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# Errors Expected — Aligning Urban Strategy with Demographic Uncertainty in Shrinking Cities<sup>†</sup>

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**ABSTRACT** *At the beginning of the 21st century, the majority of Europe's cities experienced a population decrease. Dealing with the results of demographic, economic and physical contraction processes and planning for the future of considerably smaller but nevertheless livable cities presents some of the most challenging tasks for urban Europe in the near future. This article highlights the example of Dresden in Eastern Germany, where the breakdown of the state-directed economy caused economic decline, industrial regression, and high unemployment rates. Due to out migration and decreasing birth rates, the city lost 60,000 of its 500,000 residents within one decade. As a consequence, there were housing and office vacancies as well as infrastructure oversupplies. Yet the administrative system was still directed towards growth objectives throughout the 1990s. Only after 2000 this situation changed dramatically. The new strategic plan for Dresden is no longer growth oriented. Instead, it focuses on a model of the compact 'European city', with an attractive urban centre, reduced land consumption, and a stable population. However, in another unexpected turn of events, within the last seven years the city has experienced an unexpected growth of 25,000 residents. Surprisingly, processes of suburbanization have turned into processes of reurbanization. Today in Dresden, areas of shrinkage and decline are in close proximity to prospering and wealthy communities. The strategic challenge is to deal with this patchwork while accepting that the future remains unpredictable. Hence, strategic flexibility becomes more important than the strategy itself. To a certain extent rational analysis and error prevention is displaced by preparedness, robustness, and resilience as key qualifications of planning in shrinking cities.*

## **Shrinking Cities in Europe — A Challenge to Planning**

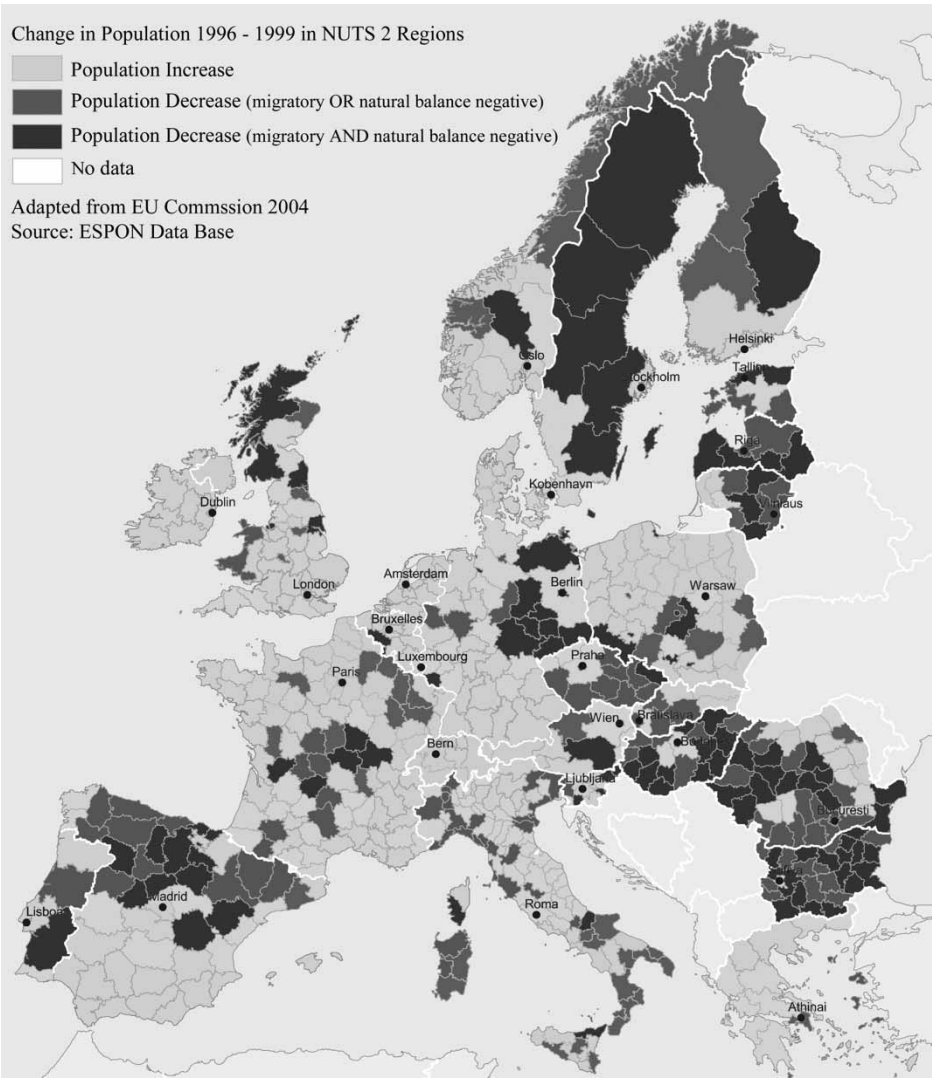
In current planning debates the term 'shrinking city' usually describes a densely populated urban area that has on the one hand faced a population loss in large parts and is on the other hand undergoing economic transformations with some symptoms of a structural crisis (Pallagst *et al.*, 2008). According to Oswalt and Rieniets (2006) more than a quarter of

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the world's metropolises shrank in the 1990s and this will continually increase, notwithstanding the ongoing urbanization processes. However, shrinking cities do not occur everywhere. They pool in certain areas, like the US-American rustbelt, Japan and in particular in Europe. Most European countries see an increasingly ageing population and internal migrations from backward areas to more competitive locations. Between 1995 and 1999, the highest annual loss of population in relative numbers was recorded in northern Finland, in central and northern Sweden, and in large parts of the Central and Eastern European states. Substantial losses of population also took place in southern Italy, northern Spain, the central regions of France, Scotland, and in the Alentejo in Portugal (EU Commission, 2004) (Figure 1).



**Figure 1.** Change in population in Europe 1996–1999.

Today, Europe possesses four main types of shrinking regions (Wiechmann, 2003):

- (1) Western European industrial agglomerations in economic decline (e.g. Ruhr, Mersey Side, Pays Noir)
- (2) Peripheral, sparsely populated depopulation areas (primarily northern Sweden, eastern Finland and Scotland)
- (3) Transformation regions with serious industrial regression (large parts of Russia and the Central and Eastern European states)
- (4) Rural emigration areas with a rapid decrease of births (e.g. parts of Spain and Italy).

Granted that recent trends in birth and death rates and in migration patterns continue, the population of the European Union will — according to calculations of the EU Commission — stay relatively stable until 2020, because the natural population decrease from 2008 on will be compensated for some years by a net immigration (primarily to Germany, Spain, Italy, and the UK). Only after 2020 the forecasts expect a Europe-wide decrease in population, which will not be compensated by immigration (EU Commission, 2004).

According to the urban audit — a European database for comparative analysis of EU cities — out of 220 large- and medium-sized European cities, 57% lost population in the period from 1996 to 2001 (EU, 2007) (Table 1). Included in this list are, among others, 22 German (14 from the western and 8 from the eastern part of Germany), 19 Italian, 11 British, and 5 Spanish, cities. In Central and Eastern European countries,

**Table 1.** Selected large cities in Europe with decreasing population

Country	City	Total resident population		Change	
		1996	2001	Absolute	% p.a.
Belgium	Antwerp	455,852	448,709	−7.143	−0.31
Bulgaria	Sofia	1,112,847	1,091,772	−21.075	−0.38
Czech Republic	Prague	1,204,953	1,169,106	−35.847	−0.59
Estonia	Tallinn	421,249	399,685	−21.564	−1.02
Hungary	Budapest	1,896,403	1,777,921	−118.482	−1.25
Italy	Florence	380,348	356,118	−24.230	−1.27
	Turin	920,952	865,263	−55.689	−1.21
Latvia	Riga	810,172	756,627	−53.545	−1.32
Lithuania	Kaunas	408,706	379,706	−29.000	−1.42
Poland	Katowice	350,974	338,017	−12.957	−0.74
	Warszawa	1,628,505	1,609,780	−18.725	−0.23
Portugal	Porto	282,522	263,131	−19.391	−1.37
Romania	Timisoara	332,277	307,786	−24.491	−1.47
	Bucharest	2,037,278	1,936,724	−100.554	−0.99
Slovakia	Bratislava	452,288	428,672	−23.616	−1.04
Spain	Malaga	549,135	534,207	−14.928	−0.54
Spain	Valladolid	319,805	318,293	−1.512	−0.09
UK	Newcastle	275,500	259,531	−15.969	−1.16
	Liverpool	458,300	439,476	−18.824	−0.82
	Glasgow	598,840	577,869	−20.971	−0.70

Source: Data — Urban Audit.

53 out of a total of 67 cities shrank. The 10 cities with the highest relative loss of more than 1.75% annually were: Halle an der Saale, Frankfurt an der Oder, Schwerin, Magdeburg (all in the eastern part of Germany), Bacau, Cluj-Napoca, Piatra-Neamt, Targu Mures (all in Romania), and the special cases of Venice (Italy) and Lisbon (Portugal).

Urban shrinkage in Europe was in part caused by suburbanization. Nonetheless, out of 98 larger urban zones (a functional urban region mainly based on commuter connections) included in the database, 54% still shrank. In addition to the suburban loss, economic decline in structurally weak, old industrialized cities (typical examples are Glasgow, St. Etienne, or Gelsenkirchen) has led to problematic development paths, in some ways similar to those in American metropolises like Detroit, Pittsburgh, and Cleveland (Fishman, 2000; Beauregard, 2003). This is particularly the case in Central and Eastern Europe, where the combination of post-socialist and post-fordist transformation processes led to exceptionally severe shrinkage phenomena, without migration and natural population losses.

Certainly, urban shrinkage as such is not a new phenomenon. It has been documented by a large literature analysing the social and economic issues that have led to flights of population, resulting in the eventual abandonment of housing blocks and neighbourhoods (Downs, 1997; Beauregard, 2003). A number of studies have also been dedicated to the analysis of the cycles of urban changes with regard to suburbanization (Van den Berg *et al.*, 1982; Fishman, 1987, 2006) and the decline of central cities (Booth, 1987; Friedrichs, 1993; Metzger, 2000). Shrinking cities have also been studied as spatial manifestations of globalization processes (Amin & Thrift, 1994; Scott & Storper, 2003). On the one hand these processes produced highly competitive 'global cities' (Sassen, 2001). On the other hand globalization led to the development of old industrialized places that are no longer required in the global economy.

However, the long-term demographic situation in Europe is mainly driven by falling birth rates. According to Lesthaeghe and van de Kaa (1986; see also Kaa, 1987) the European countries go through a 'second demographic transition'. It began in the mid-1960s and accelerated during the 1980s. It comprises behavioural effects of the people born in the interwar period. It is marked by declining rates of married couples, rising divorce rates, an increasing age of marriage, and a severely falling fertility. Since the 1970s, as the pill took effect, birth rates declined far below the replacement level of the population. The second demographic transition also included the substitution of the child with the couple as the main element of a family and the transition from the standard family model to variously shaped forms of households with increasing numbers of patchwork families. Even though the theory of a second demographic transition is criticized for its determinism it clearly describes an incontrovertible fact: the uncoupling of economic wealth and population growth in Europe.

A substantial part of the recent research dedicated to shrinking cities has been conducted in Germany. After the fall of the Berlin wall, studies appeared on the effects of the changes in economic structure and of post-socialist transition in urban spaces (Häussermann, 1996). It was nevertheless not until 2000 and after, that a field of research on the *Schrumpfende Städte* really emerged and developed in Germany. In Central and Eastern European countries, the sharp decrease in fertility rates combined with dramatic post-socialist transformation processes (Müller & Siedentop, 2004; Nuissl & Rink, 2005; Kabisch *et al.*, 2006; Steinführer & Haase, 2007) led to a rapid decline of cities and enforced a 'shock therapy' (Bontje, 2004). The simultaneity between the different changes confers a 'unique' character on the evolutions taking place (Boren & Gentile, 2007).

Therefore, dealing with the results of demographic contraction processes — often linked with economic and physical contraction processes — and designing the restructuring of shrinking urban regions in Europe present some of the most challenging tasks for Europe's cities in the near future. On a pan-European scale the still dominant one-sided growth strategy is risky. Considering the low birth rates, population decrease in many cities is inevitable in the coming decades, despite emerging reurbanization trends (Buzar *et al.*, 2007). In general, a growth-oriented strategy intensifies the negative consequences of shrinkage because it goes along with a single-edge orientation towards massive external investment, without which the breaking of the economic trend cannot be realized (Häussermann & Siebel, 1987).

Hence, the shrinking cities phenomenon represents a challenge to change and review the principles upon which urban policy and planning have been traditionally based. Accepting the inevitable might mean planning for a future of a considerably smaller city, emptying out run-down neighbourhoods, regreening once populated areas, and adopting an economic development plan that boils down to controlled shrinkage in a smaller but nevertheless livable places.

### Conversion Strategies in Germany — In the Vanguard of a Paradigm Shift?

Ten years ago, 'shrinkage' was a political taboo in Germany and systematically disregarded as a dominant development trend even in deprived areas. This was also true for East Germany, despite the fact that the real shape of development had long since been obvious. Practically every municipality in the eastern part of united Germany has faced a substantial loss of jobs and residents due to post-socialist processes of deindustrialization, migration to the western parts of the country, and dropping birth rates (Table 2). As Glock and Häussermann (2004) point out, the transformation of the former socialist economy resulted in a process of deindustrialization that was faster and more thorough than any such economic transformation in the western world. Whereas the German Democratic Republic was a highly industrialized state-led economy, the new Federal States (*laender*) in East Germany now have the lowest rate of industrial jobs within EU 15.

**Table 2.** Selected shrinking cities in East Germany

City	Total resident population		Change	
	2001	2006	Absolute	% p.a.
Chemnitz	255,798	245,700	−10,098	−0.79
Halle (Saale)	243,045	235,720	−7,325	−0.60
Cottbus	111,125	103,837	−7,288	−1.31
Gera	109,926	102,733	−7,193	−1.31
Neubrandenburg	71,723	67,517	−4,206	−1.17
Görlitz	60,264	57,111	−3,153	−1.05
Bitterfeld-Wolfen	53,461	47,369	−6,092	−2.28
Suhl	46,765	41,861	−4,904	−2.10
Hoyerswerda	47,917	41,562	−6,355	−2.65
Eisenhüttenstadt	40,180	33,914	−6,266	−3.12

Source: Data — Statistical Offices of the Laender.



The most obvious physical result of these developments was a structural oversupply of buildings, plots of land, housing units, and commercial spaces. But within the administrative system, traditionally oriented towards growth objectives, shrinkage was considered to be intractable. Policy makers and experts in the administration were unable to cope with the issue in a constructive way.

Since the turn of the millennium, however, the situation in Germany has changed significantly. Suddenly, the term ‘shrinkage’ has resounded throughout the land. Innumerable activities and events deal with the issue (Oswalt, 2006; Moss, 2008). In 2000, an independent expert commission was installed by the German Federal Government to analyse the housing market problems related to contraction processes. East German cities like Eisenhüttenstadt and Hoyerswerda started to tear down buildings in large housing areas with federal and state support. Also in 2000, the *laender* in East Germany established an urban restructuring policy with deconstruction and conversion measures in housing areas with an emphasis on the revitalization of city centres.

More broadly, endeavours for a political answer to demographic shrinkage in East Germany show up in the seven-year programme *Stadtumbau Ost* (Urban Restructuring East; 2002–2009), jointly run by the Federal Government and the six East German Federal States with a budget of 2.5 billion Euros. It is intended to stabilize the housing market by tearing down abandoned or underused buildings and improving the more stable housing quarters. The existence of integrated city-wide urban development strategies became a precondition for funding for the demolition of abandoned or underused buildings. The idea is that local strategies of urban restructuring should contribute to adapting the city to the consequences of urban shrinkage and should offer favourable conditions for new development opportunities. However, most strategies focus narrowly on housing market issues and local action is often confined to the removal of abandoned residential buildings, although these problems cannot be solved only in the housing market since they are caused by the overarching trajectories of depopulation and economic decline (Glock & Häussermann, 2004).

Still, in some ways, the experiences with conversion strategies in East Germany could be of value for many deindustrializing regions in Europe and elsewhere. Here, maybe for the first time in modern urban planning, planners disengage from the illusion of new growth and aspire to conduct a pragmatic deconstruction.

### **Neither Shrinkage nor Growth: The Dresden Case, a Tale of Ups and Downs**

The City of Dresden is located in the southern part of the former East Germany (Figure 2). Since German reunification, Dresden has been the capital of the federal state of Saxony. However, the development path of Dresden in the 1990s did not meet the high expectations people had held after the fall of the Berlin wall. Rather, the East German economy underwent a ‘system shock’. As a consequence, all important areas of urban development and public services underwent a radical change. The abrupt collapse of the East German economic and social order led to escalating unemployment rates, accompanied by a dynamic out migration to the western parts of Germany and a dramatic drop in birth rates. In the first half of the 1990s, Dresden had faced residential decrease — in particular in the historic neighbourhoods around the baroque city centre, where the housing policies of the GDR had left behind very poor housing conditions (Figure 3).<sup>1</sup>



**Figure 2.** Dresden city centre on the banks of the river Elbe. *Source:* City of Dresden.

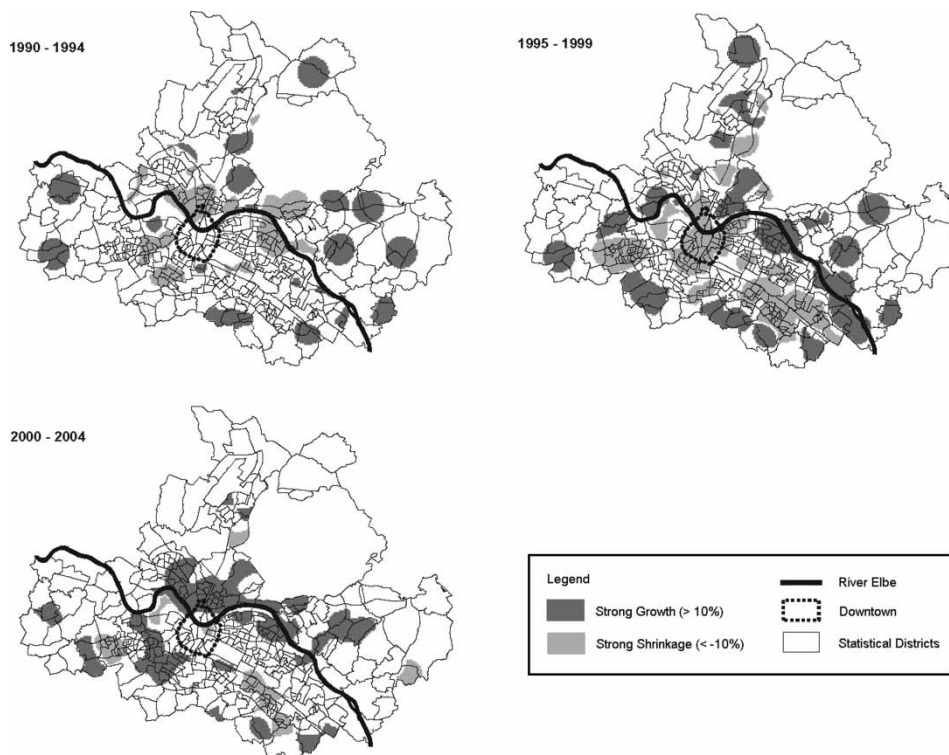
Immediately after the political changes of 1989 and 1990, Dresden experienced vibrant construction activities — especially in the fields of large-scale retail and hospitality industries. New commercial zones and office locations were planned and, with a certain time lag, the construction of new housing units and the rehabilitation of historic neighbourhoods started. However, in quantitative terms, the construction activities were insufficient to ease the tense housing market. As in many other East German cities, the spatial focus of investment activities lay initially on the outskirts of the city. Plans for the inner city were impeded by long-held opinions regarding principle questions of urban design and by controversial property rights.

After 1994, the relatively moderate construction activities were superseded by a period of ‘hyper-dynamic’ housing construction. Heavily influenced by national investment incentives, the construction of housing units reached a peak between 1995 and 1998 with an annual completion of more than 5000 dwellings. This level was two to five times higher than in comparable cities in West Germany. Since 1990, 38,000 new housing units were built and 25,000 housing units were rehabilitated. To a large extent, the new construction took place on the outskirts of the city and in areas that were incorporated by Dresden at the end of the 1990s.

Parallel to the intensive construction and rehabilitation activities, Dresden was affected by a strong trend of suburbanization. Paradoxically, housing construction and out migration reached their post-reunification peaks right in the same period, from 1995 to 1998. The result was an oversupply of housing, leading to a vacancy rate of more than 20% at the end of the decade.

In economic terms, the city recovered slowly from the industrial breakdown. With state support, a highly competitive high-tech industry was established in the mid-1990s. The ‘Silicon Saxony’ microelectronics cluster with chip designers, semiconductor and component manufacturers encompasses more than 760 companies and about 20,000 employees in the region. Infineon Technologies and AMD run their most up-to-date





**Figure 3.** Population development in Dresden 1990–2004. *Source:* Siedentop & Wiechmann, 2007:58.

manufacturing facilities in Dresden. Today, 45% of industrial production comes from this sector, which has close linkages to various research institutions, including the TU Dresden, a technical university with 35,000 students.

Since the turn of the millennium, Dresden has had an increasing population for the first time since the early 1980s, due to rising birth rates and a positive migration balance. This development is reflected in urban quarters in quite different ways (Figure 3). In particular, the historic neighbourhoods around the city centre gain population, whereas the baroque city centre and the large housing areas of the 1970s and 1980s, composed of buildings made with precast concrete slabs, still lose residents. Today, growing and shrinking neighbourhoods are located in close proximity.

With the increasing vacancy rates in the city, the suburbanization process has nearly stopped. Obviously, Dresden has benefited from the easing of the housing market and the structural problems of the surrounding rural areas. At present, Dresden offers a broad housing stock as well as land for building in the inner city. Even though the city is growing, new green field developments are unnecessary in view of the huge stock of brown fields. Approximately 1300 hectares (3.212 acres) of derelict urban wasteland cover nearly 14% of the land for building in Dresden.

Today, Dresden is performing quite well in comparison with other East German cities. In general, there is a trend towards increasing disparities within the urban system. On the

one hand, promising cities appear: other than Dresden, this applies to cities like Potsdam, Jena, and Erfurt, with high potentials in fields like culture and research. On the other hand, there is another group of 'loser cities', with low potential and a sustained loss of population and prosperity. Cities like Gera, Magdeburg, and Cottbus belong to this group (Bertelsmann Stiftung, 2006). In economic and demographic terms, Dresden has become one of the growth poles in a shrinking environment. But in comparison with prosperous West German cities like Munich, Frankfurt, or Hamburg, the situation is still challenging. Unemployment rates remain above 12%, purchasing power is approximately 15,000 Euro per capita 10% below the national average and less than two-thirds of the per-capita purchasing power in wealthy cities like Munich. However, with economic growth rates between 4% and 6%, and with a population increase of 0.6% annually since 2000, Dresden outperforms other cities in Germany. Nevertheless, the current population — 510,000 residents in 2006 — is far below Dresden's peak of 650,000 residents in the 1930s.

### **Dresden's Volatile Strategy Since 1990**

How did the city (re)act to these developments? In general, strategic planning in the City of Dresden since 1990 can be divided into three major phases: going for growth (1990–1995), urban restructuring (1996–2001), and reurbanization (2002 on).

#### *Phase I — Ignoring Shrinkage/Going for Growth (1990–1995)*

After 1990, the urban strategy of Dresden was characterized on the one hand by extensive debates about local visions (*leitbilder*) and on the other hand by the orientation towards single urban projects. Spatially, the focus was on the recovery of the historic centre, with its gorgeous baroque silhouette that was destroyed in large parts at the end of World War II. There was a broad consensus on preserving the historic layout and rebuilding central buildings like the *Residenzschloss* (Royal Palace) and the *Frauenkirche* (Church of our Lady). The second focal point was the historic neighbourhoods around the city centre, which dated mainly from the turn of the nineteenth, to the twentieth, century. After 50 years of economic scarcity, these quarters were in ruinous conditions. The city's prior task was the protection and preservation of these neighbourhoods with — at that time in the early 1990s — low population density and sustained out migration.

In general, the first years after the political changes of 1989/1990 represented a great departure from previous planning strategies along with a high level of uncertainty about future developments. In 1991/1992, the city planning department prepared three major strategic plans: a city development strategy, a downtown vision, and a transportation concept. After intensive public discussions, these plans were finally approved by the city council in 1994. The concepts were based on optimistic assumptions about the future socioeconomic development of Dresden. The planners expected 500,000 residents in 2005, which was more or less the same level as in 1989 — before nearly 60,000 people left the city. This mass exodus was seen as a singular occurrence. Zoning and infrastructure plans were adjusted towards a target figure of 520,000 residents. Consequently, the city development strategy assumed the necessity of 50,000 new housing units, 700 hectares (1.729 acres) of new commercial zones, and more than 3 million square meters

(32 million square feet) of new office floor space. The ambitious stated aim was to turn the prevailing trend and to make Dresden a city of immigration.

### *Phase II — Urban Restructuring (1996–2001)*

In the second half of the 1990s, the city changed its policy. In light of the actual population development, a continued loss of 19,000 residents between 1991 and 1996, the faith in regaining the population size of 1989 gave way to widespread disillusion, despite good economic progress. After 1994, public debate about Dresden's urban development was marked by urban design competitions and architectural controversies. The new zoning plan in 1996 stated that the population development was worse than originally expected and assumed only 430,000 residents in 2005. Nevertheless, due to political considerations the City Council enforced that building areas and technical infrastructure were still designed for a city of 500,000 residents.

While redesign of the city centre was beset with substantial difficulties, the rehabilitation of historic neighbourhoods made great strides. The fact that Dresden was able to recover these quarters in spite of a substantial population decline and tremendous building activity on the urban periphery is one of the most remarkable achievements of urban planning in the 1990s. In the face of new demographic and economic challenges, Dresden's planners were able to preserve the cultural heritage of a considerable European city. Parallel to that, the city intensified its efforts to rehabilitate and develop some of the large housing areas of the 1970s and 1980s, which had become increasingly impoverished areas and hotspots of out migration and social inequality.

At the end of the decade, the state of Saxony implemented a municipal incorporation policy to compensate for the effects of ongoing suburbanization and to make local administrations more efficient. Between 1997 and 1999, nine municipalities with a total of 34,000 residents were incorporated by the City of Dresden. The new population of 471,000 residents inside the enlarged municipal area (329 km<sup>2</sup> instead of 226 km<sup>2</sup>) corresponded approximately with the population inside the old, narrower borders only five years before.

A major turning point in the urban planning of Dresden was the year 2000. Encouraged by national government funding programmes, most East German municipalities established urban restructuring strategies to stabilize the housing market by tearing down abandoned or underused buildings and improving the more stable housing quarters. To receive funds, municipalities have to elaborate integrated development concepts for their territories. In Dresden, this new strategic plan from 2001, called *Integriertes Stadtentwicklungskonzept* (Integrated City Development Concept, INSEK), was no longer growth oriented. Instead, the model of the compact 'European city' — with an attractive urban centre, reduced land consumption, and a stable population — was emphasized. The expectations concerning the population development now reflected the incipient stabilization trend. In the INSEK, the expected number of 480,000 residents in 2015 more or less equates to the population in 1997. Different from earlier concepts in the 1990s, the INSEK was based on the presumption that the medium-term demand for new housing can predominantly be satisfied by the existing housing stock. Only 1000 new housing units — mainly inner-city town houses — would be built annually. A certain share of the existing brown fields should be turned into green spaces. Furthermore, nearly 6000 housing units were torn down since 1989 (Figure 4). These areas would be reused as green spaces or as potential



**Figure 4.** Deconstruction of large housing blocks in Dresden. *Source:* IOER.

sites for single-family homes. Since 2002, the city planning department has made annual funding applications within the framework of the federal programme *Stadtumbau Ost* on the basis of the INSEK. Nevertheless, it remains an informal planning document. In legal terms, it has no binding effect on public or private stakeholders.

### *Phase III — Reurbanization (from 2002 on)*

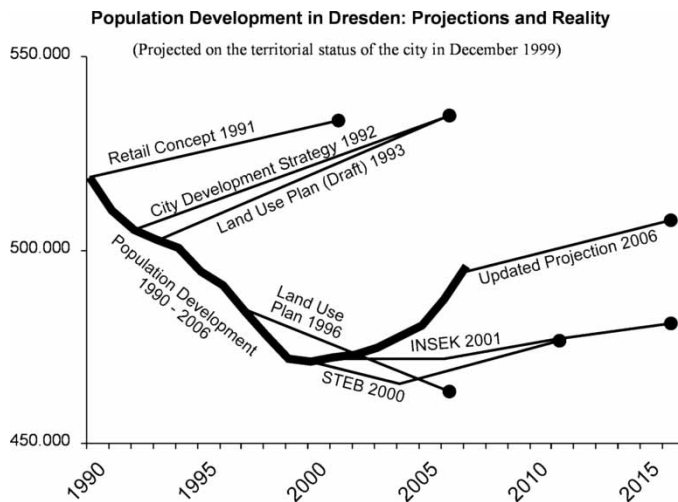
In recent years, Dresden has experienced an unexpected growth of 25,000 residents, even though the region is still losing population. Processes of suburbanization have turned into processes of reurbanization. The economic growth of Dresden is showing rates of up to 6% annually and demonstrates that the city was successful in building up highly competitive local industries, particularly in the fields of microelectronics, information technology, and biotechnology. However, the creation of new jobs for skilled labour in the high-tech sector has not been sufficient to balance the continual loss of jobs in more traditional sectors of the economy and in the public sector. Hence, economic growth has not gone along with job growth. Instead, the number of jobs in Dresden has decreased every year since 1990. To a large extent, the driving forces of the recent population growth are still unknown. However, several developments are thought to contribute to the trend reversal: rising birth rates, less suburbanization, and a positive migration balance with regard to the state of Saxony, the Federal Republic as a whole and with regard to foreign countries.

After the completion of rehabilitation, the historic neighbourhoods around the city centre have become very attractive housing areas with increasing densities and low vacancy rates (Figure 3). As a consequence of population growth and the demolition of vacant buildings in the frame of the *Stadtumbau Ost*, the average vacancy rates in other parts of the city

have dropped as well. This has also been true for some of the large housing areas built in the 1970s and 1980s, which has applied mainly to the relatively smaller ones in a comparably attractive location. Other large housing areas in the urban periphery have still shown symptoms of decline and social segregation. Today in Dresden, areas of shrinkage and decline are in close proximity to prospering and wealthy communities. To continue the consolidation of the housing market and to improve the quality of the urban fabric, the city plans to demolish an additional 5000 dwellings with state funding. Furthermore, it strives for a consistent refinement of the high-tech industry, closely associated with the various research institutions, and the assurance and maintenance of the broad variety of cultural offerings and historic sites that attract seven million tourists from all over the world each year.

### Urban Strategy as Flexible Adaptation — Lessons from Dresden

A comparison of the development trends and the administrative strategies reveals a striking asynchronicity over the past 15 years (Figure 5). In times of strong population losses, the city forecasted a population increase. In a period of stabilization, local planners and politicians assumed continual shrinkage. And as substantial growth set in, the prognoses were based on premises of a stable population development. To explain the discrepancies, one has to take into account on the one hand a certain time lag in analysing the structural developments of settlements. On the other hand, a normative bias towards optimism among the city's planners also played an important role. The City of Dresden consciously relied on growth and the turn of negative trends. In the face of great uncertainty about future developments, the city abandoned the option of drawing synoptic plans and saw 'additive urban planning' as the best opportunity to meet the specific requirements of the city's struggling neighbourhoods. However, this incremental-growth-oriented strategy had its limitations. For example, city planners failed to propose a realistic quantity structure. Moreover, there was no guideline to prevent private misinvestments. Better public communication about the real changes in demand for residential, office, and commercial spaces in the — at that time — shrinking



**Figure 5.** Population development and prognoses in Dresden since 1990. *Source:* Siedentop & Wiechmann, 2007:61.



city would have contributed to containing the ‘investment mania’ of private developers triggered by state incentives.

The description of Dresden’s development path since the political changes two decades ago demonstrates that most trends were very hard to predict if not completely unforeseeable. In the 1990s, people — particularly politicians and planners — were too optimistic about the future. This reaction was by no means exceptional in the 1990s. In practically every East German city, local economic development was overestimated at that time. Later on, as people focused on correcting this false estimation, nobody in Dresden anticipated the amount of new growth that took place after the turn of the millennium. Today, areas of shrinkage and decline are in close proximity to prospering and wealthy communities. The strategic challenge is to deal with this patchwork while accepting that the future remains unpredictable. Linear trend extrapolation or ‘business as usual’ is very likely to lead to counterproductive strategies. The only steady trend in Dresden has been a continuing trend reversal. Hence, strategic flexibility has become more important than the strategy itself. Cities that are, like Dresden, characterized by manifold talents and confronted with dynamic change in its fundamental parameters within a historically short period of time should plan neither for growth nor for shrinkage. They should plan to stay flexible and make their cities adaptive to change.

### **Conclusions: Changing the Way We Plan to Change in Shrinking Cities**

The topic of shrinking cities in planning has been stigmatized for a long time. However, in the twenty-first century it is a challenge of paramount importance for European urban policy. Today, there is general agreement in the shrinking cities literature that a paradigm shift is needed for planners from growth-oriented planning to ‘smart shrinking’ (Popper & Popper, 2002; Bourne & Simmons, 2003; Pallagst & Wiechmann, 2005; Hollbach-Gromig & Trapp, 2006; Allweil, 2007; Schatz, 2008). Traditionally, planning is based on growth expectations. Due to the fact that contraction processes are complex, dynamic, and difficult to place in local political arenas the lack of adequate instruments for developing existing complex settlement structures with unused or underused building stocks and surplus infrastructure requires not only new tools but also a new planning paradigm. However, urban restructuring cannot alter the basic societal parameters, the processes of demographic change, and the partial ‘de-economization’ of shrinking cities. This has to be tackled by coordinated national and supranational policies. But local strategies of urban restructuring may contribute to adapt the city to the consequences of urban shrinkage and may offer favourable conditions for new development opportunities. In view of the high degree of uncertainty robust strategies are required to this end.

Claiming the need for flexible urban strategies in highly uncertain environments entails some consequences about the ability to plan the restructuring of shrinking cities. In modern societies planning is generally seen as a powerful and effective way to prepare strategic decisions and to rationalize governance processes. However, planning is not the only way to arrive at a decision or to develop a strategy. In many situations intuition, routines, ballots, bargaining, and other modes of decision-making can substitute for planning. Strategizing without planning is possible and prevalent in the practice of urban and regional development across Europe. Hence it is crucial to distinguish strategizing from plan-making. Whereas planning is traditionally about rational analysis and programming, strategizing is targeted towards discovery and creative synthesis.



Traditional strategic planning approaches serve well in relatively stable environments. They seem to be in particular appropriate when the strategist's knowledge of the issues at hand, the control of the environment, and the demand for reforms are estimated relatively high (Wiechmann, 2008b). But when there is greater uncertainty about the future, they are at best marginally helpful and at worst downright dangerous (Courtney *et al.*, 1997): in this case underestimating uncertainty can on the one hand lead to strategies that neither defend against the threats nor take advantage of the opportunities that higher levels of uncertainty may provide. On the other hand, overestimating uncertainty and assuming that future trends are entirely unpredictable can lead to the abandonment of all analysis, so that decision makers go with their gut instinct.

Even if the framing capacity of planning is limited in uncertain environments, this does not mean that formal planning processes are futile in strategy development. Certainly, planning can prepare the assignment of priorities. It may codify and legitimize settled agreements. Planning may as well contribute to the development of suitable instruments and actions to implement a strategy. In any case the making of plans has to be embedded in a comprehensive strategy development process, where emergent strategies and informal operation rules are considered as well. But, inconsistent with traditional planning thought the absence of explicit strategies — plans — does not necessarily mean organizational failure: 'Planning without plans may not be such a bad idea' (Friedmann, 2004:54). Instead the attention is directed towards the framing conditions that either facilitate or impede the formulation of strategic plans as a tool for strategy formation. In particular management scholars, like Inkpen (2000), associate absence of strategy with a liberating effect that can possibly stimulate innovation and creativity. Accordingly, absence of strategy can be 'implemented' to foster an atmosphere of strategic flexibility. This basically includes a fundamental change in the way we plan to change.

Admittedly, the challenge to plan without plans is paradoxical. But contemporary spatial planning has to deal with contradictory requirements. In order to alter effectively the place concerned, essential strategic intentions still have to be included in formal documents and binding regulations (spatial plans, state programmes, etc.). Strategies based on voluntariness and consensus require backup by traditional governance instruments. But formalization of strategy-making reduces what is mostly needed in shrinking cities: flexibility and open-ended, collective learning processes. Informal processes offer more scope for experiments and reduce the probability of institutional sclerosis. The example of the urban development of Dresden since 1990 demonstrates that aligning urban strategy with demographic uncertainty requires the ability to accept a high degree of unpredictability and to adapt to different trends that may occur. Preparedness, robustness, and resilience displace to a certain extent rational analysis and error prevention as key qualifications of planning in shrinking cities.

## Note

1. The Dresden case study is based on more comprehensive reports published first in German language by Siedentop & Wiechmann (2007) and in English language by Wiechmann (2008a).

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