability to the city centre.<sup>43</sup>

# Future outlook and the journey towards good density



Dresden is successfully riding the wave of an unexpected cycle of re-urbanisation. Big

improvements in place-making have made the historic city centre more appealing and vibrant once again, and a decade of more integrated planning has consolidated Dresden's ongoing growth. At the same time its computer chip specialisation and other high value technology capabilities have the potential to become the core of a higher value economy which will be necessary in the next cycle.

A decade of strong growth is now factored in to Dresden's demographic assumptions and spatial plans, and the city intends to use it as an opportunity for more consolidation in tandem with a preserved network of green spaces. The City projects that an extra 13,000 new homes will be needed by 2025 should current trends continue, mainly to serve students, young families and pensioners. The current 'red-red-green' (The Left-SPD-Greens) majority Council is strongly in favour of this process of consolidation.

Dresden's many brownfield sites provide a very useful source of development flexibility over the next decade. The city's 2025 strategic plan identifies more than a dozen priority areas for development, mostly in a ring around the city centre and to the south east of the city. This is where population growth and the pickup in real estate demand will continue to be concentrated.<sup>47</sup> Over the next decade the western district of Friedrichstadt stands out as the major centre for development that combines housing, cultural assets, daycare centres and business activity.

One key challenge for Dresden is how the city will continue to absorb growth if and when these brownfield locations become exhausted. Although a positive psychology of enjoying density is visible in some districts, evidence from the city's organised forum to discuss Dresden's direction suggests that there appears to be growing opposition to building density in locations on the fringes of the city centre, and concerns about affordability and inclusiveness (Figure 20). If Dresden is to succeed in its ambitions to become a city, it will need ways to overcome political challenges and controversies that surround compact development.

Figure 19 Fundamentals of success for good density in Dresden

	Durable city plan	Fiscal autonomy and flexibility	development strategy	Metropolitan planning approach beyond city borders	District agencies and development corporations	National planning and policy framework for cities
Dresden	**	**	**	**	**	***

<sup>\*\*\*</sup> Established \*\* Partly visible \* Not strongly visible or developed

#### Figure 20 Perspectives on Dresden's Future Density

#### Set a maximum growth target

"Dresden is growing. For this we should be glad. But if we are to have a strategic approach to our urban development, it is helpful if Dresden agrees on a target for how many residents to be here. Should Dresden be New York? Urban development should strive not to allow the city to grow larger than 600,000 inhabitants. Unlimited population growth creates disadvantages due to excessive density and disadvantages for the surrounding Saxon municipalities, which are already losing too many people to Dresden. Dresden is only sustainable if there are successful cities and villages around it in the Elbe Valley region, with which Dresden is economically linked. The city council should bring forward measures to curb an overgrowth of population and also to set braking incentives, if this is necessary to meet the target."

#### Create more spaces to enjoy and rest

"Throughout the old town there is not a single public place, besides the park around the Zwingerteich, which really invites you to linger and take a deep breath. Especially in southern Europe, there are secluded spots in the middle of the inner cities secluded with shady trees, a bubbling fountain and even cute cafes. Such spaces should be urgently provided amid the further densification of downtown. Both Dresdeners and tourists would benefit from it."

The Future of Dresden debate 2025<sup>49</sup>

#### The Future of Dresden debate 2025<sup>48</sup>

#### Preserve Dresden's character

"I was somewhat startled to read that further densification for Neustadt is planned. This means basically that the last gaps between housing will disappear, and possibly even the beer gardens (Louisenstraße, Katie's Garage, etc.) will have to give way to new buildings when the market is mature... of course this is understandable due to the demand for housing. Nevertheless, one should try to preserve the character of the neighborhood and keep it green, and protect that which makes life worth living in a city."

#### The Future of Dresden debate 2025<sup>50</sup>

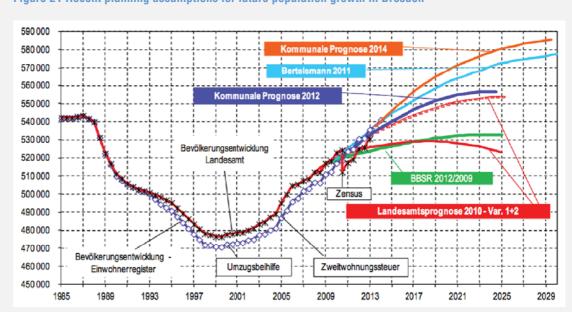
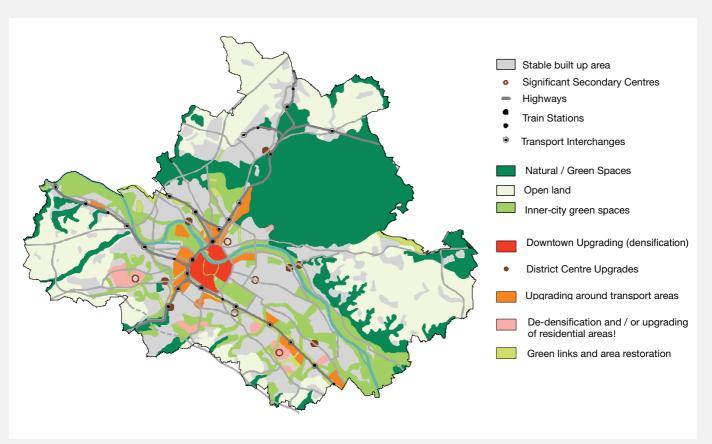


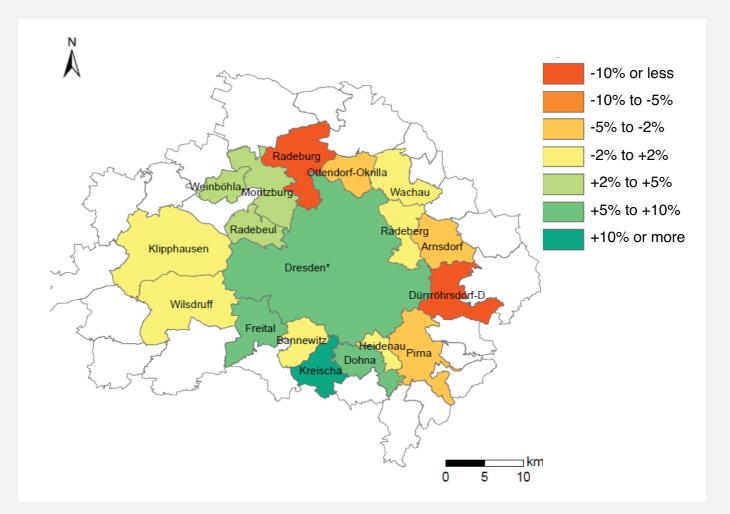
Figure 21 Recent planning assumptions for future population growth in Dresden<sup>51</sup>

Figure 22 Plan for Dresden's spatial development 52



For Dresden to maintain momentum towards good density in the next cycle, the city will need a strategy for future cycles of demand which may involve wholly new sites and stronger advocacy for densification. There is still a strong risk of future suburbanisation as Dresden's older population drives housing demand at the fringes of the city and in surrounding municipalities. The Erlebnis Region, an informal collaboration of Dresden and the ring of districts around it, predicts significant growth in southern areas such as Kreischa, Dohna and Freital while other areas stagnate or shrink. Dresden will need to foster the momentum to allow enthusiasm for density to endure.

Figure 23 Forecast residential development up until 2027 in the Dresden region 53



There is some positive psychology around Dresden's reurbanisation so far. Many residents are proud and supportive of the good access to the Elbe, the mix of city and countryside, the relative affordability, the youthfulness and university orientation of the city, and the infrastructure and public transport connections. In future Dresden will need to allay resident concerns that densification might reach a threshold that will threaten liveability and access to family housing, by ensuring city life stays attractive, affordable, safe and enjoyable.

### **Notes and References**

- <sup>1</sup> Thinh, N. X. (2003): 'Contemporary Spatial Analysis and Settlement of the Dresden City Region', in Gnauck, A. and Heinrich, R. (eds), The Information Society and Enlargement of the European Union: 17th international conference, Informatics for Environmental Protection: Part 1: Concepts and Methods, pp. 253-261
- <sup>2</sup> Kasanako, M. et al, (2005), 'Are European Cities becoming more dispersed? A comparative analysis of 15 European Urban Areas', Landscape and Urban Planning, 77: 111-130.
- <sup>3</sup> Glatter, J. and Siedhoff, M. (2008), 'Reurbanisation: Inflationary use of an insufficiently defined term? Comments on the definition of a key concept of urban geography, with selected findings for the City of Dresden', Die Erde, 199 (4), pp. 289-308.
- <sup>4</sup> USER (2014), Dresden: In Dialogue about Urban Transformation: Opening Space for People along with redensification.
- <sup>5</sup> www.moderne-regional.de/wp-content/uploads/Dresden09\_Prager\_Strasse\_Luftschraegaufnahme\_1991\_Bild\_SLUB\_Deutsche-Fotothek\_Foto\_Siegfried\_Bregulla.jpg
- <sup>6</sup> Wiechmann, T. (2008), 'Errors expected Aligning urban strategy with demographic uncertainty in shrinking cities, International Planning Studies, 13:4, 431-446.
- www.dresden.de/media/pdf\_neu/stadtplanung/stadtplanung/spa\_FNP\_E\_Beiplan02\_Siedlungsentwicklung.pdf
- 8 https://de.wikipedia.org/wiki/Entwicklung\_des\_Stadtgebiets\_von\_Dresden
- <sup>9</sup> Glatter, J. and Siedhoff, M. (2008), 'Reurbanisation: Inflationary use of an insufficiently defined term? Comments on the definition of a key concept of urban geography, with selected findings for the City of Dresden', Die Erde, 199 (4), pp. 289-308; Wiechmann, T. (2008), 'Errors expected Aligning urban strategy with demographic uncertainty in shrinking cities, International Planning Studies, 13:4, 431-446.
- 10 Ibid.
- <sup>11</sup> Landeshauptstadt Dresden (2002), Teil II: Integriertes Stadtentwicklungskonzept (INSEK) Kurzfassung.
- 12 www.spiegel.de/international/beware-the-locusts-public-housing-sell-offs-on-the-rise-in-germany-a-446415.html
- 13 https://de.wikipedia.org/wiki/Prager\_Zeile
- 14 https://www.dresden.de/media/pdf/stadtplanung/stadtplanung/spa\_Leitb\_DD\_Leitbild\_Kurzfassung\_englisch\_Internet.pdf
- <sup>15</sup> USER (2014), Dresden: In Dialogue about Urban Transformation: Opening Space for People along with redensification.
- 16 www.dresden.de/media/pdf/statistik/Statistik\_1210\_18-19\_E2012\_Dichte\_nach\_ST.pdf
- <sup>17</sup> www.dresden.de/media/pdf/statistik/Statistik\_1210\_18-19\_E2012\_Dichte\_nach\_ST.pdf
- <sup>18</sup> The City of Dresden (2014), Dresden, City of Excellence. Facts · Figures · Background information on the property location.
- <sup>19</sup> The City of Dresden (2013), Future Foundations in Dresden: The Dresden Real Estate Market 2013. Factures, Figures, Context; The City of Dresden (2014), Dresden, City of Excellence. Facts · Figures · Background information on the property location.
- <sup>20</sup> The City of Dresden (2013), Future Foundations in Dresden: The Dresden Real Estate Market 2013. Factures, Figures, Context; www.dresden.de/media/pdf/onlineshop/statistikstelle/Bevoelkerung\_und\_Haushalte\_2013.pdf
- <sup>21</sup> https://www.dresden.de/media/pdf/statistik/Statistik\_4413\_VerarbGewerbe\_2013\_WZ.pdf
- <sup>22</sup> Wiechmann, T. (2008), 'Errors expected Aligning urban strategy with demographic uncertainty in shrinking cities, International Planning Studies, 13:4, 431-446.
- <sup>23</sup> The City of Dresden (2013), Future Foundations in Dresden: The Dresden Real Estate Market 2013. Factures, Figures, Context; www.dresden.de/media/pdf/onlineshop/statistikstelle/Bevoelkerung\_und\_Haushalte\_2013.pdf
- <sup>24</sup> Ibid.
- <sup>25</sup> www.klimabuendnis.org/fileadmin/inhalte/dokumente/MV2015/MV2015\_dresden\_korndoerfer.pdf

- <sup>26</sup> The City of Dresden (2014), Dresden, City of Excellence. Facts · Figures · Background information on the property location; The City of Dresden (2008), Spatial Vision; The City of Dresden (2013), Future Foundations in Dresden: The Dresden Real Estate Market 2013. Factures, Figures, Context
- <sup>27</sup> www.sz-online.de/nachrichten/fast-1000-neue-wohnungen-am-postplatz-3041109.html
- <sup>28</sup> www.sz-online.de/nachrichten/kommentar-die-lange-planung-zahlt-sich-aus-3041107.html; https://www.dresden.de/de/stadtraum/brennpunkte/post-platz.php
- <sup>29</sup> www.sz-online.de/nachrichten/fast-1000-neue-wohnungen-am-postplatz-3041109.html; www.sz-online.de/nachrichten/neue-projekte-fuer-den-postplatz-3092785.html;
- 30 www.dimag-dresden.de/news/detail/2015/02/24/fast-1-000-neue-wohnungen-am-postplatz.html
- 31 www.mpp.de/projekt/prager-carr-e-dresden/; www.sz-online.de/nachrichten/neue-projekte-fuer-den-postplatz-3092785.html
- 32 www.dresden.de/en/business/location/business-parks-and-industrial-estates.php
- 33 The City of Dresden (2008), Living History, Urban Townscape. Dresden Inner City Planning Strategy 2008 Summary.
- 34 www.dresden.de/media/pdf/mobilitaet/POLIS\_DD\_focus\_english.pdf
- 35 Ibid.
- 36 https://www.dresden.de/media/pdf/stadtplanung/stadtplanung/spa\_download\_spa\_Broschuere\_WilsdrufferVorstadt\_Einzelseiten.pdf
- 37 www.sz-online.de/nachrichten/bagger-rollen-am-herzogin-garten-3075319.html
- 38 https://commons.wikimedia.org/wiki/File:Fotothek\_df\_roe-neg\_0002586\_004\_Blick\_von\_der\_Kreuzkirche\_in\_Richtung\_Wilsdruffer\_Vorstadt,\_Bauar-beiter\_auf\_eine.jpg
- 39 https://commons.wikimedia.org/wiki/File:Fotothek\_df\_ps\_0002875\_Aufbau\_%5E\_Neubauten.jpg
- 40 www.kraftwerk-mitte-dresden.de/de/standort\_vision.php
- 41 www.sz-online.de/nachrichten/dem-kulturkraftwerk-geht-ein-licht-auf-2960135.html
- <sup>42</sup> The City of Dresden (2014), Dresden, City of Excellence. Facts · Figures · Background information on the property location; The City of Dresden (2008), Spatial Vision; The City of Dresden (2013), Future Foundations in Dresden: The Dresden Real Estate Market 2013. Factures, Figures, Context
- 43 www.kraftwerk-mitte-dresden.de/de/standort-vision/vision/infrastruktur-mobilitaet.php
- <sup>44</sup> Landeshauptstadt Dresden (2002), Teil II: Integriertes Stadtentwicklungskonzept (INSEK) Kurzfassung; The City of Dresden (2008), Living History, Urban Townscape. Dresden Inner City Planning Strategy 2008 Summary.
- <sup>45</sup> The City of Dresden (2014), Dresden, City of Excellence. Facts · Figures · Background information on the property location.
- <sup>46</sup> www.bild.de/regional/dresden/bauprojekte/stadt-baut-wohnkloetze-in-gruener-idylle-41227852.bild.html
- <sup>47</sup> The City of Dresden (2008), Spatial Vision; The City of Dresden (2013), Future Foundations in Dresden: The Dresden Real Estate Market 2013. Factures, Figures, Context; The City of Dresden (2014), Dresden, City of Excellence. Facts · Figures · Background information on the property location.
- <sup>48</sup> City of Dresden (2014). 'Dresdner Debatte: Zukunft 2025'. http://dresdner-debatte.de/sites/default/files/result-downloads/abschlussbericht\_dresdner\_debatte\_zukunft\_2025plus\_final\_januar\_2015.pdf
- <sup>49</sup> ibid
- <sup>50</sup> ibid
- <sup>51</sup> City of Dresden (2014). 'Statistische Mitteilungen'. https://www.dresden.de/media/pdf/onlineshop/statistikstelle/Bevoelkerungsprognose\_2014.pdf
- 52 https://www.dresden.de/de/08/01/stadtentwicklung/c\_010.php
- 53 www.erlebnisregion-
- $dresden. de/tl\_files/erlebregdd/downloads/projekte/Regionale\%20 Wohnbauflaechennach frage/Projekte\%20 WBP\%20 Ergebnisse\%20 Maerz 2015. pdf$