Leipzig, Germany



Leipzig is the largest city (a municipality with city status due to its size) in Saxony, Germany, with an area of about 30,000 ha and currently almost 600,000 inhabitants benefiting also from protected riparian forests, stretching from the south towards the north. The city was affected by massive population loss, increasing vacancy numbers and unused brownfields after 1990. Population losses slowed down by the turn of the millennium. Since 2012 Leipzig re-grows by around 10,000 citizens (2%) per year. Consequently, pressures on the city’s remaining open spaces are strongly increasing. Former industrial sites or residential buildings have now become opportunities for residential and commercial development but also support urban biodiversity and provide recreational services.

**State of the Urban Forest.** Leipzig is a fast densifying city with associated impacts on the green spaces and forest areas. For about 23 % of the urban population (as of 2015) there is no public green space (min. 2,000 m²) at a distance of 250 m (approx. 5 min walk) accessible. For 32%, such green spaces are accessible, but they are not sufficient for minimum supply of 6 m² per inhabitant to be aimed at (the goal of the local authority). In the individual urban districts, the supply of public green spaces is quite diverse. The location and size of the green spaces as well as the building structure and the population density plays a major role. In the inner-city quarters with perimeter block development there is already a shortage of green space. The high density in the neighbourhoods reinforces the competition for use and reduces the scope for green actions. Even allotment gardens and wooded areas close to residential areas cannot compensate for the deficit. They do not meet all the requirements, especially for sport and play in public green areas, fulfil other nature conservation and forestry functions (forest), or are only open for specific groups (allotment garden). Within the urban heat islands, brownfields, allotment gardens, sports fields, cemeteries, parks and green spaces and large green inner courtyards are indispensable cold air areas, which additionally have a special role for air-hygienic due to their filter function.

By far the largest share of street trees is the result of the planting period 1996 to 2005. The number of felling is compensated by plantations, in most cases even significantly more street trees are planted than felled. Despite this effect, Leipzig's street tree stock only increases slightly. The target of the Clean Air Plan of planting 1,000 additional trees per year has not been reached since the mid-2000s. Apart from the small-scale pattern of inner-city open spaces, the most important climate-ecological compensation area and fresh air producer is the alluvial forest of Leipzig. The alluvial forest with the associated water network of the Elster-Pleiße-Luppe floodplain is the most important area for biodiversity. Moreover, also other floodplains with mainly near-natural areas are designated as protected. Supplementary areas with buffer functions for the core habitat areas can be found in the agricultural landscape, in the area of recultivation areas of post-mining landscapes in the southern region, and in the area of renaturalised urban wasteland (Plagwitz railway station).

**Governance, planning and policy landscape.** The territory of the Sonian City spans different administrative boundaries. Relevant authorities include the local governments of 11 municipalities: the provincial governments of the Flemish Brabant and the Walloon Brabant, and the regional governments of the Brussels Capital Region, Flanders and Wallonia. The federal government and the Language Communities have certain competences in this territory, but only play a rather indirect role. This administrative fragmentation implies that the planning approach is not uniform throughout the territory, but follows the borders of the three regions, resulting in three separate planning frameworks.

As far as the core area is concerned, one of the most important policy instruments is the "Natura 2000" network, in which the 'core' part of the forest and some neighbouring green areas are registered. This is a European network of natural or semi-natural sites important for both the fauna and flora that live there. Unlike many nature reserves, Natura 2000 areas are not "closed" reserves: human activities are still allowed as long as they do not compromise the "objectives for nature" in the area. Building on it, every region also has a management plan for the portion of forest under their jurisdiction. To foster cooperation between the different regions, also the Structural plan for the Sonian Forest has been drawn up and a platform of permanent cooperation was established in the form of the Sonian Forest Foundation. For the city/forest areas surrounding this forest core, the landscape of policies and regulations impacting UFBS is much more fragmented. Some provisions are included in more general policy and planning tools (i.e. not immediately targeting the environment), at the regional, provincial and communal level. There are also some policy tools targeting environmental issues.

**Participation citizen science & contestation.** The program “Baumstarke Stadt” offers sponsorships for urban trees within the responsibility of the city authority. The sponsored tree is maintained by the City, but the sponsor can provide additional support, e.g. by watering the trees extensively in dry periods, keeping the tree disc free from weeds, loosening the soil surface of the tree disc (if not overgrown) to aerate the soil, checking the attachment of the tree-supporting post, cleaning the tree disc of debris such as paper etc., or simply informing the department of urban greenery in case of larger waste deposits, damage to the tree or its holding device etc. Information about the program “Baumstarke Stadt” is publicly available to interested citizens accompanied special offers for various anniversaries, press releases and a leaflet. This all contributes to identification of residents with their "green city".

Additionally, citizens have also been involved in the development of the street tree concept Leipzig 2030 within an extensive participation and coordination process. The street tree concept Leipzig 2030 was developed by a working group involving all relevant actors from the city administration and municipal companies. At the same time, citizens were able to actively contribute to the planning in an extensive participation and coordination process. The concept is to be understood as a strategy paper for the maintenance and expansion of the street tree stock. Thus, different interests with regard to street trees were bundled, which finally resulted in a coordinated, comprehensible and implementation-oriented action instrument

**Socio-economic trends.** The strong and fast demographic regrowth of the city of Leipzig after years of shrinkage is primarily driven by strong in-migration. In the 2000s, the city experienced a net influx, especially of young people. The in-migration surplus increased over the last 15 years and reached the level of >10,000 net immigrants from 2011 onwards. This is also due to the increasing attractiveness of the city for job starters from the rural surroundings and increasingly from other larger cities and regions in Germany. Moreover, whereas the number of immigrants has remained at a consistently high level since 2011, the number of people arriving from abroad has increased significantly since then. The share of foreigners immigrating to the city increased. International immigration is contributing to Leipzig’s rejuvenation because of the age structure of migrants.

During recent years, Leipzig’s labour market stabilised and improved slightly. We have thus observed a constant decline of the unemployment rate from 14% in 2005 to 5.9% in 2019. Clearly related to this tendency, the rate of welfare recipients also decreased steadily to a share of 17% of the total employable population. Even though the total number of older and long-term unemployed persons remains stable, their relative proportion is increasing. These numbers reveal that access to the labour market is not possible for everyone, even though the city is growing strongly. Today, Leipzig is one of the large cities in Germany with the highest shares of people living in, or at risk of poverty. In 2012, 30% of Leipzig’s population was at risk of poverty, 11% above the national level in Germany. Among Germany’s largest cities, Leipzig has the largest share of low-income households (more than 62% with incomes below €25,000 per annum). Moreover, during the last few years, an increasing number of refugees have been assigned to the city, which will have an impact on the city’s ethnic make-up and on processes of diversification, as well as on patterns of residential segregation. Access to Leipzig’s labour market is more difficult for migrants than for Germans. Although many jobs have been created, a substantial proportion was to a large extent characterised by low wages and precarious contracts, especially in the secondary sector. This characterises the city’s labour market until today.

**Major challenges & knowledge gaps.** Due to a lack of financial and human resources, green space maintenance cannot achieve its full performance in terms of intensity of care. The scope for action of local authorities is limited, so that the maintenance cannot meet the demands of use. In addition, there are institutional barriers due to non-transparent communication of responsibilities within the city administration. For instance, the tasks of maintenance are divided between the responsible office and a city cleaning company. This can lead to problems of unclarified responsibilities within the administration as an institutional barrier, due to the scattered division of responsibilities for green space management tasks, and further to complications of the target-oriented coordination and control in the city administration. In consequence, the care and design of the urban green spaces by actors in the field of green space management cannot be sufficiently achieved. The main challenges are therefore the lack of a long-term financial basis and institutional structures that are difficult to change, which may make implementation more difficult. Also, the poor equipment or design, especially of public parks and meadows, can be regarded as institutional barriers in planning and design. Besides the lack of infrastructure such as poor road connections within the green area, this covers also legal reasons as institutional barriers. Private green spaces are therefore subject to the obligation to ensure safety on roads. The owner must therefore be liable if someone on the private property suffers damage comes. As a result, private green spaces are usually fenced and not available to the public. The situation is similar with brownfield sites, especially in the inner-city, with high land potential to be revitalised and public open spaces to be developed. Unresolved ownership structures or inheritance disputes may affect the development of these inhibit potential open spaces. Private ownership restricts the development of urban green spaces. Certain restrictions are also imposed on protected areas. Restrictions on access arise here, due to the nature conservation law. In favour of the nature, this results in various restrictions on use depending on the status of the protected area. Due to the strict provisions and unclear cooperation structures within responsibilities, protected areas can be regarded as institutional barriers. For instance, the respective protected areas can either prohibit or significantly restrict the development of road systems. The differing interests of the municipal administration on the one hand and the nature conservation authority on the other hand, also constitute an institutional barrier to access to the protected areas. This requires a coordinated cooperation of all parties involved actors within the administration, but also with other actors at city level.