



BRNO GREEN CITY




**BRNO - participant
in the competition
Entente Florale Europe**



A WORD FROM THE MAYOR



Dear Ladies and Gentlemen,
When we hear the word Brno, most of us think of the second largest city in the Czech Republic lying on the confluence of the Svitava and the Svratka. There are plentiful leisure opportunities in the unique natural environment around the city shaped by these two rivers. We are now endeavouring to ensure that the people of Brno also have the chance of rest and relaxation in the centre of town. There are now a number of parks to visit, as well as biotopes that are an excellent destination in warm weather where water is purified with the help of plants, algae and microorganisms. The City of Brno is continually striving to plant additional greenery. We are also concentrating on the ecological processing of waste, including organic household waste. We are also planning the cultivation of the riverfront and other public spaces and are engaging architects, specialists and members of the general public in this endeavour. As you walk along the streets of Brno, you are sure to appreciate the pleasant atmosphere in a metropolis that is trying to live in harmony with nature. I am confident that all our efforts will bear fruit in the competition Entente Florale Europe 2017 and that the people of Brno will be able to feel even prouder of their city.

Petr Vokřál, Mayor of Brno



INTRODUCTION

BRNO, GREEN CITY

Brno is the second largest city in the Czech Republic in terms of both its area and its population and is the administrative centre of the South Moravian Region. It has a population of around 380,000, while around 600,000 people live in the metropolitan area. It is an extremely important centre of innovation, research and education in the context of both the Czech Republic and Central Europe as a whole. There are more than eighty thousand students at the universities here who, along with other highly qualified specialists, go on to find work in institutions such as the International Clinical Research Centre (ICRC) and the Central European Institute of Technology CEITEC, as well as a number of well-established global concerns and new hi-tech companies.

The leadership of the city and the region is providing targeted support for advanced technology, is focusing on attracting investors and supporting start-ups, and is building the corresponding infrastructure. The youthful nature of Brno is highlighted by its rich cultural life and by a range of restaurants, and internationally renowned cafés and bars in particular, that has seen great expansion in recent years.

The city has an extremely long tradition of caring for the natural world. Lužánky Park, whose history stretches back to 1786, was one of the very first town parks open to the public in Central Europe. The once feared fort and prison Špilberk, one of the town's dominant landmarks, has been transformed into an island of greenery, as has Koliště, lying on the site of the former town fortifications, which has been turned into a ring of town parks around the historical centre.

There are plenty of other green areas in Brno and around the town. Forests alone cover 28 % of the town area. These are unique conditions for a city of Brno's size. The people of Brno are well aware of this, and protect and cultivate the natural world with great care.

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TOWN PLANNING AND DEVELOPMENT



THE DEVELOPMENT OF THE CITY

The development of Brno in the second half of the twentieth century was rather unusual. The socialist system considered agricultural land an important means of production and afforded it strict protection against construction even relatively near the centre of town, for which reason the large new housing estates were built largely in the north of the city on hillsides and in river valleys and the city spread deep into the surrounding countryside to the north. This makes the construction and operation of city infrastructure extremely demanding to this day.

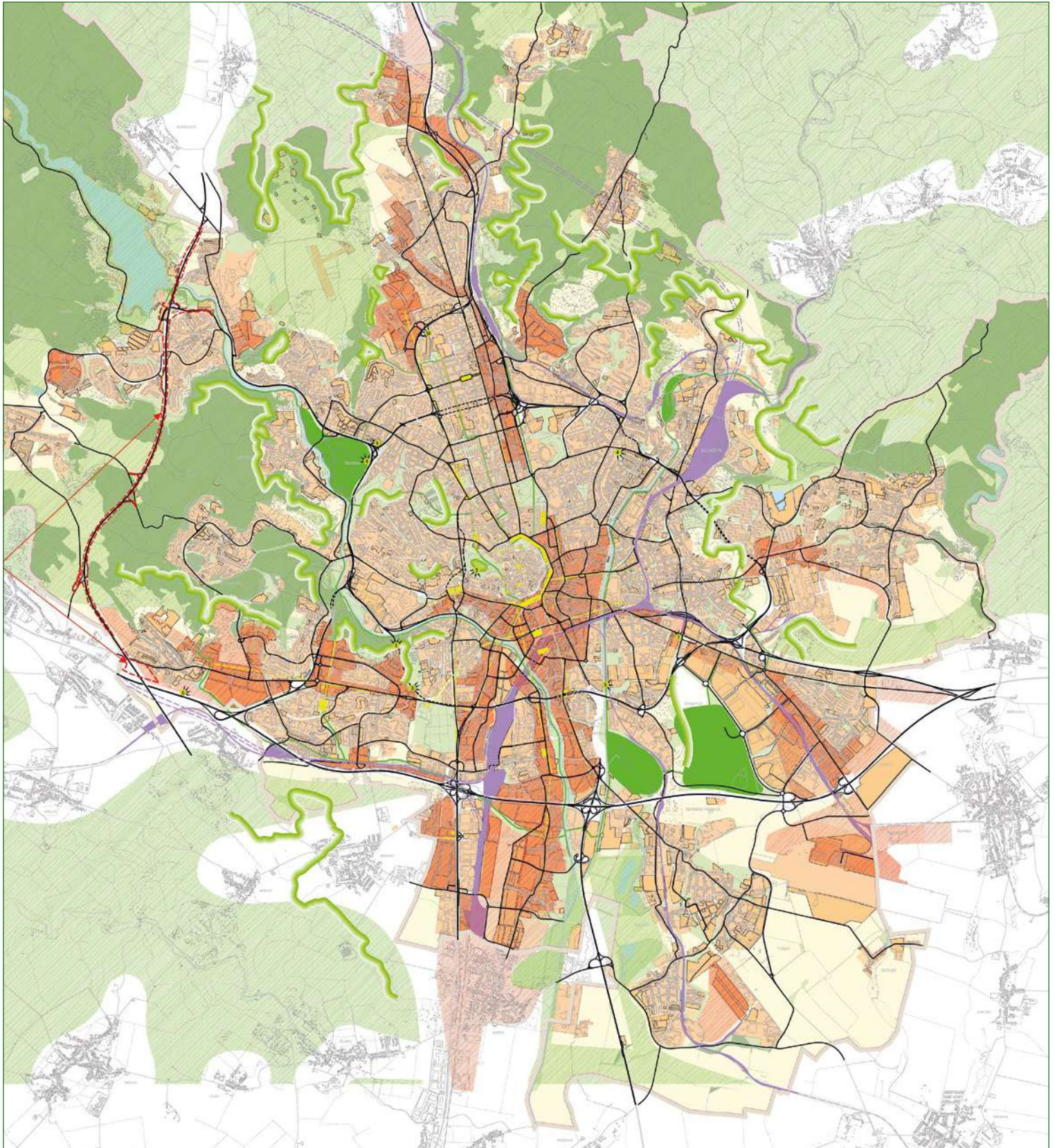
THE LANDSCAPE

Brno is situated in a unique location on the boundary between two types of landscape. The northern part of the city, including the historical centre of town, lies on the southern tip of the Drahaný Uplands with forested hills and river valleys suitable for recreational purposes. The spur of rock on which

the Cathedral of Saints Peter and Paul stands is one of the last protrusions of these highlands. There were originally swamps and meadows to the south of the city, though this is now a flat agricultural landscape without significant areas of unbroken greenery. There is, however, still potential for further use of this landscape, for example at the confluence of the Svatka and Svitava.

THE CURRENT TOWN PLAN

Brno's current town plan aims to preserve the landscape while also imple-



URBAN AND LANDSCAPE OUTLINE

Basic principles of urban development and landscape protection in the town plan. Construction is strictly prohibited on areas of greenery and landscape complexes, while green skylines may not be disrupted by construction above ground level.



menting the gradual development of the town to the south where there are favourable technical conditions for this, first and foremost strategic links to the motorway, railway, sewer system and wastewater treatment plant. This plan, however, also means the creation of the right conditions for an urban environment of a high standard and the development of green areas.

THE SYSTEM OF GREEN AREAS

The goal approved by the General Assembly of the City of Brno is to create a comprehensive system of green areas in the town with an integrated system of ecological stability. This system is based on four categories of green areas:

→ Green areas as a component of housing augmenting the residential environment, e.g. areas of greenery around houses and apartment buildings, green areas on housing estates.

→ Town parks. This category aims to make up the deficit of 400 hectares of parkland and the shortage of recreational facilities with the design of large recreational parks, primarily in the south of the city.

→ Unbroken green bands that also comprise footpaths and cycle paths through the city. These bands fulfil the role of connecting individual parts of the city and connecting the town itself with the surrounding landscape. They also generally serve as biocorridors, and this uninterrupted network significantly increases the recreational capacity of the town.

→ Biocentres. Large sites with a typical biocoenosis where protection of the natural world and landscape are prioritised over intensive recreational use.

PLAN: 1,000 NEW HECTARES OF GREEN AREAS

The town plan has further defined two categories for the development of green areas:

→ Green urban areas that should serve for the everyday recreation of the population of the city and that are suitably equipped for this purpose.

→ Landscape greenery dominated by natural processes, though also serving for certain types of recreational use.

The town plan has proposed more than 500 hectares of new areas on large self-contained sites, of which most are

located in the south of the city, for the development of green urban areas. An area of a similar size, bordering important areas of landscape such as the confluence of the Svatka and Svitava, has been set aside for the development of landscape greenery. These individual sites may also serve as biocentres. The directives of the land plan are also designed to create the right conditions for the development of green areas, both in general terms and in relation to the individual functions of the city.

Turning these plans into reality demands considerable means from the city budget. The City of Brno is also gradually buying up pieces of land in selected localities and preparing their adaptation for new purposes.

To date, seven biocorridors and biocentres covering an area of almost 18 hectares have been created in the outskirts of the city. The city has also revived Cacovice Island, an important biocentre in the past and a place where people can spend their free time.

THE NEW TOWN PLAN

The existing town plan is twenty-years-old and Brno is now preparing a new town plan which is to follow up from the existing town plan, develop its conception and respect the same principles. Preservation of the landscape and the natural world in the city is of fundamental importance within this plan. The demands it sets out for the further development of green areas are extremely detailed and are based on similar principles as the current town plan. The newly established Office of the City Architect is currently preparing a "Vision of the Spatial Development of the City" laying out the main directions in which Brno's urban plan should develop. One of the individual visions it incorporates is that of a "town of short distances". This vision takes in, for example, an expansion to the number of public burial places as and where possible so that the people of Brno do not have far to go from their homes to get to them. One such example is the cemetery in Komín which has been revived thanks to a citizens' initiative.

The new town plan will also consider recreational areas in a similar way.

THE CITY ARCHITECTURE



THE OFFICE OF THE CITY ARCHITECT

For the last year, the newly established Office of the City Architect has been responsible for the conceptual approach to town planning in Brno. In addition to the Chief Architect, the office also has another fourteen highly specialised members of staff. The office fulfils an advisory role and opens and evaluates tenders for architectural solutions for important city projects. It participates in the preparation of the town plan, for which it prepares a vision of the spatial development of the city.

During this work, it listens to the population which has the opportunity of deciding on the form this vision is to take in polls of public opinion. It is also responsible for preparing the conceptual document A Strategy for Public Spaces which determines the principal goals in the development of such spaces. This document serves as a practical manual to how specific spaces are to be designed.

SHARING MEANS OF TRANSPORT AND THE PUBLIC SPACE

Brno is striving systematically to reduce traffic in the town and introduce



pedestrian zones and bicycle and car sharing. The pedestrian zone in the centre of town has now been open to cyclists for two years. Cyclists can take advantage of dozens of kilometres of cycle paths and the bicycle stands that the town has placed in strategic areas in line with a public vote. Drivers who use the shared cars of registered companies will be able to park in the city free of charge.

The city is taking a similar approach to public spaces. The town squares are a regular venue for seasonal markets and festivals. The people of Brno are enjoying increasing numbers of

events organised by civic associations bringing life to the banks of Brno's rivers. "Pianos in the Streets" and chess boards and barbeque points in the city parks are also extremely popular.

STATUES

The city has long been trying to cultivate the public space with the help of works of art. The project Statues for Brno has led to nine installations in recent years, of which a number have attracted considerable interest and become tourist attractions and natural symbols of the



town. These include, for example, the clock mechanism in Náměstí Svobody and the equestrian statues in Moravské Náměstí.

STATUES FOR BRNO:

- A statue dedicated to W. A. Mozart
- A statue dedicated to T. A. Edison
- A funeral statue
- A statue dedicated to the poet, writer and translator Jan Skácel
- The memorial to the first, second and third resistance movements
- A multifunctional clock mechanism
- The Statue of Justice
- The Monument to the Holocaust
- The equestrian statue in Moravské Náměstí in Brno



GRAFFITI AND VANDALISM

The continual battle against minor criminality and vandalism, characterised primarily by extremely widespread graffiti and tags, is unfortunately part of life in the big city. Brno is confronting this problem with campaigns and the engagement of the Town Police. Four areas have been designated where this kind of street art is legal, and some of the town's boroughs are also taking a similar approach.

THE NATURAL WORLD IN THE CITY

AIR QUALITY

Brno has long had a problem with air quality and with airborne dust in particular. In 2016, the emission limit for pollutant PM10 (suspended dust particulates of a fraction of 10 μm) was exceeded in two places, and the limit for NO₂ exceeded in another two places. This generally occurs in the cooler part of the year on windless days and during temperature inversions in places with heavy traffic.

The city has established an emissions monitoring network comprised of five automatic stationary measuring stations and one mobile measuring unit that is located as and where necessary. Their operation costs 2.5 million crowns a year.

MEASURING STATIONS

- The Arboretum at Mendel University
- Svatoplukova
- Zvonařka
- Bauerova
- Lány

The people of Brno can find monitoring data on the webpages at <http://ovz-dusi.brno.cz>, www.brno.cz (emissions monitoring) and www.chmi.cz.

AIR QUALITY ACTION PLAN

In 2017, Brno City Council adopted the Action Plan to improve air quality. It contains of two dozen specific measures to cut the air pollution in the Brno

agglomeration. Its main goal is to promote more sustainable and environmentally friendly mobility, to clean roads more efficiently, to put more greenery into the streets, and to better inform citizens about the current air situation.

CULTIVATED LAND

Agricultural land still accounts for more than a third of the area of Brno. Large areas of agricultural land are found predominately in the peripheral parts of town. The remaining small cultivated areas in built-up areas are largely private gardens, typical Czech allotments and courtyards.





The extent of open landscape, largely agricultural land, is declining in the city, as it is in other large agglomerations, due to the growth of satellite districts. There is still a lot of agricultural land around the ever-expanding Brno Industrial Zone at Černovice Terrace. New roads and car parks have to be built in both these situations. The new Town Plan of the Statutory City of Brno endeavours to find a balance between the further development of the city and the protection of agricultural land, and states basic principles and goals in the protection of agricultural land.

WATER

There is a relatively dense network of watercourses in the Brno agglomeration. The majority of riverbeds have been regulated in built-up areas. The largest river in the city is the Svatka which flows through the town from the northwest to the southeast. Its largest

tributary the Svitava crosses the city border in the northeast of the town and flows in a southerly direction through the town before joining the Svatka in the south of Brno. Both are Class 3 Rivers in terms of the quality of surface water. They have a large number of small tributaries, of which the most important include the Ponávka, Říčka, Leskava, Vrbovec and Ivanovice Stream. There are a number of small and medium-sized lakes and fishponds in the city, such as Babí Doly, Žebětín Fishpond, the ponds on the Ponávka around Jehnice, the Soběšice Ponds and the lakes in Mariánské Údolí. The Holásky Ponds, which have been declared a natural monument, have been preserved on the floodplain of the River Svitava.

THE DAM

The multipurpose Brno Dam Lake on the River Svatka is the most important area of water in the city. A suc-

cessful project aimed at suppressing the excessive seasonal reproduction of algae (cyanobacteria) began in 2009. This project took in the dredging of sediment, liming of the banks from the air and aeration towers being put into operation.

The city is currently modifying a number of adjacent areas used by thousands of people from Brno for recreation in the summer and winter and is building the necessary infrastructure.

GROUNDWATER

Sources of groundwater are found in two different geological formations – shallow groundwater in Quaternary river sediments and groundwater from a deep artesian aquifer in Neogene sediments. Supplies of groundwater are supplemented by rain and snow, though this supplementation is inadequate due to the town's paved surfaces. Rainwater has been seeping through newly built infiltration facilities increasingly often



in recent times. Wastewater from residents, industry, civic amenities and agriculture is currently drained from the urban area of Brno to a central wastewater treatment plant in Brno-Modřice which has a total annual throughflow of 61,520,000 m³.

FLORA AND FAUNA

As a big city, Brno has unique natural environments. There are large deciduous and mixed forests within easy reach by public transport that cover around 28 % of the total area of the city. The largest of these are the natural parks Podkomorské Lesy and Baba. A number of rare and protected plants grow in Brno, of which the most remarkable include one of the largest populations of the Greater Pasque Flower in Europe. A number of animals are also protected here, such as rare amphibians for which the city has built safe migration crossings at a cost of 1.3 million crowns.

ANIMAL LIFE IN BUILDINGS

The city has prepared a special project in co-operation with experts from the Czech Society for Ornithology to help threatened swifts, house martins, jackdaws and bats that use buildings in the town for nesting and shelter. The Environmental Department has had their occurrence mapped and the final results should be available this year. Data is available on the Internet so that the occurrence of the given animals can be taken into consideration during building renovation projects. If buildings can no longer be used by these birds and animals following renovation, then at least nest boxes are installed for them in the vicinity.

RESCUE STATIONS

The City of Brno has been working for a number of years now with the rescue centre Ptačí Centrum (Bird Centre) which provides care for rescued and injured wild animals. The Jinačovice

Rescue Centre which is active in the town boroughs Brno-Bystrc and Brno-Kníničky is run by the organisation Zoo Brno which is funded by the city.

WASTE

Brno meets its obligations as stipulated by the law as an originator of communal waste. The waste system in the city is subject to a universally binding decree and observes the hierarchy of methods of waste management in the given order – preventing the creation of waste, recycling (the material utilisation of waste), the utilisation of waste for energy and, as a final option, the disposal of waste. All this is handled by the town company SAKO which also operates a waste incineration plant.

1. PREVENTING THE CREATION OF WASTE

The city has prepared a number of projects aimed at preventing the creation of waste:

RE-USE, A SECOND LIFE

The project “A Second Life” features four new RE-USE points at waste collection centres at which people can donate items they no longer use. This primarily involves household furnishings and fittings, toys, sports equipment, etc. The items donated are then available for purchase at a symbolic price. The

RE-NAB

Brno launched the project RE-NAB aimed at promoting the further use of second-hand furniture in April 2016 with the establishment of a “furniture bank”. The population of the city can donate unwanted pieces of furniture, primarily wooden, metal and plastic tables, chairs, cupboards, chests of drawers,

ings and technology, personal documents, old photographs, films, toys and sports equipment are cleaned and repaired within the project before becoming part of museum collections or theatre props.

CLOSING THE LOOP

The projects mentioned above are part of a comprehensive set of measures aimed at introducing “re-use management” or the further use of old products. Brno recognises the importance of supporting the transition from a linear model of consumption to the new vision approved by the European Commission on 2 December 2015 in the circular economy package entitled Closing the Loop.

HOME COMPOSTING

The city has joined the international project MINIWASTE. It first tested home composting in one of the city boroughs for two years. As this proved a success, it is now offering citizens the sale of composters with a fifty-percent subsidy, though this is conditional to taking part in training in their use. More than a thousand composters have been sold since 2013 and can now be found in houses and apartment buildings in the city. The project is set to continue into the future. There is, however, now a new pilot project in Masarykova Čtvrť in Brno known as “Brown Bins” which provides an opportunity for sorting organic waste, particularly in apartment buildings where there is no obvious use for compost.



proceeds are used by the city-funded organisation Green Public Spaces for the City of Brno towards the project “FLOWERS IN BRNO” which involves the planting of flowerbeds with flowering bulbs in selected green areas in the city. The city has taken advantage of existing infrastructure and older housing units owned by the city for its RE-USE points and this has also given these sites the chance of a new life. The project won the prize “Waste Project of the Year 2016” in the prestigious nationwide competition “Local Project of the Year”.

beds and shelving, to socially disadvantaged people. Unwanted furniture can be donated at four collection yards.

RETRO-USE

The “RETRO-USE” project connects preventing the creation of waste with the cultural and social sphere. Since August 2016, it has been searching for further meaningful uses for all unwanted household items made before 1989 that may be of particular interest to cultural institutions. Items such as books, magazines, household furnish-

2. WASTE RECYCLING – MATERIAL UTILISATION

The city is obliged to sort utilisable materials from communal waste. It collects the following types of waste:

- paper, glass, plastics, drinks cartons and aluminium drinks cans. This purpose is served by containers placed in public spaces, waste collection centres, underground containers and containers in apartment buildings (plastics + paper),
- metal waste, biodegradable waste of plant origin, foam polystyrene, used cooking oils and fats – people can take these things to waste collection centres where they will be sorted and processed.



3. THE UTILISATION OF WASTE FOR ENERGY

The remaining combustible mixed communal waste is utilised by Brno waste incineration plant which burns it to make electricity and steam that serves for heating provided by the central heat supply system.

4. WASTE DISPOSAL

Brno only disposes of waste that is unsuitable for material utilisation and non-combustible waste from collection centres.

THE STRUCTURE OF THE COMMUNAL WASTE MANAGEMENT SYSTEM IN BRNO

WASTE COLLECTION

→ Dustbins of a volume of 60, 110, 120, 140, 240 and 1,100 litres serve for the collection of mixed communal waste. These bins are emptied between one and three times a week. A total of 55,800 of these dustbins had been deployed and 67,508 tons of mixed communal waste collected as of the end of 2016.

→ Waste that can be utilised for material purposes is collected in bins and underground containers located on public spaces in the city (paper, glass, mixed plastics, drinks cartons and aluminium drinks cans) and containers in apartment buildings (paper, mixed plastics, drinks cartons and aluminium drinks cans). The number of these collection containers is gradually increasing.

The city is providing the individual city boroughs with subsidies to establish collection points with containers for the more efficient collection of the utilisable



ble components of communal waste. The city has also built a total of seventeen underground containers in places where regular containers cannot be located.

WASTE COLLECTION CENTRES

Brno has a unique network of thirty-seven waste collection centres where people

can leave waste that can be utilised for material purposes, large waste items and dangerous waste at no charge.

All these centres also serve as collection points for household electrical equipment. Some also serve as RE-USE points, and some also accept construction waste and tyres, though a fee is charged for this service.

NUMBER OF CONTAINERS 2013–2016

Year	2013	2014	2015	2016
Paper	1,142	1,196	1,321	1,463
Plastics, drinks cartons and aluminium drinks cans	1,083	1,153	1,290	1,434
Glass (double containers)	1,009	1,003	956	910
Textiles	99	97	97	97

WASTE IN TONS 2013–2016

Year	2013	2014	2015	2016
Mixed communal waste	67,522	66,866	66,684	67,508
Dangerous waste	112	129	126	138
Paper **	9,766	9,801	9,774	8,249
Glass **	3,161	3,123	3,454	3,745
Plastics **	1,345	1,625	1,977	2,484
Textiles ****	469	460	324	545
Drinks cartons	44	64	77	109
Metals - waste incineration plant			1,540	1 540
Metals **	378	466	587	950
Aluminium	5	5	6	6
Polystyrene	21	21	24	28
Edible oils and fats		2	7	6
Biological waste at waste collection centres	2,532	2,451	2,376	2,656
Waste collection centres	* 10,332	9,638	9,868	10,838
Total	95,687	94,649	95,280	98,802
Waste utilisable for material purposes	17,721	18,016	18,602	20,318

THE LANDSCAPE

There are thirty small specially protected areas in Brno that are either natural monuments or nature reserves, including two national natural monuments – Červený Kopec and Stránská Skála – and one national nature reserve – Hádecká Planinka. The large specially protected landscape area the Moravian Karst overlaps Brno to the northeast in the city borough of Líšeň. There are also twelve areas of European importance in Brno within the NATURA 2000 network – Bosonohy Wood, Hobrtenky, the Southern Slopes of Hády, Kamenný Vrch, Medláňky Airport, Modřické Rameno, the Moravian Karst, Netopýrky, Pisárky, Podkomorské Lesy, Stránská Skála and the Svitava Valley. Only part of the Moravian Karst and Svitava Valley localities overlaps with the City of Brno. There are another seventy-one important landscape features protected by law. The city spends 350,000 crowns every year on caring for these sites, at which it has erected information boards. The city is also responsible for thirty-four protected trees and four protected avenues with dozens of individual trees. The commonest species among the lone trees are the pedunculated oak and the London plane, while the national tree the lime dominates in the avenues. Their care costs 100,000 crowns a year.

FORESTS

The people of Brno come into regular contact with forests as they cover a significant part of the city. Brno City Municipality has, for this reason, set

up the webpages LesWeb which can be used to plan excursions and find out more about the local forests and which offer up-to-date information, maps, recreation tips and other items of interest. The maps can be displayed by individual areas or particular interests – cycle paths, educational trails, principal footpaths and interesting destinations. The aim of the project is to emphasise the importance of the suburban forest, popularise it and act as a guide for visitors.

The city organisation Lesy Města Brna (City of Brno Forests) is responsible for taking care of Brno's forests. It currently manages more than 8,200 hectares, of which the vast majority are areas of forest. The remainder is made up of arable land and other areas.

TABLE – SIZE OF BRNO'S FORESTS (IN HECTARES):

Commercial forests	5 970
Protective forests	176
Special forests	
• suburban and recreational forests	1 611
• in water-source areas	37
• in protected areas	158
• in designated game preserves	166

The company Lesy Města Brna is not interested merely in the economic figures. It also provides significant recreational opportunities for the population of Brno. It leases out three Tree Houses that give people the chance of experiencing the forest atmosphere in comfort day and night. It is also responsible for the banks of Brno Dam Lake and Brno's unique wildlife park – Holed-

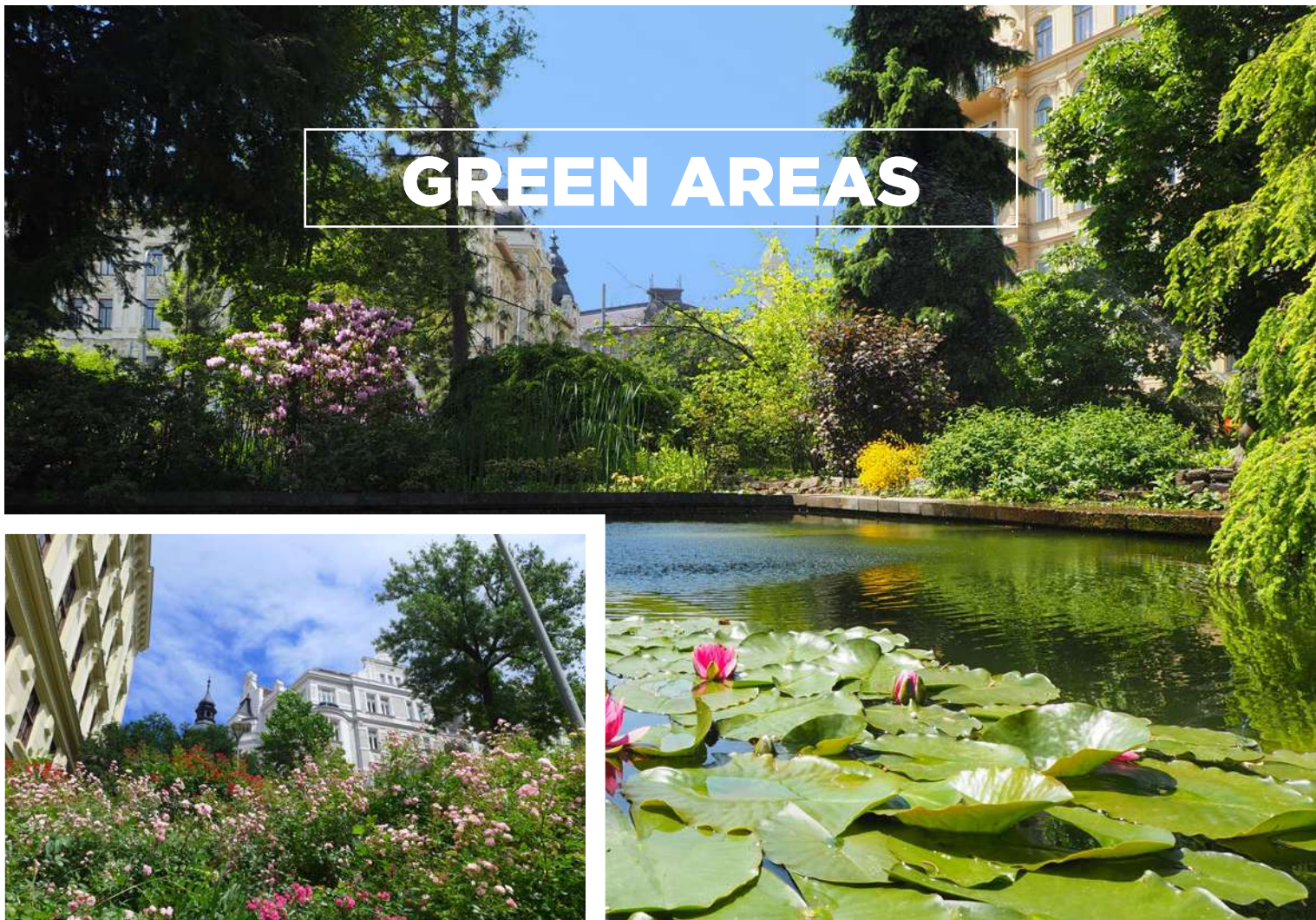
ná Game Preserve. Mouflon and other hoofed game are reared in the game preserve which lies between the Jundrov, Kohoutovice and Bystrc housing estates. The preserve's location in the middle of a big city is completely unique, as town children, who do not usually get the opportunity of seeing wild animals with their own eyes, can watch them in Brno every day. The preserve also has a small enclosure for wild pigs and a number of ponds. A signposted educational trail providing information about the reared game runs through the preserve, with shelters and seating providing rest and relaxation for local people and visitors from further away. The main paved paths can be used for the purposes of exercise and fitness.

THE RIVERBANKS

Riverbanks are a priority area on which Brno wants to focus in the coming years. A winning design for the riverbank in the immediate centre of Brno was chosen in last year's competition "The Bank of the River Svratka". A promenade, two fords and new cycle paths are to be created here at a cost of 360 million crowns from plans by Prof. Ivan Ruller.

Many civic associations and not-for-profit organisations have been livening up the city's riverbanks for a number of years with festivals and litter clearance events and the construction of temporary furniture. A project for the construction of a river sauna has obtained support from the new programme of municipal subsidies.

GREEN AREAS



The City of Brno has issued a decree containing a list of 265 of the most important green areas in its ownership. None of these areas may be reduced in size without the approval of the General Assembly. This year, the city began preparing a plan for the further management, maintenance and development of its green areas. This plan is to contain sections focusing on analysis and content that define approaches, technology and the extent of maintenance, including the economic aspect. The organisation Veřejná Zeleň Města Brna (City of Brno Public Greenery), funded by the city, looks after the city's parks. Its guiding principles are consideration for the needs of the population and the greatest possible protection of the landscape and the natural world.

CEMETERIES

The city has already drawn up a plan for the development, restoration and maintenance of the cemeteries in Řečkovice, Královo Pole and Tuřany in the period from 2016 to 2026. It is eval-

uating the current situation and planning further action and maintenance, including a schedule and costs. It is devoting particularly detailed attention to valuable trees. Similar documents will be drawn up for other cemeteries over the course of time.

REGISTER OF GREEN AREAS

The Register of Green Areas records the level of greenery in the Geographical Information System which contains basic areas, structures and vegetation in the city. It facilitates the effective administration and maintenance of areas of public greenery. This precise and up-to-date information is of considerable importance to the city as a whole:

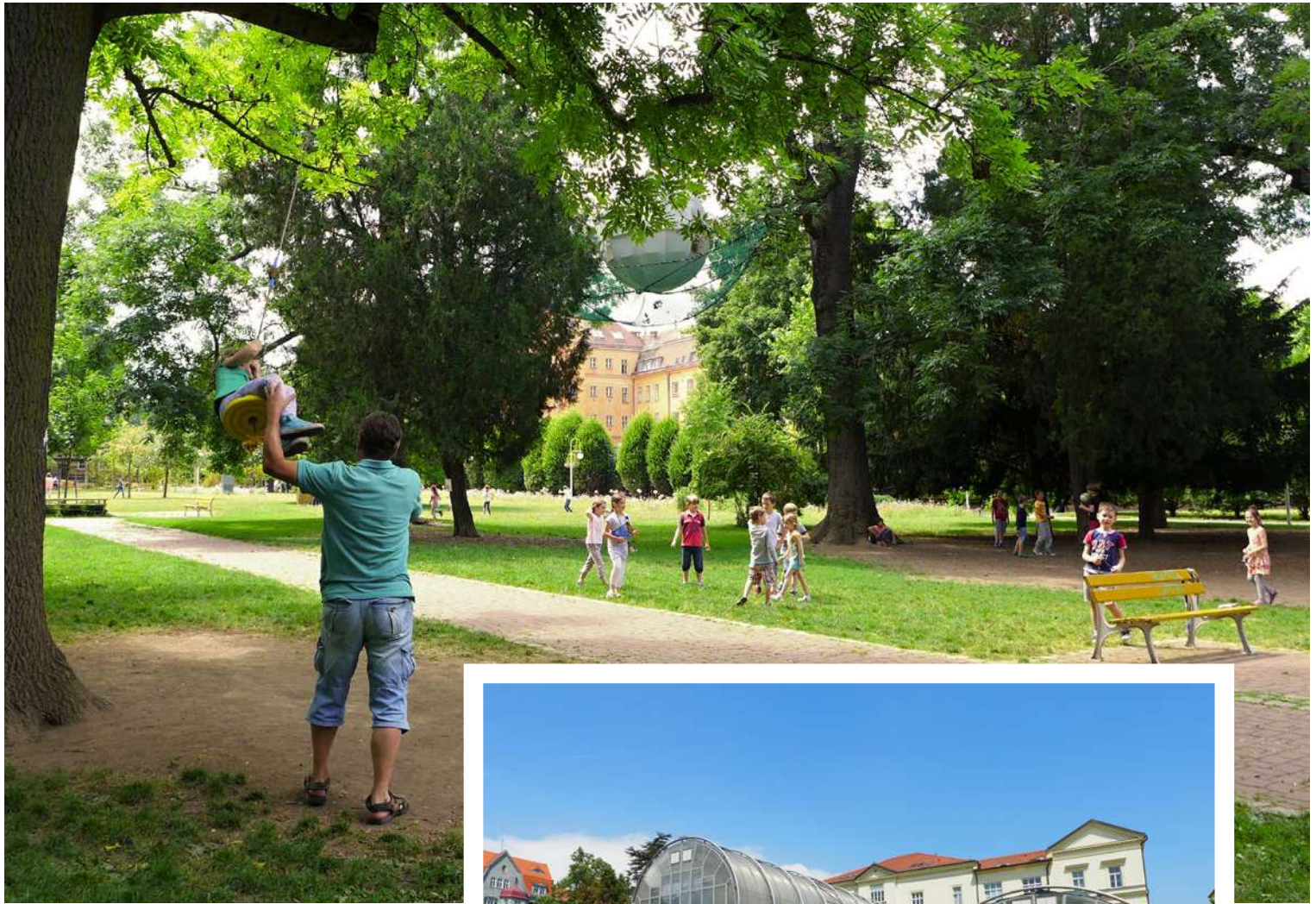
- It is a unique source of information on land use for the project Digital Maps of Brno.
- It is used in the allocation of non-specific subsidies from the city budget for individual city boroughs.
- It is also important to town planning, property administration, the processing of statistical documentation, etc.

SUPPORT FOR BIODIVERSITY

Brno is endeavouring to maintain green public areas as well-functioning ecosystems. Fallen trees, which are a unique biotope for animals, are sometimes left in suitable places for this reason and provide shelter for insects, birds and squirrels. There are also wooden birdhouses and feeding stations in the town parks where wintering birds can find a supplementary source of food. Špilberk Park has a specific semi-natural character and steep rugged terrain. Some of the meadows on its slopes are cut only twice a year to increase their biodiversity. They are better at holding water, prevent dust and pollen swirls, and provide shelter for many species of animal. There are also a number of beehives in the park.

PLANT PROTECTION

Sprays to combat fungal diseases and insects are applied only in the most necessary of cases in the interests of plant protection. Preparations based



on plant extracts or sulphurous or weakly cupric agents are preferred. In recent years, these preparations have been used primarily on a new pest – the Box Tree Moth. The elimination of invasive plant species, in particular Tree-of-Heaven, acacias, knotweed and the Tea Tree, is also a priority.

TRADITIONAL AND MODERN TECHNOLOGY

Brno also uses traditional forms of management alongside modern technology in caring for green areas. Certain areas are grazed by goats and Shetland ponies. The grounds of the company City of Brno Public Greenery are guarded by dogs. Lawns are cut in the spring by horse-drawn harrows. Electric vehicles have proven their worth in the collection of communal and organic waste, the distribution of woodchips and watering. Electric golf



carts are used in Špilberk and Lužánky Parks, primarily for collecting litter. A hot-water weed killer is also in use, removing weeds primarily from paved surfaces and pavements.

THE BOTANICAL GARDEN AND ARBORETUM

The Botanical Garden and Arboretum is an educational and special-purpose institution run by Mendel University in Brno that is open to the general public. The eleven-hectare site is divided into five sections. The Arboretum collections feature as many as 4,000 spe-

cies of orchid, 300 species of tillandsia, 2,000 perennials, 350 cultivars of large-flowered irises, 500 alpine plants and 4,000 species of woody plant.

MEDICINAL PLANT CENTRE

The Medicinal Plant Centre is a special botanical garden at the Faculty of Medicine at Masaryk University specialising in the non-commercial cultivation of medicinal plants for the purposes of research and education. It also opens to the public for several weeks in the summer, giving people the chance of seeing the wide range of medicinal, toning, di-



etary, culinary, aromatic and poisonous plants growing in the vegetable beds.

THE ZOO

Brno Zoological Garden is funded by the Statutory City of Brno. It is set on the attractive forested site Mniší Hora (Monk's Hill) in Brno-Bystrc on an area of more than sixty-five hectares. Brno ZOO also has a detached permanent aquarium in the street Radnická in the historical centre of Brno. The zoo is open year round and receives more than 300,000 visitors a year who can see almost eight hundred animals of two hundred and ten species. The greatest breeding successes achieved by the zoo include the first baby polar bear born in Czechoslovakia in 1976 and the first chimpanzee born here in 1967.

A programme of modernisation of the site began in 2000 with the construction of the Tiger Rocks Pavilion

for tigers and leopards. While their enclosures are conceived as a jungle, the interiors of the pavilion are designed to look like rock caves. Some of the animal enclosures are also accompanied by buildings in indigenous styles – the Canadian wolf enclosure, for example, features a log cabin in the style of the Canadian Indian tribe the Haida, the bison enclosure features a number of tipis of the Plains Indians, and the horse enclosure features a Mongolian Przewalski yurt. The next step was the opening of the Beringia exposition – a complex of enclosures for Kamchatka brown bears, wolverines and Siberian birds with a reconstruction of a Russian village. An African village with giraffes, lemurs and flamingos opened in 2014. The zoo currently specialises in breeding animals from Europe, northern Asia and North America.

CHILDREN'S PLAYGROUNDS

The creation and maintenance of children's playgrounds is the responsibility of the individual city boroughs. The state of their children's playgrounds makes an immediate impression reflecting on the given borough. There are around three hundred children's playgrounds in Brno which generally offer a sandpit, benches and various pieces of play equipment. A number of city boroughs have invested in them in recent

years to ensure that they conform to strict safety standards. Many soft impact zones have been created and all play equipment must be maintained in perfect condition. These playgrounds are usually fenced off to prevent access to dogs. There are also three special traffic playgrounds open to the people of Brno serving for road safety instruction and leisure activities.

SPORTS VENUES

Swimming, fitness, football, floorball, basketball, volleyball, baseball, tennis, table tennis, badminton, ice hockey, parkour, skateboarding, Pétanque, slackline, golf, showjumping, rowing, roller-skating or just a run round an athletics track or along a signposted footpath in the wild – Brno offers its population a truly wide range of sports facilities. The city has around a hundred and fifty outdoor public sports sites, large and small, of all kinds.

CYCLE PATHS

Cycling is an extremely popular sport in the Czech Republic and the area around Brno is ideal for it. In view of the hilly terrain and the historically complicated traffic situation, the development of cycling within the city is a permanent challenge for the leadership of the city. To date, forty kilometres of cycle paths have been created, and more than twenty-five kilometres of road adapted with cyclists in mind. Construction of a total of two hundred kilometres of new cycle paths is planned. Brno City Municipality has, at least, opened the pedestrian zone in the centre of town to cyclists, and "bike sharing" has begun to take off in Brno spontaneously.

THE DAM – AGAIN

Brno Dam Lake and the surrounding area are transformed into an enormous sports centre in the summer, though even in winter, when it freezes over, it attracts thousands of people who go skating on improvised tracks, play ice hockey or just go for a walk on the ice.

SEASONAL AND PERENNIAL PLANTING



FLOWERS IN THE STREETS

The company City of Brno Public Greenery establishes new flowerbeds in the streets of Brno every year. These are mostly beds of perennials and annuals grown from seed combined with bulbs. There are smaller numbers of traditional beds of pre-sown annuals, as these require intensive maintenance and watering. Meadow beds are also sown and are maintained as lawn after flowering has come to an end. A large number of bulbs are planted in the streets every year, most of which bloom in early spring. In addition to flowerbeds, you can also see suspended flowerpots, mostly with petunias and geraniums, in the city streets. Brno is trying to reduce the cost of creating and maintaining flowerbeds, while preserving their aesthetic quality. It places considerable emphasis on an ecological approach to creating and caring for its flowerbeds. It also presents the work it does to the public and obtains feedback from the city's population.

FLOWER PLANTING POLICY

→ The creation and maintenance of flowerbeds is conducted exclusively without the use of herbicides using the ecological Wave Weed Control method which involves killing weeds

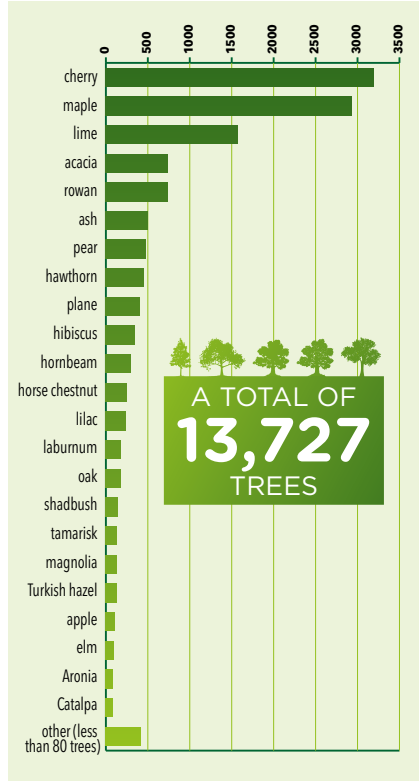
- with hot water at a temperature of 95–98 °C.
- Vermicompost – the product of composting with the help of worms – is used as fertiliser.
- The planting of flowerbeds respects specific site conditions to reduce the costs of adapting the site and soil. Plant species that will do well in the given bed without great demands on watering and maintenance are chosen.
- The city prioritises manual gardening work – weeding and digging by hand in beds of perennials.
- The city informs the public of its planting programme with signs placed by new flowerbeds in the streets and with the use of social networks.
- The city follows the public response to flowers in the streets which have been extremely positive. People appreciate the neatness of the flowerbeds, while the manual work performed in the flowerbeds also attracts interest.

TREES

In addition to the town parks, the staff of City of Brno Public Greenery also care for avenues of trees in Brno's streets, where they have planted almost 14,000 trees over the last twenty years. Cherry trees, which are beautiful in blossom in the spring, are the trees most com-

monly planted, followed by maples in second place and the Czech national tree the lime in third place. These three together make up more than half of all the trees planted. The distribution of planting is shown in the graph below.

SPECIES OF TREES PLANTED IN AVENUES IN THE STREETS 1996–2015



ENVIRONMENTAL EDUCATION



Brno supports ecological education every year in the form of subsidies. In 2016, a sum of 2.7 million crowns went largely to non-governmental organisations, funded organisations established by other bodies of the public administration, charities and foundations. Two special programmes were opened for this purpose – Support for Ecological Education Projects in the City of Brno and Support for City-wide Environmental Education Programmes and Events.

In 2016, the support provided by the programme Support for City-wide Environmental Education Programmes and Events went largely towards the organisation of the city-wide Earth Day and natural history education for the people of Brno, and for children and young people in particular. This was organised by Lipka – Environmental Education Institute, Brno – which is funded by the South Moravian Region. The programme also subsidised ecological education activities at the Open Garden run by Nadace Partnerství (the Partnership Foundation) with which the City of Brno has closed a contract on the completion of a town farm of an area of 0.7 hectares.

BRNO EARTH DAYS

The Environmental Department co-organises the Brno Earth Days for the purpose of increased promotion of Earth Day on 22 April. The event has been held over ten days every year since 2007 in the month of April. The city has long made contractual contributions towards the operation of the information service about the environment in Brno known as “Green Telephone”. This service is operated by the Czech Union for Nature Conservation’s organisation Veronica.

HLÍDKA

The City of Brno has also converted the former Baroque powder-house built in 1728 on the Špilberk hillside into the Ecological Education Centre Hlídka which works with Brno Zoo. In 2016, the Ecological Education Centre Hlídka beneath Špilberk was visited by 4,694 people. Ecological education programmes are also offered to children from nursery schools and the first level of primary school. Eighty-six of these programmes were offered in 2016 and were attended by 1,647 children. These

programmes are held both at the Hlídka centre itself and in the grounds of Brno Zoo. Five interest groups were run at the centre as extracurricular activities for toddlers, nursery school children and the first level of primary school. The staff at the centre also devoted their time to the young visitors to the nursery centre and to people attending educational events at Hlídka and the Zoo. Seven summer day camps for children aged from 5 to 11 were held during the summer holidays.

SAKO AND THE ENVICENTRE

The city company SAKO, which operates the ecological education centre ENVIcentre, is engaged in the most significant environmental education. The centre teaches children and young people and offers educational programmes for schools and the public. It work with Brno’s Environmental Department which mediates contact with primary schools, mayors and other groups. In 2016, the centre was visited by more than four thousand people for whom a carefully formulated programme was prepared:

→ Workshops focus on primary school children and explain to them the importance of waste recycling and the system in place in the city. Work with children is conducted on a “touch, try, look” basis. They can play with



a moving demonstration model of a recycling line featuring the technology of a model city and an adapted garbage truck with replica dustman's clothing. On the site of the incineration plant, older children get to see what happens to sorted waste and what a real sorting line and its intermediate products look like.

- The ENVicentre also offers a number of kinds of tour. The programme for these tours is adapted for various age groups with corresponding levels of specialisation and tour length.
- Ecological education events are another entertaining and enlightening way of seeing the waste recycling system. The event "Dustmen

Among Us" gives people the chance of looking behind the scenes of the Waste Collection Division. "The Incineration Plant at Night", on the other hand, offers the chance of experiencing the remarkable industrial atmosphere of the incineration plant at an unusual time of day.

The Open Night operates in a similar way. In 2016, it was attended by three thousand people who got the chance of enjoying artistic performances, a tour, the ceremonial lighting of the site, a mobile cinema and a large number of other attractions.

The project "Cleaning Up the Czech Republic" is based on the international

ally proven model "Let's Do It!" which aims to fight illegal dumps and clear them up. The aim is to engage the largest possible number of volunteers in clearing up illegal dumps and freely scattered litter from our towns and countryside. SAKO also takes part in this project and provides bags, gloves and tools.

Regular training focuses, first and foremost, on composting within the MINIWASTE project mentioned in the chapter The Environment.

The company SAKO also participates in a large number of other charity events and events for children. It prepares educational materials, organises competitions and takes advantage of space in the city media and on public transport to mount environmental campaigns.

THE OPEN GARDEN

The Open Garden is an education and advice centre in the very centre of Brno that has an educational garden featuring four elements demonstrating the agricultural cycle from the earth to the kitchen. It offers programmes for schools and a number of interactive exhibits that demonstrate sources of renewable energy. Children can try out herb growing, baking in a kiln, feeding rabbits and beekeeping.



ENGAGING THE PUBLIC



THE PARTICIPATORY BUDGET

The city launched the first year of its project “It’s Up to You”, which gives the people of Brno the chance of deciding on certain parts of the budget, at the beginning of 2017. This is the very first participatory budget at the city level anywhere in the Czech Republic. The city earmarked twenty million crowns for the first year, with the maximum amount provided for any given project being two million crowns. People can suggest the projects they would like to be implemented or things they would like to see being built in the town for the given money.

Representatives of the city judge which of these proposals are feasible in technical and legal terms. The citizens of Brno then vote on which projects are to be put into action. The project has its own webpages and is promoted by the city in public spaces such as city light vitrines (CLV) at tram and bus stops. To date, the people of Brno have proposed a hundred and sixty-nine projects which have already received almost forty thousand votes.

These include proposals for new pavements, cycle paths, city bicycles, barbeque points, educational games on public transport in Brno, and a large number of other ideas.

SMART BRNO

The participatory budget was created as part of the Smart Brno concept and attempts to engage the population in decisions about public finances and to support the development of civic society in the city.

The city expects it to make the population better informed and to engage it in shaping the town budget, to improve communication between the people and the authorities, to engage citizens in strategic decision-making and to strengthen relations between neighbours and within the community.

SUB>URBAN, REVIVING THE TOWN SUBURBS

Brno has also joined the international project sub>urban, reviving the town suburbs, which focuses on areas between the existing built-up “inner” city, large housing estates and scattered building habitation around the edge of town. The pilot locality is eighty hectares in size and connects three of the city boroughs. Emphasis is placed on revival and effective use of the area by means of meetings and discussions engaging all the people involved in the given area. It aims to engage the owners of land, property and allotments in the given locality and the surrounding area, private com-

panies, institutions, the local population, the city and its individual city boroughs. The first meetings were held at the end of 2016, and a local action plan for the revival of the area is to come out in 2018.

CIVIC ASSOCIATIONS

The City of Brno supports many civic associations, societies and foundations engaged in nature conservation. One of these is the ecological institute Veronica which holds an annual poll to find Brno’s Tree of the Year. The poll gives people the chance of finding out just what makes the nominated trees so extraordinary. A picnic is held by the winning tree which is then given special expert care by City of Brno Public Greenery.

ALLOTMENTS

Allotment holders are a specific group in the Czech Republic. Urban and suburban allotments began to be created at the beginning of the twentieth century, and some have found themselves in the centre of town as Brno has expanded. For many people, they still represent a place for rest and relaxation, fruit and vegetable growing and a pleasant climate in otherwise densely built-up parts of town.

TOURISM

Brno is receiving more and more visitors as the years go by. The statistics show that around 540,000 tourists came to Brno in 2016 according to the recorded number of arrivals. More than half of these are tourists from abroad. One of the principal goals in the area of tourism is to increase the total number of people visiting Brno by 25 % by the end of 2020 (as compared to the figure for 2015). This plan envisages a 20 % increase in the number of Czech visitors and a 30 % increase in the number of foreign visitors.



FOREIGN AWARDS

Positive publicity in the foreign press may increase the level of interest from visitors. The local architecture, bars and gastronomy have been noticed by leading media organisations around the world such as the Guardian and the New York Times. The city has organised a total of forty-five press trips.

In the rankings that can be found on the server Numbeo.com, the Moravian metropolis has overtaken not just Prague, but also some of world's great cities such as San Francisco, Tokyo, Paris, London and New York, in terms of the quality of life it offers. Brno was ranked in 18th place in Europe and 42nd in the world. According to the British server Quacquarelli Symonds, Brno is as high as 4th among the most popular student cities.



CULTURE

Brno is a cultural metropolis in the true sense. The Reduta Theatre is the oldest theatre building in Central Europe and the town also has many other theatres. They offer visitors musicals, the ballet and concerts by the Brno Philharmonic, for which a new concert hall is currently being built. It is to be named after the famous composer Leoš Janáček who is traditionally connected with the town and in whose honour a number of

events are held. Hundreds of thousands of people also visit the local museums every year, such as the Anthropos which portrays the life of prehistoric people. The place that attracts the second largest number of visitors, after the Zoo, is the new fun science park VIDA! which aims to popularise science in interactive form. In 2016 alone, it was visited by 232,000 people.

The famous functionalist Villa Tugendhat celebrated the fifteenth anniversary of its inclusion on the UNESCO World Heritage List in December 2016. The villa is characterised by timeless architectural design, unique structural and technical solutions, exotic natural materials, remarkable technical fittings and sensitive incorporation into the landscape. While the villa was visited by 9,200 people in 2001, it has been receiving around 30,000 visitors a year

since its reopening. Guided tours are not the only way for people to see the villa; a great many cultural events are also held here, mostly concerts, dance performances, lectures and even weddings.

PROMOTION

More than 150,000 tourist guides to the city with basic information about Brno are distributed every year to tourists who can also visit the portal GO to BRNO. The monthly publication KAM, published by the Tourist Information Centre (TIC), is a guide to the town's cultural life. The city holds a number of other attractive events, such as the international firework festival IGNIS BRUNENSIS, a Moto GP World Championship race, and the traditional Easter and Christmas markets and rosé wine festivals.



FOLKLORE

Modern Brno was formed by the merging of a number of smaller settlements whose buildings still retain at least part of their village character to this day, and there are a number of folklore traditions preserved by the local people associated with this. These traditions include the local festivities for which people dress in traditional festive costumes, with folk songs and folk dancing, parades and traditional dishes. Other traditions that have remained popular include the Witch Burning, the spring Morena ritual and Easter, when the boys plait birch rods and receive hand-painted eggs from the girls.

LEISURE

New traditions are, however, also being established. The food festival

in Slovanské Náměstí, for example, has become extremely popular and is regularly attended by thousands of people on the lookout for exotic foods. Another opportunity for tasting excellent food is provided by the festival at Špilberk Castle which lasts for several days. Opportunities for establishing a new tradition sometimes seem to appear almost of their own accord. The reopening of the street Minská after long reconstruction, for example, turned into a great street party. It was such a success, in fact, that the street is again to be closed to traffic for a day a year on for a repeat of the event.

Barbeques in the park are also becoming increasingly popular. Brno is taking an accommodating approach to this trend and has established four public barbeque points by Brno Dam Lake, one on Kraví Hora and another one in Lužánky Park.

A similar atmosphere can also be enjoyed almost every day in the hot months of the year at the "Golden Cross" made up of several streets in the very centre of Brno. Many young people can be found having fun by Saint James' Church every evening. Clubs and bars in the area have begun organising cultural performances for them, and sitting on the curb here has become something of a new phenomenon in Brno.

COMMUNICATION

The representatives of Brno greatly respect the prestige and the concept of the Entente Florale Europe competition as the city places long-term emphasis on green areas and the natural world. It was a great honour in 2016 for the city to be able to host the announcement ceremony for this year's competition. The programme also featured a two-day expert conference.

This event was something of an augury of Brno's direct participation in the competition this year. Brno City Municipality has approached the promotion of the competition among the population in a number of ways:

It has published basic information, including links to related projects and events, on its webpages. It has held



a public photography competition on Facebook in which the people of Brno can proudly display the flowers they have grown and win valuable prizes. Information on Entente Florale is also available on the webpages of the competition's partners.

The city's participation in the competition is being promoted by banners on trams and posters inside public transport vehicles, as well as banners at key transport junctions including the Main Railway Station. Promotion in public spaces also takes in forty posters on lampposts, two city light vitrines and four large banners in Lužánky Park, Špilberk Park and Denisovy Sady.

Information about the competition has been provided by an article in the city magazine Metropolitan, a special supplement in the bestselling regional publication Deník Rovnost, and a great deal of material in the news bulletins of the individual city boroughs. Journalists have also been invited to a competition day so that they can meet representatives of the international jury.



This publication has been issued on the occasion of the involvement of the Statutory City of Brno in the international competition ENTENTE FLORALE EUROPE 2017.



An international competition held by the European Association for Flowers and Landscape (Association Européenne pour le Fleurissement et le Paysage - AEFP) which is a non-governmental not-for-profit organisation based in Brussels.

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