

#brno2050



The Proposed City Vision is Ready

Work on it with us!

In the spring an expert team presented the key areas the city should deal with.

During the summer you voted on these and commented on individual points.

Here we are presenting the first proposal of the vision also with the reactions of experts to your points.

Until 21 September you can assess this proposal and help us set priorities.

Then we can set out towards Brno 2050.

Introduction

We are presenting the first draft of the city vision for the next generation. One which in its conceptual steps constantly increases the quality of life, giving people, companies and institutions a chance to contribute to effective administration and sensitively work with their resources.

Our goal is to make maximum use of the potential of a city which should be a Central European centre of the knowledge economy, world-class research and development and quality culture and sport. But at the same time continue it should to be a pleasant place for daily life, which offers each of its inhabitants a balance between working careers and leisure activities.

We want to be a city that is open, accountable, respectful, efficient, diversified, modular and smart. It can only achieve this when every person, every company and every institution will understand the steps of the city takes, can share its values and influence its further development.

Together we are creating a city for future generations.

Draft Text of the City Vision

Brno in 2050 is in international terms a synonym for an attractive and at the same time sustainable city.

Brno's citizens appreciate the high quality of life in a city that offers them fulfilment in work and enterprise, entertainment and relaxation. The fruits of research and innovation are joined to the economic prosperity of individuals and companies. Urban landscape blends into the surrounding natural environment. Openness and cohesiveness on one hand and a healthy and resilient environment on the other create a home and a secure base for half a million people.

Brno's citizens are aware of the scarcity and value of natural resources and promote their effective use, so that the city has still plenty of water, energy and resources for its

development. They want to leave the city to future generations in the same or an even better condition.

Brno's citizens perceive that the city is managed in vital, modern and efficient manner. Administration and development of the city is based on cultivated public debate and long-term cooperation between all partners. The city works for its inhabitants and they can be proud of their city.

What is Brno Like in 2050?

Attractive

Brno has become a synonym for **an attractive city where life is good**. It is a confident, developing city, appealing for the lives of existing and new residents. It gives them space and opportunities for professional, personal, social and civic life. Brno is a refined, vibrant city with a unique identity, which people love. And it is a love that lasts a lifetime.

Developing

Brno has emerged from international anonymity, with the reputation of a **significant university and R&D centre in Central Europe**. It is a **prospering city**, achieving excellence, development and manufacturing. Brno values knowledge and experience, fresh innovation and bold technological solutions. And this is well-known – its reputation attracts new talent and experienced staff and scientists into the city. Anyone who wants can quickly get into the **centre of events in Brno comfortably from anywhere in the world**.

Lively

Brno is made up of its people. All of them and without difference. It is an **open, tolerant and socially cohesive city**. No-one is a second-class citizen. It supports equality and mutual respect between all its citizens and is accommodating to new arrivals. Brno's inhabitants know **how to enjoy and savour life in the city**. Its distinctive cultural and creative scene helps to create the unique identity of the city and its hospitality is renowned. Brno's citizens have a healthy lifestyle and the city provides them plenty of opportunities for active leisure and quiet relaxation.

Harmonic

The linking of the natural and urban landscape in Brno is unique. This compact city with vibrant public spaces is interwoven with a comprehensive system of greenery, natural linked to its attractive natural hinterland. Brno's rivers and their surroundings form the green backbone of the city. Brno has been able to effectively utilise and further develop its architectural and urban heritage, linking them with modern architecture and new uses. The city is accessible and it is easy to live and move around in it even without a car. As a result of all this Brno has been able to create a **healthier environment for all**.

Sustainable

Brno deals carefully and effectively with resources and energy, its systems and technology are environmentally-friendly and at the same time robust. Concern for the environment is a natural part of people's thinking.

Well Administered

Brno is **administered well and with love**. The system of administration of the city is simple, comprehensible and accommodating to the city's inhabitants. Brno's citizens have long taken an interest in the city's development and actively participate in it. For a long time however this has not been limited to Brno alone – the city with its hinterland functions as a unified whole – the Brno Metropolitan Area.

Table of Contents

QUALITY OF LIFE

Table 1 Healthy people	6
Table 2 Coherent and respectful city	9
Table 3 International city	12
Table 1 Cultural	14
Table 5 Healthy living environment	16
Table 6 Nature in the city	17
Table 7 Compact and balanced city	19
Table 8 Architectural face of the city	21
Table 9 City with affordable housing	23
Table 10 Prosperous city	24
Table 11 Central European Research, Development and Innovation centre	26
Table 12 Educated university city	28

RESOURCES

Table 13 Globally accessible city	30
Table 14 City with efficient and sustainable mobility	32
Table 15 City with effective water management	34
Table 16 Energy-saving, independent and resilient city	36
Table 17 Self-sufficient and circular city	39
Table 18 Clean city	41
Table 19 Safe city	42

ADMINISTRATION

Table 20 Shared vision and good name of the city	45
Table 21 Functioning Brno metropolitan area	46
Table 22 Efficiently functioning electronic administration	48
Table 23 Participative administration	51
Table 24 City open in the area of data	52

QUALITY OF LIFE

Healthy people

Description of the value

In 2050, Brno is a healthy city with healthy inhabitants, reflecting both high-quality and affordable health care, as well as individual interest and activity of the city's inhabitants. Brno is a city with a healthy demographic structure, which is reflected in the corresponding demographic indicators. The city pays adequate attention to vulnerable population groups (such as children, pregnant women, the elderly population, the long-term and terminally ill) who are receiving individualized interest and care.

Benefit for the city

Quality of life is inextricably inherently linked to the health of the individual or the population. By improving the health of the inhabitants of Brno, there will be not only increase in the subjectively perceived quality of life, but also an improvement in economic indicators (such as health and social care costs). Residents will benefit individually and generally from the disclosing of information about those factors that affect their state of health.

Guarantor

Julie Bienertová Vašků

Associate Professor Julie Bienertová Vašků works at the Faculty of Medicine of the Masaryk University and at the Research Centre of Toxic Substances in the Environment at the Faculty of Science, where she systematically deals with the problems of adipose tissue and related diseases, especially obesity. In this disease, the problem also examines the interaction of the individual's genetic background with external factors. In addition to adipose tissue, the issue of stress and its measurement is at the centre of her research interest. Julie Bienertová Vašků is the author of a number of articles in renowned foreign magazines, one international patent and a number of chapters in Czech and foreign monographs.

Table 1 Healthy people

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Protect and support the health of the population, including the promoting of prevention and a healthy lifestyle	Average life expectancy	Number of years	M (76.73) F (82.54)	M (84.5) F (89.5)	
	Healthy lifespan (healthy life expectancy)	Number of years	Will be surveyed – so far at the nationwide level		
	Infant mortality (up to 1st year of life) - 5-year period	per mille	2.68	2	

Provide better and more accessible health care with a strong emphasis on prevention and including measures to reduce the number of chronically ill	Satisfaction with the accessibility of health care services	% - Sum of % of responses "Very satisfied" and "Rather satisfied" / or, as the case may be, a recalculated index	89.5 % (28.3 % + 61.2 %) / 1.81	1.2	
	Satisfaction with the quality of health care services	% - Sum of % of responses "Very satisfied" and "Rather satisfied" / or, as the case may be, a recalculated index	84.3 (25.0 % + 59.3 %) / 1.89	1.2	
	Number of practitioners per 1,000 inhabitants	Number	9.5		
	Number of hospital beds per 10,000 inhabitants	<i>Number</i>	105.24		Entire city including its metropolitan area
	Proportion of inhabitants for whom a minimum health care is not accessible	%	<i>The proportion is not known at the moment</i>	<i>ditto</i>	Entire city including its metropolitan area
	Number of deaths caused by circulatory diseases related to the whole population of Brno (per 100,000 inhabitants)		458.1	300.0	
	Intentional self-harm (number of suicides per 100,000 inhabitants)		14.31	5.56	
Promote a healthy demographic structure of the city, using data on the environment and health data	Index of ageing		135.8	120	
	Natural growth (gross level of natural growth)	<i>Number</i>	1.65	2.22	
Support families across generations, promote intergenerational cohesion, encourage solidarity in providing health and social care, support palliative care facilities	Proportion of facilities connecting health and social care provision, number of palliative care facilities	%	<i>The proportion is not known at the moment</i>	<i>ditto</i>	Entire city including its metropolitan area
Increase health literacy of the population through popularization programs aimed at frequent illnesses (e.g. ischemic heart disease, tumours, cerebrovascular episodes, mental illness, fertility disorders, dental health, etc.)	% of the city's inhabitants who have attended a popularization or preventative programme, decrease in morbidity caused by selected diseases, prolongation of the medium / healthy life expectation	%	<i>The proportion is not known at the moment</i>	<i>ditto</i>	Entire city including its metropolitan area
Promote healthy lifestyle, including the endorsement of healthy nutrition and physical activity (recreational and sport activities)	Proportion of inhabitants aged 15+ who practise recreational sports	%	60	80	Entire city including its metropolitan area/Brno
	Prevalence of obesity	%	will be surveyed	lower proportion	

Coherent and respectful city

Description of the value

In 2050, cohesion, mutual help and interest in each other as a standard part of people's lives rule among the inhabitants of Brno. Local companies contribute to the growth of the city on the basis of the concept of social responsibility. The city offers a broad range of public and social services of adequate quality, scale and availability, and pioneers innovative projects. Cooperation between state institutions, the self-government, the non-profit and the profit sectors leads to the elimination of social exclusion and poverty. People started to improve and develop relationships within their families and communities and organizations, and the city supports them on that – it works on the fostering of mutual respect among different groups of inhabitants. Thanks to this, Brno has become a place where people approach each other with mutual respect, confidence and without fear of difference.

Benefit for the city

The inhabitants of Brno have mutual trust, understanding and cooperation between the younger and older generations (a positive relationship and help to each other), the rich and the poor (natural altruism, social enterprise) and the majority and minority groups (mutual respect and help). Thanks to the fulfilment of this value, Brno is a city in which not only the elites live well, but also all the population groups; thanks to the cooperation of the public, non-profit and private sectors and an active involvement of the inhabitants themselves, the city managed to prevent the opening of social gaps. The favourable social climate of the city and the promotion of social innovations contribute to the reputation of the city as a pleasant place to live, a leader in the field of equality, solidarity, mutual cooperation and respect for the inhabitants among themselves. Thanks to this, Brno attracts new residents and visitors and regularly rises in the charts of the quality of life. The fulfilment of this value is positively reflected in the fulfilment of other areas of the quality of life – whether it is health, the development of science and innovations or the international character of the city.

Guarantor

Jaromír Hron

Chairman of the Association of Non-Government and Non-Profit Organizations of the South Moravian Region (ANNO JMK). From 1991 to 2001 he worked as a regional secretary of the YMCA in the Czech Republic, as an educational consultant and manager of YMCA Brno. From 1998 to 2006 member of the Executive Committee and then Chairman of the Brno Association of Non-Government and Non-Profit Organizations, since 2006 Chairman of the

Executive Committee of ANNO South Moravian Region. Since 2003, he has been working as a member of the Executive Committee of ANNO Czech Republic.

The guarantor's proxy is Ing. Petra Stupková, petra.stupkova@email.cz.

A member of the guarantor's team is also Petra Havlíková (petra@nesehnuti.cz), a worker of the organization Nesehnutí (NEzávislé Sociálně Ekologické HNUTÍ – Independent Social-Ecological Movement), coordinator of the Women's Rights Are Human Rights programme.

Table 2 Coherent and respectful city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Strengthening cohesion among city residents	Number of socially excluded persons or persons at risk of social exclusion	Number	estimated about 30,000	5,000	Entire city
	Citizens' trust amongst each other. (Can people trust each other in Brno?)	%	59 % (in Brno have trust definitely yes 6 % of inhabitants, rather yes 53 %)	90 % (sum of definitely yes and rather yes)	Entire city
Increasing the level of quality and availability of care and services for the elderly, the disabled and other groups of people in need of social care and social help, including the support for care providers	Satisfaction with the availability of social services	Sum of % of responses "Very satisfied" and "Rather satisfied" / or, as the case may be, a recalculated index	52.7 % (16.1 % + 36.6 %) / 1.98	at least 90% / 1	Entire city
	Satisfaction with the quality of social services	Sum of % of responses "Very satisfied" and "Rather satisfied" / or, as the case may be, a recalculated index	47.4 % (13.8 % + 33.6 %) / 2.07	85% - 90% / 1	Entire city
	Capacity of field and out-patient services, including the use of modern ICT and assistive technologies or alternative solutions to standard social services	annual capacity (number of clients per year)	about 59,000	Increase to about 80,000 (or expressed as a percentage – increase by 25 % to 30 %)	Entire city
	Capacity of residential social services, including the capacity of alternative solutions to classical residential services	number of beds	about 4,200	Increase to about 5,200 – 5,500 (or expressed as a percentage – increase by 25 % to 30 %)	Entire city
	Capacity of services to support carers and facilitate the care	annual capacity (number of clients per year)	At the moment, no comprehensive data exist; specific research	Can be set only after conducting the research.	Entire city, including its metropolitan area

			<i>in this area should be carried out.</i>		
Reducing the number of socially excluded localities and preventing the emergence of new ones	Number of socially excluded localities	number	7	0	Brno-Central and Brno-North – the so-called „Brno Bronx“; to a lesser extent also some areas of the city districts Brno-South, Židenice and Královo Pole.
	<i>Number of socially excluded residents in the city of Brno</i>	number	<i>estimated 12 – 15,000</i>	<i>5 000</i>	<i>Entire city</i>
	<i>Number of commercial accommodations where socially excluded people live</i>	number	45	0	<i>Entire city</i>
	<i>Number of socially excluded people living in commercial accommodations</i>	number	<i>estimated about 1,000 – 1,200</i>	0	<i>Entire city</i>
Systematic support for social innovations (support for alternative solutions to classic social services, development and use of modern ICT and assistive technologies, support for social entrepreneurship, etc.)	Openness of the city to new, gradually emerging innovations	Text (impossible to quantify) - at the moment, no comprehensive data exist; specific research in this area should be carried out.	This may include, for example, the number of social enterprises, the number of people using ICT and assistive technologies, the number of alternatives to standard services, the number of start-ups in the social care field, the number of PPP projects in the social care sphere, or the degree of satisfaction with innovation support, the return on investment in innovative and "smart" social solutions..	<i>Can be set only after conducting the research.</i>	<i>Entire city, including its metropolitan area</i>
Promotion of diversity and ensuring equal approach to all inhabitants (gender equality, increasing tolerance towards different generations, ethnicities and other minorities)	Level of discrimination and intolerance towards different groups	Values achieved in Brno as compared to the nationwide value in the survey: http://www.europaeu.org/Discrimination-in-the-EU-in-2015	Survey must be conducted at the city level	20 % better results than in the nationwide survey	<i>Entire city, including its metropolitan area</i>
	Proportion of projects / campaigns endorsed by the city promoting equality, interconnecting of communities and mutual respect among diverse population groups	%	Metrics must be created	At least 5 % campaigns	<i>Entire city, including its metropolitan area</i>
Increasing solidarity and corporate social responsibility (voluntary	Number of volunteer hours (hours worked by NGOs in 2011-2014, large as well as	The average number of hours per	48	58	entire city

assistance, donation, ...)	small organizations)	volunteer worked in NGOs in one year			
	Proportion of legal entities providing donations in the total number of legal entities	%	4.2	5.46	entire city

International city

Description of the value

Brno as an international city is characterized by its diversity and openness to people from different countries, ethnic groups and cultures. Its basic traits are respect for difference, ability to accept new ideas and faith in dialogue. Thanks to its tolerance, it attracts foreigners who want to participate in the development of the city and, thanks to a thoughtful strategy, encourages their successful integration into the local community. Local businesses and the city itself have numerous contacts abroad that they can effectively transform into specific improvements and innovations in products, services and processes.

Benefit for the city

The iron law of health for any ecosystem is its diversity. The diversity of Brno will bring along a greater ability to combine the old and the new and respond to new challenges. The more open the city is to the outer world, new people and new ideas, the greater its creative dynamism will be. As in the historical past, the success of Brno's businesses, academic institutions, public and private services, as well as its lively and varied culture will depend on rich international relations and talents coming to Brno from the outside. /... will be strengthened by rich international contacts relations and talents coming to Brno from the outside.

Guarantor Don Sparling

Main Consultant at Brno Expat Centre. Born in Ottawa, Canada. At Universities of Toronto and Oxford he studied English language and literature. He first arrived in Czechoslovakia a couple of weeks before 21 August 1968, and in March 1969 he took a job as a lecturer at the Brno State Language School; later he also worked at Masaryk University in Brno (among others as Director of the Centre for Foreign Studies). As a manager, he led the Brno Expat Centre for several years, and is still active there.

Table 3 International city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Attract talented foreigners of all categories and keep them in the city	number / proportion of foreigners living in Brno; source: Czech Statistical Office	Number / % of population	7% (27,000)	20%	Entire city
Create a comprehensive system of services and mechanisms in the public and private sectors for the reception and integration of foreigners	Functioning system of comprehensive care of foreigners	Functioning system	Not yet	Yes	Entire city and its metropolitan area
Strengthen the school	Number of schools with	Number	2	6	Entire city

system enabling children of foreigners to study at elementary and secondary state schools and Czech children to obtain education in a foreign language	bilingual tuition (Czech plus a foreign language)				
	Number of schools with tuition in the Czech language, which have a special programme for the integration of children of foreigners	Number	2	15	Entire city
Ensure effective collaboration between the city of Brno and its foreign partners	Percentage of application of the outcomes of joint projects integrated into the city structure	% of outcomes	not available thus far	100%	Entire city
Encourage the presence of Brno-based companies abroad	Number of branches abroad	Number	not available thus far	shall be defined consequently to the current value, growing trend	Entire city and abroad
Get some EU or UN international institution of medium importance to settle in Brno	Number of international institutions in Brno	Number	0	1	Entire Czech Republic

Cultural City

Description of the Value

In 2050 Brno is an internationally recognised cultural metropolis. Its successful cultural and creative scene is built on a combination of tradition and experiment and actively influences the latest global trends. Culture is the cornerstone of the city's identity, filling the public space and the everyday lives of its inhabitants and is the catalyst for their mutual understanding. With its unique creative atmosphere the city is a popular destination for creators and visitors from around the world.

Benefit for the City

The culture on offer in the city is varied and available to the widest possible range of visitors from Brno, the Czech Republic and abroad. It features good cooperation across cultural actors, educational institutions and different cultures. It delivers an increased quality of life for its inhabitants and strengthens the unmistakable creative atmosphere in which Brno excels. The international reputation of the city, its culture and the creative industries will be beneficial for the economy and the competitiveness of local entities.

Guarantor

Tereza Raabová

An expert on the creative industries, the economics of culture and cultural policy. She founded the educational and awareness-raising platform for managers Culture Matters, is an auditor for the field of culture in the National Network of Healthy Cities, author of methodology for the calculation of the economic impact of culture (certified by the Czech Ministry of Culture). She studied music management at the Janáček Academy of Musical Arts and international trade and tourism at the University of Economics in Prague.

Table 4 Cultural

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
A distinctive cultural and creative scene of international renown is actively working with Brno's cultural heritage and also experiments	Number of national and international prizes, internationally recognised titles (European Capital of Culture, UNESCO City of Music)	number	0	titles: European Capital of Culture, UNESCO City of Music, etc.	all Brno
	Overall satisfaction with cultural facilities, accessibility and quality of culture (viz. results of survey What Kind of Brno do you Want (2016))	% satisfaction	91%	93%	all Brno
	Number of positive media mentions	number of mentions	Not known	higher	all Brno
	Proportion of city budget spent on culture	% of city budget	9%	9%	all Brno
	Number or proportion of city-supported co-	number, %	to be added later	higher	all Brno

	productions and multi-genre projects involving more entities, fields and areas of life				
	Proportion of city-supported projects/works focused on original creations	%	to be added later	higher	all Brno
	Proportion of city-supported projects/works exported outside Brno	%	to be added later	higher	all Brno
Quality culture is required by and available to all Brno's inhabitants	Accessibility of the offer for various income, age, ethnic, etc. groups	Will be defined by experts	not known	higher accessibility in 2050 than in first year of survey	all Brno
	Personal importance of opportunities for cultural and social activities in Brno (Question: How important to you are opportunities for cultural and social activities in Brno?)	% very important + rather important	75%	85%	all Brno
	Frequency of visits to cultural events and facilities in Brno – proportion of inhabitants visiting cultural events and facilities at least once per month	%	3% (museums, exhibitions, other events) - 15% (libraries)	5 to 20%	all Brno
	Number of public spaces and structures/commercial spaces in the property of the city appropriate for and used for culture	number of spaces, number of structures/commercial spaces of the city, number of events	to be added later	higher	all Brno
Preserved and commemorated Brno cultural heritage (tangible and intangible)	number of historical monuments and industrial heritage sites in a good state	number	not known	higher	all Brno
	number of city-supported projects working with tangible and intangible cultural heritage	number	to be added later	higher	all Brno
Quality and functional education for culture and the creative sector, cooperation of educational entities with the world of work	The success level of graduates of cultural and creative fields in secondary schools, universities and lifelong learning programs (number of graduates working in the field / total number of graduates in these fields and courses)	%	not known	higher	all Brno
	Satisfaction of employers with the abilities and competence off graduates	system of surveys among employers	not known	higher	all Brno

Healthy living environment

Description of the value

The living environment in Brno in 2050 is healthy – we managed to ensure long-term sustainable quality of resources (soil, water, air, food) necessary for a healthy and quality life

of the inhabitants. The impact of the most important factors with negative implications on the environment and the health of the population has been gradually reduced. The city has adapted itself to climate change and has been applying the necessary measures to prevent it in the long run. Ecosystems within the city have been gradually restored and further developed within a sophisticated care system, biodiversity has been increased, and the city's natural components are adequately protected.

Benefit for the city

Healthy living environment significantly affects the health, physical and psychological well-being of people. The quality of the environment contributes to a good reputation and overall attractiveness of the city of Brno for the life of present and newly arriving inhabitants and visitors to the city.

Guarantor

Jan Holeček

The Head of the Strategic Planning Department of the City of Brno is a temporary guarantor.

Carbon footprint of Brno (amount of produced greenhouse gases from all activities)

Table 5 Healthy living environment

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Reduce the incidence of factors with negative impact on human health and environment	Immission load PM10 total (average)	(µg/m ³)	28.4 (2015)	below 10	Entire city
	Immission load NO2 total (average)	(µg/m ³)	30.8 (2015)	below 10	Entire city
	Water quality – river Svratka	quality	I.	I.	River Svratka
	Water quality – river Svitava	quality	II.	I.	River Svitava
	Contaminated brownfield production sites	ha	91.2	0	Brownfield sites
	Proportion of population exposed to noise > 55 dB	%	21.7	less than 10 %	Entire city
	Carbon footprint of Brno (amount of produced greenhouse gases from all activities)		Not known yet	almost CO2 neutral city	Entire city
Adapt the city to climate change and apply measures to prevent it	Proportion of green areas	%	4.3	increasing proportion	Namely the urban area
	Proportion of permeable and impermeable areas in the city	%	must be measured in the framework of ÚAP (2020)	increasing proportion of permeable surfaces to the detriment of impermeable surfaces	Entire city
	Ecological footprint of the city	index	can be measured in the framework of NSZM	constantly decreasing	Entire city
Strengthen the protection and restoration of ecosystems and increase biodiversity	Extent of protected greenery – proportion of the total area of the city of Brno	%	2.75	at least the same extent	Valuable areas of the entire city
	Existing parks (proportion of the city's built-up area)	%	1.67	increasing proportion	Parks
	Summary of park areas related to the present inhabitants of the city	sqm per inhabitant	2.66	increasing number	Parks

Nature in the city

Description of the value

In 2050, the nature in the city of Brno forms an interlinked and functional system that provides recreation, relax, but also biodiversity or food production. The city of Brno has stable and diverse ecosystems that are vital for the maintaining of a healthy environment. Brno maintains and gradually builds a system of areas from fully natural to cultivated, complementing the urban environment and infrastructure.

Benefit for the city

The nature within the city does not only fulfil aesthetic and recreational functions but can significantly affect the quality of life of the residents. Green areas and water surfaces positively affect the microclimate in their surroundings, equalize temperature, reduce pollution and green areas also function as natural air conditioning. Expected climate change will bring greater extremes in the future (heat waves, torrential rain and droughts), natural areas are a very effective tool to reduce these potential threats in the city's environment.

Guarantor

Vojtěch Lekeš

Vojtěch Lekeš is a Czech architect and urban planner with specialization in sustainable development. He graduated from the Department of Architecture at the Chalmers University in Gothenburg, Sweden, and after graduation he worked as an architect at one of the largest Swedish companies. He is currently running his own practice and works as a programme director of the research organisation NEXT Institute.

Table 6 Nature in the city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Create and protect an interlinked system of green and blue infrastructure in the city	proportion of green and water surfaces (% of infrastructure interlinked with the ÚSES system)	%	Probably needs to be recalculated according to GIS	Growing trend - increasing proportion of interlinked "green and blue infrastructure"	all green and water surfaces interlinked with the ÚSES system)
Revitalize existing greenery and link it to biocorridors	proportion of revitalized surface and linear greenery	%	Probably needs to be recalculated according to GIS	Growing trend - increasing proportion of revitalized greenery	parks, courtyards, alleys, rows of trees
Promote planting and establishing new greenery (including green roofs and facades), water surfaces and watercourses	proportion of greenery and water surfaces in the urban area	%	Probably needs to be recalculated according to GIS	Growing trend - increasing proportion of green and water surfaces	green roofs, green facades, pocket parks, lakelets (rainwater collection) water canals (rainwater), wetlands,

					ponds
Increase biodiversity in the city	Value of ecosystem services (benefits provided by nature to society)		Methodology of quantification is still missing, needs to be created		
	Extent of areas increasing biodiversity (wetlands, revitalized areas, etc.)	m2	Auxiliary indicator to create a system of quantification of ecosystem services.		
	Number of areas increasing biodiversity (wetlands, revitalized areas, etc.)	number	Auxiliary indicator to create a system of quantification of ecosystem services.		
Provide sufficiency of parks for recreation	Existing parks (proportion of the city's built-up area)	%	1.67		
	Summary of park areas related to the present inhabitants of the city	sqm per inhabitant	2.66		

Compact and balanced city

Description of the value

The value of a spatially and functionally balanced city is expressed in a continuous and spatially not dispersed development, where the centres of everyday activities of the population are as close as possible to the places of residence. The everyday life of a balanced city can take place on the scale of a city district, where various places of activity can be connected by walking or public transport. A compact and balanced city reduces the dependence on transport and is a prerequisite for increasing social contacts and security of its residents.

Benefit for the city

In a compact and balanced city one can expect reduction in the spatial demand on construction and a support for regeneration of inadequately used e.g. vacant lots and old industrial properties). The demand for the construction and maintenance of the linear technical and transport infrastructure will be reduced. Traffic burden will also be reduced. Residents, especially those less mobile, will gain better access to services. Newly revitalized areas and local town centres will bring improvement in terms of safety and social cohesion.

Guarantor

Michal Sedláček

Director of the Office of the Architect of the City of Brno. Michal Sedláček is a Czech architect and since 2016 the Chief Architect of the City of Brno. He studied architecture at the Brno University of Technology and at the Academy of Fine Arts in Prague. He moved to New York in 1990, then worked in Moscow in the mid-1990s, then returned to New York again; from there he moved to Los Angeles, California. There he worked in the studio of Frank Gehry until 2006. In 2007, he founded and then led the Los Angeles branch of the architectural firm Aedas.

Table 7 Compact and balanced city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Efficient use of the city's land, supporting continuous build-up and development of a balanced network of local centres	Proportion of underused sites and brownfields (transformation sites) in the developed area of the city	%	4	1	Brno
	Proportion of area of regenerated brownfields in the total current area of brownfields in Brno	%	0	90	Brno

	number of local centres	number	working definition of a local centre must be created on the basis of a range of functions and daily turnover of persons	a working definition of a local centre must be created on the basis of a range of functions and daily turnover of persons	Brno metropolitan area
City of short distances	average time of commute for work and to schools	min	about 20-25 min for Brno, 25-30 min for the Brno metropolitan area (an estimate based on 2011 census data, must be verified by a different type of geolocation data – such as mobile operators' data)	comparable or lower than the current value	Brno/Brno metropolitan area
	proportion of residents who have basic service functions within walking distance (500 m/10 mins)	%	must be determined on the basis of a spatial analysis, the range of basic functions must be defined	must be determined on the basis of a spatial analysis, the range of basic functions must be defined	Brno
	proportion of residents who have basic service functions within walking distance 10 minutes by public transport	%	must be determined on the basis of a spatial analysis, the range of basic functions must be defined	must be determined on the basis of a spatial analysis, the range of basic functions must be defined	Brno/Brno metropolitan area
Increase the options of the City of Brno to build flats and houses in its administrative boundaries at the expense of the intensity of construction in the suburbia	Year-on-year trend in the difference between the number of square metres of newly built housing space between Brno and the rest of the Brno metropolitan area	absolute value or index	cannot be determined, research must be conducted (Czech Statistical Office data on the construction of new flats can be used – for example, calculation of the average number of new flats per 1000 residents)	Increasing development intensity trend in Brno at the expense of its hinterland	Brno metropolitan area
	Uniform distribution of population within the built-up area (the inhabitants living in Brno are included in the calculation, i.e. those who are also present at night-time) – for example the concentration indicator H	%	80	60	Brno

Architectural face of the city

Description of the value

The architectural face of the city of Brno focuses mainly on the interconnection of historical buildings, Brno functionalism, industrial architecture and new construction. It is supported by a cultivated modern architecture that is consistent with worldwide trends. Emphasis is placed mainly on the height composition, due to the rugged relief of the Brno's landscape and its dominant features, and the increasing quality of public spaces, namely squares, streets and parks.

Benefit for the city

The city will become an attractive and friendly place for the life of its inhabitants and at the same time an attractive tourist destination. The height, structure and volume of new buildings respects the surrounding built-up areas, preserves the compositional axes and dominant features of the city. Attractive, high-quality and inspirational public areas inspire for cultural and social life in the city.

Guarantor

Michal Sedláček

Director of the Office of the Architect of the City of Brno. Michal Sedláček is a Czech architect and since 2016 the Chief Architect of the City of Brno. He studied architecture at the Brno University of Technology and at the Academy of Fine Arts in Prague. He moved to New York in 1990, then worked in Moscow in the mid-1990s, then returned to New York again; from there he moved to Los Angeles, California. There he worked in the studio of Frank Gehry until 2006. In 2007, he founded and then led the Los Angeles branch of the architectural firm Aedas.

Table 8 Architectural face of the city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Cultivated construction and promotion of modern architecture corresponding to worldwide trends	Number of nominated buildings in Brno in national competitions organized by professional organizations (Grand Prix of Architects - National Prize for Architecture, Czech Architecture Award)	number	about 5-10 (Czech Architecture Award)	10 or more	Brno
Attractive, high-quality and	Proportion of well-	%	0	100	Brno

inspirational public areas as an integral part of stabilized and development areas of the city	refurbished public areas in all renovated public areas since 2016 Share of satisfied citizens with quality of public spaces				
	Proportion of new high-quality public areas in all new public spaces since 2016 onwards	%	0	100	Brno
	Share of citizens satisfied with the quality of public spaces	%	77	95	Brno
City without visual smog	Proportion of retail units with good quality design in the total number of retail units	%	15 (estimate)	90	Brno
	Proportion of well done outdoor advertisements in the total number of advertisements (can be monitored by category – such as billboards, city light showcases, banners on city furniture, etc.)	%	15 (estimate)	90	Brno

City with affordable housing

Description of the value

In 2050, Brno is a city with price-affordable housing for the general public and a diversified range various sizes of housing, which can satisfy the needs of individuals and families with children and gives them a possibility of choice. The offer of affordable housing is evenly distributed throughout the city, which allows for shortening of the walking and commuting distance for the residents to reach work or services.

Benefit for the city

The supply will slightly exceed the demand, not as it is now. Development and reconstruction sites will be available for construction, and the price (purchase/rent) will be affordable to the general public. The housing offer will be evenly distributed throughout the city rather than centralized in one location. People's time of commute between home and work will be saved. People will have the option to choose housing exactly according to one's ideas based on a varied selection from a wide range of types, characters, sizes, locations and prices. This can satisfy housing requirements ranging from small apartments to family dwellings.

Guarantor

Petr Bořecký

Architect in the A53 studio. Deputy Chairman of the Brno City Council's planning commission.

Table 9 City with affordable housing

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Achieve variable housing offer affordable for all residents	Sociological survey – agreement on the statement "Brno has a good offer of housing (for all population groups).	coefficient	2.15	1	Brno
	Number of newly built flats per year	number	1192	5,000	Brno
Promote the range of price-affordable housing	Price for 1 square meter of an average two-bedroom flat (related to the average wage in Brno)	coefficient	0.86	1	
	Area of prepared development and reconstruction sites for housing	ha	will be added later		Brno
Improve time accessibility of housing	Affordable housing units (municipal, start-up, social flats)	number	will be added later		
	Number of city districts, which have prepared development and reconstruction sites for housing on	number	will be added later	29	Brno

	their territories,				
Broaden the range of adequate capacity housing	Proportion of flats accessible within minutes' walking distance from a public transport stop	coefficient in %	will be added later		
	Number of flats on offer (one to four bedrooms)	number	will be added later		Brno

Prosperous city

Description of the value

In a prosperous city live well-prosperous and satisfied residents, the local job offer is sufficiently varied and wide and the conditions and services for entrepreneurship are of good quality and sufficient. The demand for jobs is in balance with the offer. Schools are preparing graduates for the labour market with their perspective disciplines. Jobs can be commuted to around the city in various ways without difficulty. The city is interested in its employers and supports their visions. Residents have the desire and opportunity to spend their income in the city.

Benefit for the city

Brno in 2050 is attractive for business and has an interesting range of job opportunities for all job seekers according to their possibilities. Satisfied residents can, thanks to their income, make use of all the city's offers (housing, education, health, services, culture, sports ...).

Guarantor

Monika Höklová

Lecturer, former active populariser of natural science. Now lecturer of communication and mediator of disputes. She graduated in Czech and German studies in Brno with scholarships in Germany and Austria. Started as an employee, then self-employed and since 2004 has been an employer - she is the CEO of a small company named EC - Employment Consulting, which deals in consultancy, research and education in the field of human resources and labour market and in recent years in social innovations - new and better solutions against the available alternatives, which meet social needs and create new cooperations. She has lived all her life with her family in Brno.

Table 10 Prosperous city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Encourage an increase in the living standard of the city's population (from the point of view of the economic dimension)	Average monthly wage in Brno compared to the average monthly wage in the Czech Republic	%	103%	125%	
	GDP per city resident (compared to the EU average)	%	133%	150%	
	Proportion of persons	%	16.9	5	

	under threat of income poverty (thus far surveyed only in the South Moravian Region)				
Promote attractive job opportunities - a broad range of qualified job openings corresponding to the economic structure of the population	unemployment rate (MPSV)	%	6.1	4	Promote attractive job opportunities - a broad range of qualified job openings corresponding to the economic structure of the population
	employment rate (MPSV)	%	44.5		
Support solutions against long-term unemployment	Proportion of long-term unemployed in the total number of job seekers	%	8,210 persons; 48.2 %	25%	
Encourage the interlinking of schools with business sphere and companies (student internships during their studies, support for employment of graduates)	unemployment rate among school graduates	%	4.57	2.5	
Strengthen the good-quality business environment and the support for start-ups and small and medium-size enterprises	Proportion of employees in SMEs in total number of employees	%			
Prepare the city for new economic models and future trends (shared economy, robotics, ...)	Openness of the city towards new, gradually emerging innovations, methods of work, etc.	text (impossible to quantify)			

Central European Research, Development and Innovation centre

Description of the value

Brno, with its universities, scientific and research capacities and a large number of students, has gradually developed into a real knowledge economy with a significant position within the broader Central European region. Thanks to this unique environment, companies feel that Brno is the right place for their innovative products and services. Brno has become a city where innovative businesses from all sectors operate, and their activities then further support the development of young creative talents.

Benefit for the city

Brno with its lively and creative atmosphere directly supports the development of talent. Brno will create different tools, programmes and spaces to enable city residents to test and develop their innovative ideas. These ideas can then be transformed into small and medium-sized enterprises directly linked to the corresponding markets. With the growth of the Brno's reputation as an innovative centre, it will become more attractive for foreign creative people, who will come to Brno. This will further enhance awareness about the city.

Guarantor

Markus Dettenhofer

Executive manager of the CEITEC Central European Institute of Technology Dr. Dettenhofer is currently running a research centre in the Czech Republic that focuses on life and material science. Experienced project leader in the biotechnology environment. He obtained BS from the University of California at Berkeley and PhD in Molecular Virology from Johns Hopkins University. He led post-doctoral research in Professor Philip Leder's laboratory at Harvard Medical School and was a Harvard geneticist instructor. His specializations include project management, biomedical research, scientific writing and editing, and leadership of people.

Table 11 Central European Research, Development and Innovation centre

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Increase the re-usability applicability of Brno's research	Number of licences sold for the use of a specific research outcome	Number	Will be added later, then it will be possible to determine the goal until 2016		
Enhance the maturity of the research support environment in Brno	The amount of R&D&I expenditure made by innovative private companies	CZK	16,276 mil.	30,000 mil.	
Enhance the attractiveness of the research environment in Brno	number of staff in the field of R&D&I	Number	18,537		
	Number of PhD students	Number	Will be added later, then it will be possible to determine the goal until 2016		
	Percentage of innovative	%	Will be added later, then it		

	non-profit organizations building so-called Science Commons in Brno from all non-profit organizations in Brno		will be possible to determine the goal until 2016		
Enhance international attractiveness of the research environment in Brno	Number and % of foreign PhD students in Brno	Number / %	Will be added later, then it will be possible to determine the goal until 2016		
	Number and % of foreign staff with PhD title in Brno	Number / %	Will be added later, then it will be possible to determine the goal until 2016		
	Number and % of domestic staff, who returned to Brno after getting experience abroad for 5 or more years	Number / %	Will be added later, then it will be possible to determine the goal until 2016		
Encourage interconnection and permeability of the research environment in Brno	Number of science and research facilities dealing with medium Technology Readiness Level (TRL) in Brno.	Number	0	5	
	Number of multi-sectoral grants and projects between public, non-profit and private sectors	Number	Will be added later, then it will be possible to determine the goal until 2016		
	Number of non-scientific innovators	Number	Will be added later, then it will be possible to determine the goal until 2016		
	Number of publications by Brno-based researchers in the so-called Tier 1 on the server Web of Science	Number	Will be added later, then it will be possible to determine the goal until 2016		

Educated university city

Description of the value

In 2050, Brno is a university city, to which people from all over the Czech Republic come to study. The city also wisely exploits the potential of the academic community, getting the academics involved in the civic life (popularization, public debates) and expert decision-making on strategic issues of the city development. The city is aware of the economic and social importance of education and supports the learning of the population at all ages. The possibility of quality education at all levels and for all age categories is a matter of course. Brno's schools are open to new methods and practices and do not exclude anybody from education.

Benefit for the city

The importance of education and learning for the society is still growing; the education of the population and its scientific level will be increasingly decisive for the future of individual cities and countries. Easy accessibility and high quality education will positively influence the economic and social development of the city and its inhabitants. Thanks to arriving young people, Brno and its residents still have sufficient impulses and inspiration, the urban community is "lively". The open academic sphere will positively influence public debate and city development in a number of areas.

Guarantor

Ondřej Přibyla

Lecturer, former active populariser of natural science. Now lecturer of communication and mediator of disputes.

Table 12 Educated university city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Encourage top quality and accessibility of education for everyone	Extent of use of the capacity of pre-schools and primary schools (number of children / capacity)	%	pre-schools 100 % (11,537 / 11,537), primary schools 98.7 % (27,102 / 27,451)	90%	
	Results of PISA (an international survey of the literacy level of 15-year-old pupils, OECD)				
	Number of university students	number	68,418	90,000	
	Ranking of universities	order	600-801 (2 universities, others over 800)	300-500 (at least 2 universities within the first 500, others up to 800)	

	Satisfaction with the range of educational opportunities provided	% (sum of responses very satisfied and rather satisfied) / or a summary index	73.8 % (33.2 %, 40.6 %) / index 1.65	index 1	
Enhance international attractiveness of Brno's universities	Number of accredited study programmes taught in foreign languages	number			
	Proportion of foreign students	%	20 % (13,560)		
	Proportion of foreign academic staff	%			
Strengthen the openness of the academic sphere to the public, direct involvement of academics and students in city activities (universities as open education centres)	Proportion of universities and universities that regularly carry out activities for the general public and are involved in the activities of the city	%		100%	
Ensure a broad range of accessible and inclusive formal education (pre-schools, primary schools, high schools)	Proportion of alternative and innovative pre-schools, primary schools and high schools	%			
	Proportion of foreign language pre-schools, primary schools and high schools	Number	4	21	
	Number of segregated schools	Number	6	0	
	Proportion of children attending informal (interest) education	%			
Encourage life-long learning	Satisfaction with sufficiency of information about the possibilities of life-long learning	% (sum of responses very satisfied and rather satisfied) / or a summary index	50.2 % (17.2 %, 33.0 %) / index 1.91	75% / index 1	
	Proportion of adults attending life-long learning programmes	%			

RESOURCES

Globally accessible city

Description of the value

A globally accessible city is well connected with the surrounding world via high-quality, high-capacity and reliable transport and communication infrastructure. In 2050, Brno is connected to hierarchically superior transport and communication routes (such as air routes, motorways, high-speed lines, global data networks, etc.) and thanks to that, it is well connected with the metropolises located in (Central) European and global space (such as Prague, Vienna, Bratislava, Munich, Berlin, etc.)

Benefit for the city

Good accessibility of the city and its metropolitan region is important for an efficient and reliable functioning of all components of its life, especially for the metropolitan economy, scientific structures, and for all other socio-economic activities, as it allows maintaining and developing the necessary contacts. Its expression is the easy reach of the city and its surroundings for all people arriving here or departing from here (residents, commuters, investors, entrepreneurs, tourists, scientists and others).

Guarantor

Daniel Seidenglanz

Works as an assistant professor at the Geographical Institute of the Faculty of Science, Masaryk University in Brno. In his pedagogical and research activities, he deals mainly with the themes of geography of transport, focusing on the topic of daily mobility and its importance in the time-space routines of inhabitants, as well as on railway, road and air transport issues.

Table 13 Globally accessible city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Ensure high-quality, high-capacity and reliable transport and communication links between Brno and (Central) European and world metropolises, both in passenger and freight transport, as well as in the field of information streams	Air transport - number of destinations accessible from Brno by scheduled direct flights in a normal week, of which hub airports of network carriers	number, destinations in total (of which hub airports)	3(1)	20(6)	air transport increases the accessibility of Brno and its whole metropolitan area
	Road transport - time accessibility to neighbouring Central European centres	minutes	Prague (120), Vienna (100), Bratislava (80), Budapest	Prague (120), Vienna (80), Bratislava	road transport on hierarchically superior roads increases the

	(Prague, Vienna, Bratislava, Budapest, Warsaw, Berlin) by car on newly opened motorways and other hierarchically superior roads		(190), Warsaw (400), Berlin (360), Munich (360)	(80), Budapest (180), Warsaw (330), Berlin(330), Munich (330)	accessibility of Brno and its whole metropolitan area
	Railway transport - time accessibility to neighbouring Central European centres (Prague, Vienna, Bratislava, Budapest, Warsaw, Berlin and Munich) by train on newly opened corridor or high-speed lines	minutes	Prague (150), Vienna (90), Bratislava (90), Budapest (250), Warsaw (420), Berlin(440), Munich (400)	Prague (60), Vienna (45), Bratislava (45), Budapest (120), Warsaw (150), Berlin(180), Munich (150)	railway transport on high-speed lines increases the accessibility of Brno and its whole metropolitan area
	Communication and data infrastructures - data capacity of networks connecting Brno to international and global networks	byte			communication and data infrastructure increases the accessibility of Brno and its whole metropolitan area
	Openness of the city to new, gradually emerging innovations in transport and communication technologies	text (impossible to quantify)	as needed, discussions with investors, negotiations with responsible national and European stakeholders, preliminary agreements	as needed, discussions with investors, negotiations with responsible national and European stakeholders , preliminary agreements	possible new transport and communication technologies creates the accessibility of Brno and its whole metropolitan area
Ensure high-quality, high-capacity and reliable operation of transport terminals that allow the entry of global passenger and freight traffic and information flows into the area of the city and the metropolitan region of Brno.	An airport well connected to subsequent systems of urban and suburban passenger and cargo transport	text	not yet	yes	surroundings of the airport Brno-Tuřany, city of Brno and its whole metropolitan area
	Functioning modern railway junction well connected to the internal structure of the city and related urban and suburban passenger and freight transport systems	text	not yet	yes	surroundings of the main railway station and also other rail terminals, city of Brno and its whole metropolitan area
	System of P&R catchment parking lots allowing for a smooth transition from long-distance passenger car traffic to the city transport system (parking capacity); interconnection of terminals for road freight transport with terminals of other modes of transport (intermodality)	text, number	not yet functioning as a system (only one P&R parking lot is in operation, with a capacity of 177 places)	yes, 20 000 parking places	surroundings of the P&R catchment parking lots and also freight terminals, city of Brno and its whole metropolitan area

City with efficient and sustainable mobility

Description of the value

High quality, reliable and environmentally friendly public transport is the main system chosen by residents of the city and its surroundings for their travels. However, they can easily and quickly get to their destinations choosing whichever means of transport. An efficient, open and permeable mobility system offers the inhabitants solutions that meet their requirements. Thanks to integrated mobility planning and the use of innovative solutions, Brno is a city of short distances, where neither age nor a handicap are a reason for movement restraints. The principles of sustainable and efficient mobility are also applied to the transport of goods. Thanks to these changes, the city of Brno in 2050 is a place with a healthy and pleasant environment for life.

Benefit for the city

Support and preference to sustainable mobility (public, pedestrian and bicycle transport) brings the city, above all, an improvement in the environment and pleasant and quality public spaces, as well as a better quality of life to its residents. Effective mobility offers the city residents a comprehensive system with an easy choice of a particular transport mode (public transport, car, bicycle or walking) that best suits their needs and enables them to reach their destinations easily and quickly, without unnecessary time or economic losses. Energy is also efficiently used in transport, which not only brings savings, but also reduces the negative effects of transport on the environment of the city and its residents.

Guarantor

Iva Machalová

Head of the Urban Mobility Section at the Department of Transport of the Brno City Municipality. She studied Geography at the Faculty of Science, Masaryk University. She has been working at the Brno City Municipality since 2004 (in the past as a manager of several EU projects), focusing primarily on transport planning and the preparation of a Sustainable Urban Mobility Plan for Brno.

Table 14 City with efficient and sustainable mobility

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECT ION
Increase attractiveness and use of sustainable modes of transport (public, pedestrian and bicycle transport) reducing thus the negative impact of transport on the environment	Modal split	ratio of the number of journeys / transport performance on overall volume (%)	53% (public mass transport); 6 % (pedestrian traffic), 2 % (bicycle transport), 39 % (individual passenger car traffic) (note:	56% (public mass transport); 12 % (pedestrian traffic), 12 % (bicycle transport), 20 % (individual passenger car traffic)	

			data of 2014)		
	Satisfaction of residents with infrastructure for pedestrian, cycling and public transport	%	81% residents satisfied with conditions for pedestrian movement, 33% residents satisfied with conditions cycling, percentage of residents satisfied with public transport: 82%		
	Degree of automobilisation	number of passenger cars per 1000 residents	484	350	
Improve quality of the city environment	Quality of the environment (dust particles, NOx, benzo(a)pyrene)				
	Proportion of population exposed to noise >55 dB	%	21.7	0	
	Proportion of ecological vehicles/total number of public transport vehicles	%	33% (100/302)	100%	
Create an efficient and permeable transport system that makes it easy to choose the type of transport that best suits the needs of users - the city's inhabitants	Fluency of movement (time and economic losses caused by congestion)	%	27%		
	Average speed of public transport	km/hour	will be added later		
	Average distance of public transport stops from the place of residence	m	will be added later		
	Pedestrian zones and common areas	m2	will be added later		
	Barrier-free solutions in public transport (proportion of barrier-free vehicles / proportion of barrier-free stops)	%	vehicles 66% (511/778)	95%	
Approach mobility in the city as a service	Extent of use of shared solutions (bikesharing, carsharing) and services	%	bikesharing 0.4 %, carsharing 0.6 %		
	Number of customers of the future company providing various types of transport – mobility as a service)	number	0		
	Number of businesses / employees involved in the company mobility planning	2	70		
	Number of businesses involved in the city logistics system	number	0		
Support and implement innovations in transport	Use of innovative solutions in transport	impossible to quantify, text			
	Metadata linking of transport infrastructure with city planning				

City with effective water management

Description of the value

In 2050, Brno conducts an effective water management. It makes sophisticated use of water resources, with minimization of losses in the obtaining, treatment, distribution and consumption of water. It ensures a high-quality sewage treatment process and maximum possible use of rainwater. The flood protection of the city of Brno is completely finished, with the use of an adequate combination of classical measures and measures friendly to the nature.

Benefit for the city

The main benefit of efficient water management is the long-term maintenance and development of today's obvious comfort in the case of the use of high-quality drinking water, increasing the use of rainwater, sufficient flood protection and high-quality wastewater treatment.

Guarantor

Miloslav Šlezinger

Professor of Water Management, Landscape Engineering and Environment at the Mendel University in Brno and the Brno University of Technology.

Table 15 City with effective water management

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Ensure high-quality drinking water resources with sufficient capacity sources and drinkable water distribution mains	Water consumption per equivalent person per day	l/person/day	109.7	It is not desirable to increase consumption, rather to support the trend of its reduction.	The agglomeration of greater Brno - i.e. the area supplied with drinking water
	Number of capacity sources of quality drinkable water	number	2	3	
	Average age of water mains	number of years	will be added later		
	Satisfaction with drinkable water quality	coefficient	1.99 (2017)	1.2	entire city
Increase flood protection of the Svitava and Svratka river basins including the use of nature-friendly flood protection measures	Number of unprotected inhabitants / properties during a one-hundred-year flood in Brno	number	endangered about 30000 persons and about 4500 properties	0	Svitava and Svratka river basins
Effective sewage management; minimize the impact of "Brno" on water quality in watercourses	Proportion of residents connected to sewerage	%	will be added later		city of Brno
	Average age of sewerage grid	number of years	will be added later		
	WWTP capacity	equivalent persons	515000	600000	
	Water quality parameters in the water formation DYJ_0670 Svratka from	ecological potential	medium ecological potential	good and better ecological	

	Svitava to Litava			potential	
Effective rainwater management	The amount of rainwater that does not flow into the sewerage	%	will be added later		city of Brno
	Surface runoff		will be added later		
	Overall volume of water retention in absorption facilities (absorption of rainwater)	m3	2908		

Energy-saving, independent and resilient city

Description of the value

In 2050, Brno achieved energy efficiency, independence and resilience both by dramatically increasing energy efficiency through the use of innovations and new technologies, and by reducing energy consumption. Brno's energy management system is based on intensive use of local renewable sources and waste heat (for electricity generation, heating and cooling) and, at the same time, on integration into Europe-wide energy planning and modelling. This energy strategy of the Brno metropolitan area has been taken into account in unified long-term energy management planning and diversification of energy sources, and is reflected in the related values (such as Compact and balanced city, City with affordable housing, Architectural face of the city, Efficient and sustainable mobility, Clean city, Central European RDI centre), which depend on energy sources and supplies, hence affecting directly the extent of the fulfilment of this value.

Benefit for the city

Energy security based on the improving quality of life and health in Brno and the Brno metropolitan area, with regard to the social contexts of all residents. There will be a reduction in the emission burden and pollutants from unclean energy sources. The use of island-type systems of power supply will lead to increased energy resilience, self-sufficiency, hence independence. Research, technological innovation and implementation of solutions in the field of clean renewable energy will move the strategy of the entire city and the region in a direction that is highlighted and prioritized at the Europe-wide level. Research in the field of clean renewable energy sources will be useful not only for the city of Brno, but it will also be a major local financial resource in the form of benefits from innovation platforms or through European innovation and research grants, or yields from patents.

Guarantor

Nora Hampf

She studied and worked mainly in the academic sector (also in private) in the USA, Paris, Vienna, and Leiden, and she studied international relations at Harvard University. She regularly brought her students from Harvard to Brno and the Czech Republic, where she organized a summer school for them. In her current research work, she focuses on the policy of sustainable development and renewable energy sources, and the evaluation of human ecological footprint.

Her desire is for Brno to become a laboratory of thoughts, where local human capital, including students and experts, will be used to the maximum. The latest (evidence-based) research in the field of sustainable ecological urban planning can get Brno involved in global research, connected with other cities, participating in European competitions, and possibly influence wider developments in this area.

Michal Veselý, a professional in the field of management, development and marketing, also participated in the processing of this value. His professional career is related with the Nadace Partnerství (Partnership Foundation) and its European mother network Environmental Partnership Association. His experiences also come from the commercial sector and university environment. Recently he has been focusing on the development of international relations in the area of SDGs. He studied Economics and Environmental Studies at Masaryk University. He obtained the AXELOS Management of Portfolios (MoP) certificate. He graduated from the International Visitors Leadership Program in the USA, focusing on social business. He is a fan of Brno and a great optimist in terms of valorising its innovation potential for improving the quality of life not only of its inhabitants.

Table 16 Energy-saving, independent and resilient city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Ensure sufficient energy generation capacity from clean renewable energy sources, thereby reducing emissions and pollutants that negatively affect human health and the environment	Eco-energy policy and specific measures reflected (YES-NO) in the planning of (1) mass transport, (2) individual passenger transport, (3) construction and infrastructure, (4) recycling and incineration, (5) optimization of the use of electricity (loss reduction, accumulation and return to the grid, decentralized energy islands)	YES / NO	Answer to points 1-5 is negative	Answer to points 1-5 is positive	At the levels of the city and the region. It will influence energy solutions when planning new construction and revitalization of buildings, mass and individual passenger transport solutions, waste treatment and its use, possible retrofitting of energy-inefficient buildings. Close cooperation between the private sector, research institutes, and individual or team initiatives in the field of technological innovation is foreseen. A department dealing exclusively with energy should be provided at city level. When implementing projects within the region, existing capacities and infrastructures (such as the experience and activities of the South Moravian Innovation Centre and others) should be made use of.
Create energy consumption based on clean RES (renewable energy sources)	<i>Percentage of mass transport vehicles using clean RES</i>	%		growing trend	
	<i>Number of individual passenger transport vehicles using clean RES (including electric cars, bicycles, used for everyday transport)</i>	<i>number per inhabitant</i>			
	<i>Proportion of energy from fossil sources (commercial properties __%, residential properties __%, academic and research facilities __%, buildings owned by the city __%)</i>	%		decreasing proportion in all categories of buildings	
Reduce overall energy consumption while gradually increasing energy efficiency	<i>Per capita energy consumption in Brno (or carbon footprint per capita corresponding to the current European average)</i>	<i>kg of oil equivalent / person</i>	4.6	2	
	<i>The proportion of legal entities maximizing energy efficiency and saving in their activities (entities respecting the sustainability and ecological footprint principles (Designers</i>	%	10	80	<i>There is a direct relation here to the values Compact city, Polycentric and multifunctional city, Architectural face:</i>

	<i>Accord equiv.) in Brno of the total number of legal entities operating in the area of the city of Brno.</i>				<i>for example, an energy efficiency certificate (LEED equiv.), Efficient and sustainable mobility: transport using RES; Clean city: waste treatment for energy generation use.</i>
Increase the proportion of local renewable energy sources in the city's energy supply based on technological innovations	<i>Proportion of local renewable sources in energy supply to the city; proportion of clean renewable sources, such as the number of solar panel roofs, electric cars, electric vehicles, number of buildings that accumulate energy and return it to the grid</i>	%	5	50% - 70% of final energy consumption of the city and the region	
	<i>Proportion of energy used for immediate consumption at the site of its production (island system) on the total energy demand in Brno</i>	%	1	20	
Expand and maximize the impact of innovations in the field of clean renewable sources including decarbonisation methods (CCS)	Percentage of application of the outcomes from research projects of local science centres supporting research in the field of clean RES (such as miniwind turbines, possible use on roofs; more efficient solar energy, e.g. using vertical mirror towers, hydrogen fuel cells, artificial photosynthesis, water turbines, LED lighting, deep geothermics) in the framework of the city of Brno (both private and public applications) on the overall number of research projects of local science centres	%		growing trend / 40	
Integrate Brno in European RES initiatives and participate in the implementation of an all-European grid that enables the interconnection, export and import of clean renewable energy sources, reducing thus the losses associated with the variability of these resources	Extent of integration into European projects and co-operation in the field of clean RES (such as research and implementation of an all-European grid enabling interconnection, export and import of RES) providing solutions to the losses associated with the variability of these sources expressed by a financial indicator	% of the city budget;		growing trend	<i>Within Europe, cooperation is understood with European associations, research centres, and participation in European projects, grants, conferences and workshops.</i>
	Extent of integration into European projects and co-operation in the field of clean RES (such as research and implementation of an all-European grid enabling interconnection, export and import of RES) providing solutions to the losses associated with the variability of these sources expressed by a financial indicator	volume of local investments in CZK; volume of foreign support in EUR		growing trend	<i>Local IT research capacities can be involved in securing and testing during the transition to RES and in future interconnection with the all-European grid.</i>

Self-sufficient and circular city

Description of the value

Brno is aware of the great material and energy demands of the operation and development of the city. It supports the use and circulation of materials and nutrients in the city for as long as possible in the highest quality and their return to circulation. It creates closed cycles that eliminate waste streams and create, for example, new jobs in sustainable development areas. Closed cycles of materials and nutrients help the city become self-sufficient and less dependent on external changes. A sufficient supply of quality food from local sources is an important aspect for maintaining a balance between social, environmental and economic factors. Quality food is essential for the health of the population, development and support of local agriculture, local communities, a healthy economy, and a reduction in the environmental footprint of food imports. Brno is a rapidly growing metropolis and the provision of sufficient quality local food thus creates the potential for a healthy development of the whole city.

Benefit for the city

The benefit for Brno in terms of food self-sufficiency will be a healthier and food-provided community, a vital and more resilient local economy, reduction in energy demand, emissions and waste. Furthermore, a healthy local ecosystem, greening and restoring unused local areas, creating new jobs and supporting local communities. Food self-sufficiency will also increase the resilience of the local ecosystem against climate change. Maximum possible use of materials within the city brings self-sufficiency to the city, development of local economy, creation of new jobs and, in particular, the creation of a healthy space to which the residents of the city are actively involved. The city, businesses and individuals perceive waste as resources, eliminating its creation and reducing the costs that can be spent on developing the city according to the citizens' preferences.

Guarantor

Soňa Jonášová

Director of the Institute of Circular Economics (INCIEN). She is a graduate of Mendel University's Agricultural Engineering study programme. Since 2015, she is the director of INCIEN, actively involved in the transition from linear to circular system of economy in the Czech Republic. INCIEN is responsible for development activities and cooperation with key stakeholders in the Czech Republic and abroad. Her main interests are the closure of biological cycles and technical cycles within the framework of sustainable development of society, which are areas that are intervening in agriculture, development of new economies, waste management, eco-innovations, support of local and community activities with the goal of creating a healthy society and ecosystems.

Table 17 Self-sufficient and circular city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Utilization of the maximum potential of materials available at the city level.	Degree of material flow recycling	%	20 – 30 %	60 – 80 %	Brno metropolitan area
Utilization of waste flows in the manufacturing enterprises for inputs to following enterprises.	Maximum utilization of energy and material flows between enterprises and manufacturing entities.	%	inexistent	20% of waste flows generated by manufacturing enterprises become resources for following enterprises. Waste is used at the city level.	Brno metropolitan area
Encourage recycling and re-use of waste water and products of its treatment	Rate of recycling and re-use of waste water	%		80 %	Brno metropolitan area
	Recycling of nutrients from waste water (communal and industrial)	%	0 %	90 %	Brno metropolitan area
Prevent the generation of waste (industrial and municipal) and promote its reuse	The amount of waste generated within the city of Brno	%	current status of waste production – unknown to us	lower by 80 %	City of Brno
	Reuse rate of waste in the city area (without the necessity of its recycling)	%	? current data are unavailable	20 %	City of Brno
Use bio-waste as resources for urban agriculture and other activities incl. biogas production (to introduce sorting, recycling and re-use of biodegradable waste (BDW))	Degree of use of bio-waste originating in the city.	%	Home composting is developing, so far an incomplete system.	100 % biologically degradable waste utilized within the city.	Brno metropolitan area
	Quantity of recycled BDW.	%		100 %	City of Brno
	Capacity of the city for the processing of BDW produced	%		100 %	City of Brno and hinterland
Increase food self-sufficiency (increasing the resilience against crises, climate change impact etc.)	Food self-sufficiency	%	Not available	60 - 80 %	Brno metropolitan area
	Import of fruit / vegetables and other foods that can be grown in local conditions.	% of overall consumption	Not available	50% of fruit / vegetables and other foods regional (up to 100 km or Czech Republic)	Brno metropolitan area including adjacent areas with agricultural production for the city of Brno.
Increase the amount of land used for food production / agricultural production	Proportion of land actively used for agricultural production	%	Not available		Brno metropolitan area
	Occupation of agricultural land fund			Reduction in occupation of agricultural land fund	Brno metropolitan area
Long-term education of the population in the area of sustainable development, resource and food self-sufficiency.	Degree of awareness and understanding inside the public about the significance of resource and food self-sufficiency	%	Not available	70 % inhabitants understand the significance of resource and food self-sufficiency.	Brno metropolitan area
	Number of community	Number	about 5	20	Brno

	gardens				metropolitan area
Implement and utilize a green procurement system within the city, its organisations and city companies	A functioning system of green procurement with regard not to the price, but to the use of secondary raw materials (recycled materials) with regard to the place of production - the preference of local origin.	Yes / no	Not in place (NO)	Standard public procurement practice (YES)	Brno metropolitan area + Brno countryside area

Clean city

Description of the value

In 2050, the cleanliness of the city is a natural part of the quality of life in settlements and, to a great extent, a business card of the society's cultivation. The city's environment is clean to the maximum, while burdening its residents with the associated processes only to the necessary minimum. The environmental impact of these processes is minimal; reduction of noise, dust and other pollution associated with city cleaning took place. The city's waste collection system that will be maximally comfortable and motivating for the user, cost-effective and respecting the principles of the circular economy, while emphasis will be put on the use of secondary raw materials from the region again in the region.

Benefit for the city

Benefits will feature clean and tidy public space (cleaned silently, by means of electric cars powered by electricity generated from waste), waste collected with maximum efficiency (dynamic waste management allowing to influence the cost of waste management of individual primary agents in relation to their actual cost) and again silently, and with regional electricity collected waste, which will be materially recycled to the maximum possible extent and transformed directly into a product that will be reused in the region again. Materially unusable waste will serve as a source of energy for cleaning and tidying public space in a quasi-island material-energy system.

Guarantor

Tomáš Hlavenka

He graduated in Technology Management and Biotechnology and Waste Management at Mendel University. He worked as a director of the company STKO in Mikulov. At present he is the head of the Collection division at SAKO Brno. In his work he has always devoted himself to new directions and overlaps of waste management and its impact on the quality of life of residents.

Table 18 Clean city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Increase the cleanliness of streets and public spaces	Regular sociological survey – agreement on the statement "Brno is a clean city"	coefficient	2.19 (2017)	1	streets and public spaces
Reduce municipal waste production, eliminate landfilling and its consequences	Overall quantity of the waste produced	tons	98,802	21,363	city of Brno
	Proportion of landfilled waste on overall waste quantity	%	1.6	0.5	city of Brno
Increase the proportion of sorted waste and its recycling rate	Separated waste and its proportion of total waste production in Brno	%	19.8	84.8	city of Brno
	Proportion of recycled waste from the total separated waste	%	75	95	city of Brno
Support an increase in the efficiency of energy recovery of waste for the production of heat	Proportion of energy recovered waste in the total amount of waste from the city of Brno	%	76.8	14.8	city of Brno
	Energy generated from waste from the city of Brno	GJ	1 000 000	42 523	city of Brno
	Energy generated from waste – total	GJ	1 000 000	1 330 000	Czech Republic

Safe city

Description of the value

In 2050, the city of Brno has the status of a safe whole with clear rules to ensure elementary safety for citizens and visitors in public, their homes, during their leisure time and social activities. Clear lines function between prevention, awareness and citizens' participation in ensuring safety in the city in all its aspects. The city's inhabitants have understanding and respect for the competencies of professional security forces of the state and the city. The repressive component of security makes focus on law enforcement.

Benefit for the city

The city, aware of its characteristics, will jointly create environment for a feeling of security (in all its aspects), which is a significant measure in today's security developments in the world. The city with a confirmed low level of threat to the elementary values and needs of citizens and institutions is perceived in a broader context as a "good address", creating thus secondary conditions for the development of ecological activities and a functional social unit.

Guarantor

Martin Menšík

Professionally deals with security specializing in the fight against terrorism and extremism. Now in the commercial sector he conducts lecturing activities on the theme of crisis management and emergency situations in schools, offices and other institutions. He is a Brno native and patriot.

Table 19 Safe city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Reduce crime and minimize the number of incidents that threaten safety and health	Number of offences and minor offences	number	11 285 offences 153 419 minor offences	Decreasing number	City centre, excluded localities, adjacent cadastres
	Number of incidents of all kinds (fire, accidents etc.)	number	Not available	Decreasing number	
	Agreement on the statement „Brno is a safe city“	coefficient	1.9 (2017)	1	entire city
	Daytime feeling of safety	ratio of satisfied citizens (very and rather)	77% (2017)	90%	entire city
	Night-time feeling of safety	ratio of satisfied citizens (very and	48% (2017)	70%	entire city

		rather)			
Ensure readiness of the city for crisis situations in case of natural and other events (prevention and readiness – for example flood barriers, training for crisis situations)	The speed of response of the components of the integrated rescue system	conducted activities - number	Will be surveyed		Entire city, institutions
	informed and responsible public (degree of awareness)		Not available		
Reduce youth crime and promote the prevention of bullying through qualified work with children and youth	Children and youth crime		Will be surveyed	Decreasing trend	entire city
	Bullying of children		Will be surveyed	Decreasing trend	entire city
Prevent the emergence of "NO-GO" zones in the city	number of risk localities	Number		Disappearing or non-emerging risk localities	City centre, excluded localities, adjacent cadastres

ADMINISTRATION

Shared vision and good name of the city

Description of the value

Within the city of Brno and its hinterland there is a long-term consensus on the priorities of the whole area. Planning and management of the strategic and territorial development of the city is understandable, based on clearly defined needs of the city and its inhabitants, while at the same time allowing a flexible response to current development. The city has a long-term development strategy, which it fulfils by means of partial action plans and a metropolitan plan set up according to the load on the territory. A functioning interconnection of strategic and spatial planning makes it possible to systematically develop clearly defined strategic areas of the city. Brno is perceived in the Czech Republic and abroad as a great place to build a career, to live and to stay. A city that attracts business, investment and creativity. A city perceived as the centre of a knowledge region, where gifted people, creativity, science and research prosper.

Benefit for the city

Clear strategic and spatial planning adds confidence to all partners and allows for the creation of a compact, balanced city. The clear strategy of the city and its high reputation leads to an increase in the influx of investors, artists and tourists within the city and region. The city attracts business, investment and creativity, bringing the city an increased interest in housing and accommodation, study and careers, and leads to further development of services and infrastructure. Thanks to flexible planning, Brno can flexibly respond to the growing attractiveness of the city (prevents price fluctuations such as in housing, enables to maintain affordable prices of services while being resistant to climate change, energy extremes, etc.)

Guarantor

Petr Kunc

Petr Kunc is an authorized engineer in civil engineering. Owner of two design studios. At present, he is a vice-mayor in Brno-Židenice, with tasks in the sphere of spatial planning, transport and environment. Strategic brand management is guaranteed by Jana Janulíková, who profiles herself as a specialist in marketing of culture, art, creative industries and destination. She deals mainly with management, marketing communications, project management and human resources management. She is an external marketing teacher at the HF JAMU in Brno. For nearly ten years she worked at the National Theatre Brno. She is one of the founders of the Travelling Opera Association. Since April 2015, she has been director of the TIC Brno.

Table 20 Shared vision and good name of the city

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Ensure consensus regarding long-term direction of the city and the metropolitan area (plan efficiently on the basis of a long-term strategy implemented by the city and its companies, and land-use planning documentation respected across the whole metropolitan area)	Sociological survey – agreement on the statement „People can find good agreement with each other in Brno,“	coefficient	2.28 (2017)	1	
	Sociological survey – agreement on the statement „Brno is developing harmoniously in the area of construction“	coefficient	2.3 (2017)	1	
	Approved Brno 2050 Strategy with an up-to-date action plan	number	0	1	
	Approved valid metropolitan plan	number	0	1	
Concentrate investments into strategic development areas of the city and carry out an active property policy of the city	Proportion of capital expenditure within the city budget	%		growing trend	
	Proportion of investment volume into priority development areas within the city budget	%		growing trend	
Create a sustainable and functional system of strategic brand management of the city and region brand based on modern principles of content marketing, and city identity	Image of the city as seen from the inside	summary indicator	1.94 (2017)	1	entire city
	Image of the city as seen from the outside	summary indicator	1.88 (2017)	1	entire Czech Republic

Functioning Brno metropolitan area

Description of the value

In 2050, the city of Brno does not profile itself as unit enclosed in its functional and administrative boundaries, but as a part of a wider metropolitan area. Brno cooperates with the towns and municipalities in its hinterland for the purpose of coordinated and interrelated development of the entire Brno metropolitan area. Collaboration is beneficial for all the involved stakeholders. There is consensus that the metropolitan level is the basic principle of the creation of conceptual documents of spatial (strategic and territorial) planning of the entire Brno metropolitan area.

Benefit for the city

An interrelated system of relationships across the Brno metropolitan area (Brno metropolitan area) is a catalyst for its economic development and competitiveness. Thanks to the coordinated development and management of the Brno metropolitan area , increasing demands are satisfied on the quality of the technical and transport infrastructure, the environment, accessibility and localization of public services, housing and business. This increases the quality of life of inhabitants of the whole Brno metropolitan area.

Guarantor

Petr Šašinka

Head of ITI management and metropolitan cooperation at Brno City Municipality. He graduated from Masaryk University, Faculty of Economics and Administration, in the discipline Regional Development and Administration - specializing in his doctoral studies in the possibilities of institutionalization of metropolitan areas in the Czech Republic on the example of the Brno metropolitan area.

Table 21 Functioning Brno metropolitan area

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Functioning and cooperating metropolitan area	Number of shared agendas tackled in metropolitan areas	number	0	10	Brno metropolitan area
Firmly anchor the concept of "metropolitan area" as an important spatial level in the development of a territory (set standards the "metropolitan" way)	Existence of legal standards in the Czech Republic, which define and anchor the set of issues of metropolitan areas	number	1	20	Czech Republic, regions, municipalities, metropolitan areas

On the principle of shared responsibility, create and fulfil a spatial vision of the Brno metropolitan area, on which there is consensus (think conceptually the "metropolitan" way)	Existence of policy documents dealing with strategic and spatial planning in metropolitan areas (at the level of the JMK municipalities, the South Moravian Region, the Czech Republic or cross-cutting thematic concepts).	number	1	10	Czech Republic, regions, municipalities, metropolitan areas
Raise awareness of the added value of metropolitan cooperation among its inhabitants	Indicator of cohesion of the population with the Brno metropolitan area	%	not available at the moment	70	Brno metropolitan area

Efficiently functioning electronic administration

Description of the value

In 2050, Brno speaks the language of ordinary people, not a formal constructed jargon. Information is easy to find traceable and comprehensible to all. It is always up to date, trustable, instructive, impartial, simple to understand, useful and accurate. Brno creates places that make it easier for citizens to find traceable information about the city and access to services provided by the city. The information system of the city and its organizations is integrated into the eGovernment system; the actions and communications carried out by the citizens and by the city will be conducted prevalingly in the electronic form. Cyber security is ensured across the system

Benefit for the city

Transparency and clarity will have a direct impact on people's quality of life. Repeated enquiries from citizens to the authorities will be reduced. People will know what is happening in the city, where the city is heading, and why. Citizens' involvement in city affairs will grow, and so will the possibility of obtaining feedback or suggestions for the development of services. Introducing electronic administration will minimize the necessity for citizens to visit personally the authorities' offices, creating at the same time such a shape of the services that will be intelligible and straightforwardly usable for the inhabitants. The system thus adjusted can also be expected to accelerate and streamline the performance of the administration and provide a high level of insight into the services that citizens consume or may consume, with a fast transfer of information about new services towards the citizens. An increase in the quality of services will take place, giving way to a higher degree of satisfaction of the inhabitants with their shape and with the functioning of the city itself.

Guarantor

Luděk Telecký

CEO at the company TECHNISERV IT, a member of the TECHNISERV Group, active in the market since 1991. The group operates in the Czech Republic, Poland, Slovakia, but also in Saudi Arabia, Russia and Ukraine. TECHNISERV IT is dedicated to information systems focusing on electronic communications and enterprise solutions in the area of IT.

The setup of this value was collaborated on by Jan Žák a Jan Řezáč. Jan Řezáč is the CEO of the company HOUSE OF ŘEZÁČ. He works as a web consultant. He graduated from the Faculty of Informatics of Masaryk University in Brno. He wrote the first Czech book on the web design process – *Web ostrý jako břitva* (A Razor-Sharp Website), followed by most Czech web designers in their work today. Jan Žák works as a lecturer at Masaryk University, where, besides teaching with the help of simulation executive games I have led and developed for several years an inter-university students' competition project (MUNISS) , which now involves in its teams MU, Mendelu, BUT and STUBA (Bratislava) students. The teams prepare studies for the Brno City Municipality on requested issues. In the last few years I have also dealt with the issues of Smart city. Currently, I lead the Brněnská karta (Brno Card) project, i.e. the development of an e-shop for city services. On the www.brnopas.cz domain, an electronic season ticket ("šalinkarta") has been available since January 2017, and other services should follow. Focus is put on an efficient use of municipal companies for the provision of services to citizens and residents.

Table 22 Efficiently functioning electronic administration

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Make the city administration more straightforward and friendly towards its citizens (intuitive, intelligible and consistent processes and forms)	Satisfaction of the inhabitants of the city with the work of the civil servants at the Brno City Municipality (summary indicator)	indicator	1.73 (2017)	1	Brno
	Number of substantiated and partially substantiated complaints in the Brno City Municipality system	number	99	50	Brno
	Ratio of life situations / services that can be processed completely on-line without visiting the authority	%	3	90	Brno
Ensure easy access to quality information - user-friendly, intuitive and intelligible design (so people quickly find what they need and look for)	website of the city - intuitive, user-friendly	UX measurement according to the System Usability Scale (SUS) methodology	The brno.cz website has a mediocre to under-average score concerning a task (find a contact, get a driving licence, get an appointment...) as regards user experience and satisfaction SUS 70.72	The brno.cz website has an above-average score concerning a task (find a contact, get a driving licence, get an appointment...) as regards user experience and satisfaction. SUS 85+	unlimited
	Satisfaction with information provision to citizens about what is happening in the city	coefficient	2.16 (2017)	1	Brno

Interconnection with regional and state electronic administration and IS (integration into eGovernment systems, of the Region, or other providers and making use of their services)	Duplicated services provided by the IS SMB and other integrable IS will not account for more than 10% of IS SMB services provided compared to the ideal state of integration. (For the purposes of this document, all applications, portals, ERPs, integration busses, agendas, or communication systems that provide SMB functionality and citizen-office or government-citizen communication, are understood as IS SMB)	%	-	90	Brno and South Moravian Region
Adapt services to all residents of the city, including various disadvantaged groups (such as the elderly or the handicapped).	Number of services adapted to disadvantaged citizens, to the elderly,...	number	0	10?	Brno
	English knowledge coverage (at the Municipality) at an adequate level	1 (scarce) to 5 (full)	2	(at least) 4	Brno
Ensuring operational continuity, protection of data against loss or abuse, , ensuring communication security including security strategy	Implementation of ISO 20 000 and 27 000 standards and ensuring compliance with the KYBE law	number of certificates	0	3	-

Participative administration

Description of the value

A participatory city does not approach the public administration authoritatively, but instead gives space for some degree of involvement to all those who are interested in it. A participatory city provides good quality information about public activities, it is not afraid to take advantage of the knowledge of representatives of universities and practical experts, it surveys opinions of citizens on important political decisions, is interested in feedback and allows citizens to decide directly on part of its funds within participative budgeting.

Benefit for the city

Public awareness will be ensured thanks to a unified information portal, which will clearly and structurally present the planned and implemented projects of the city; this will as well provide an entrance area for involvement in participation activities. Coordinated involvement of experts from universities, practice and from abroad, and creation of space for expert dialogue will ensure the improvement of the quality of public administration outcome. These changes will lead to an increase in the quality of life in the city and in satisfaction of its residents.

Guarantor

Tomáš Koláčný

Member of the Pirate Party, since 2014 member of the Assembly of the City of Brno, since 2016 councillor of the city of Brno for the area of openness of the city and participation of inhabitants. He graduated from the Faculty of Electrical Engineering and Communication Technology at the Brno University of Technology in the discipline of Electrical Power Engineering and Power Engineering with a focus on nuclear power engineering. Since 2011, he has been actively engaged in promoting participation at all levels of public administration, and along with the Pirate Party's legislation team has been preparing a legal framework for participative budgeting at the municipal level.

The creation of this value was collaborated on by Simona Škarabelová – an independent consultant in marketing, fundraising, PR, and communications in the non-profit sector. She studied German Language and Literature and Economics at Masaryk University, where she also obtained a Doctorate in Economics. She worked at the Institute for NPO Marketing-Management at the University of Fribourg, Switzerland, for five years she led the external relations of ESF MU, she worked in the Council for Non-Governmental Non-Profit Organizations under the Office of the Government of the Czech Republic. For 18 years, she has been working as an assistant professor in teaching students at Masaryk University, occasionally she has been involved in research at the Centre for the Study of Non-Profit Organizations (at MU) and has been active in the non-profit cultural sector (Brno kulturní). She currently dedicates her energy to Nadace Partnerství (Partnership Foundation), to her students at MU, and her work at the Brno City Council's commission on culture.

Table 23 Participative administration

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Involvement of the general public, communities, experts and other stakeholders in local government activities through participatory tools at different levels of expertise (identification and building of a personal relationship with the city)	Identification with the city	%	61 % (39% residents feel very strongly identified with Brno, 22% strongly).	85 % (sum of very strongly and strongly)	entire city
	Rate of actively involved citizens in the framework of participatory instruments	%	<2 % (2016); 7 % (2017)	60 %	entire city
	Satisfaction with opportunities to participate in public meetings, debates of citizens with representatives of the city etc.	coefficient / %	2.18 (2017) / 35.6 % (very 6.5 % or rather satisfied 29.1 % rather)	1 / 75 %	entire city
	Satisfaction with opportunities to submit direct requests and queries to the Brno City Municipality	coefficient / %	2.22 (2017) / 33.1 % (very 7.1 % or rather satisfied 26 % rather)	1 / 75 %	entire city
	Satisfaction with opportunities and options to engage in local planning	coefficient / %	2.35 (2017) / 31 % (very 6.3 % or rather satisfied 28 % rather)	1 / 75 %	entire city
Integration of participatory tools into local government processes of the city at multiple levels (according to the extent of interest, activity and professional qualifications of the citizens)	Rate of local government processes with implemented participatory tools of the corresponding level	%	not available	60 %	entire city and each single city district
	Amount of funds designated for participatory budgeting compared to the city's total budget	%	0.02 %	10 %	entire city
	Number of city districts conducting activities for the involvement of the public	Number	not available thus far	29	
Creation of a unified information web portal of participation, in which areas of possible external involvement in public administration will be presented in a clear, structured and intelligible form, defined individual participation personas and established transparent ways to enter into a specific participation persona.	Implementation of the participation portal and definition of participation personas, choice of guarantors for each persona, definition of a transparent way to enter a specific persona at a specific level of expertise	%	0 %	100 %	entire city
	Active involvement of citizens by means of the participation portal	%	0 %	40 %	
Use of all available forms of communication and technology for equal involvement of all population groups in communication with public administrations.	Proportion of inhabitants of Brno using this or that communication channel within individual groups (adults, pensioners, foreigners, disabled, etc.)	%	In 2017, citizens were regularly informed about the city's activities: from the city district newsletters (16.4%), intermediately (23.4%), from social networks (16.2%) from regional TV broadcast (8.8%), regional radio stations (6.8%), from Metropolitan (8.0%), from the internet (8.7%), etc. - will be observed by target group!	20 - 30 % in the framework of each target group	entire city

City open in the area of data

Description of the value

Open data are a renewable fuel of the digital economy; their extraction costs the city almost nothing. Brno makes available all the data it has, except for situations where it has to protect the privacy, which has priority over openness. It is aware that without a context it can be difficult to interpret open data. Therefore, it publishes not only raw data, but also their description, including a description of the basic relationships that rule between individual data sets.

Benefit for the city

Thanks to the data, citizens, companies and their customers, as well as the city and its officials can make more informed decisions. By providing data to the public and to businesses, we will support the development of both non-profit and commercial services and applications that will make life easier for everyone in the city. However, we do not forget about the role of open data in research and development, whose support is crucial to the city. In particular, machine learning and development of artificial intelligence can move us in the short run further than we can imagine now.

Guarantor

Jiří Ulip

Translator. Member of the Pirate Party, served as a councillor of the City of Brno for informatics and openness of the Municipality. He graduated in English at the Faculty of Arts of Masaryk University in Brno. Afterwards, he worked as a translator. Since 2006 he has worked at the company Moravia IT in various positions (project manager, customer solutions architect, manager of new technologies). Besides his wife, work, and computer games, his favourite activity is data transformation.

Table 24 City open in the area of data

GOAL	INDICATOR	UNIT	CURRENT VALUE	FUTURE VALUE	TERRITORIAL PROJECTION
Open data creation is part of all city's and city companies' data processes. All data are catalogued, open data then also published.	What percentage of those data sets that could be published has actually been published?	%	4	100	Open data creation is part of all city's and city companies' data processes. All data are catalogued, open data then also published.
	The city, each of its components, and any organization established, are owned or co-owned by it, is governed by a directive describing the publication of open data	%	0	100	The city, each of its components, and any organization established, are owned or co-owned by it, is governed by a directive describing the publication of open data
	What percentage of data sets	%	0	>90	What percentage of data

	has been linked to at least one other data set?				sets has been linked to at least one other data set?
	What percentage of the total number of existing data sets (including those unopen) has been entered into the catalogue? Is it evident who is the owner of the data set, who is responsible for its (un-)publishing and in what stage of the publication process the data set is at the moment?	%	0	100	What percentage of the total number of existing data sets (including those unopen) has been entered into the catalogue? Is it evident who is the owner of the data set, who is responsible for its (un-)publishing and in what stage of the publication process the data set is at the moment?
	Applications and services that the city and its companies are developing or getting developed, provide their data as Open Data. If an application or service is a consumer of data and these data exist as Open Data, then it uses this resource.	%	3	>80	Applications and services that the city and its companies are developing or getting developed, provide their data as Open Data. If an application or service is a consumer of data and these data exist as Open Data, then it uses this resource.
Applications and services created over open data	A portal describing all services and applications using open city data with links to used data sets. Authors have the option to register their services and applications (linking to application markets). Users can rate them.	Yes / no	no	yes	Applications and services created over open data
	Proportion of users of an application/service in the given target group (by type of application /service related to number of residents, people staying in Brno, public transport users, number of tourists, ...)	%		80	Proportion of users of an application/service in the given target group (by type of application /service related to number of residents, people staying in Brno, public transport users, number of tourists, ...)