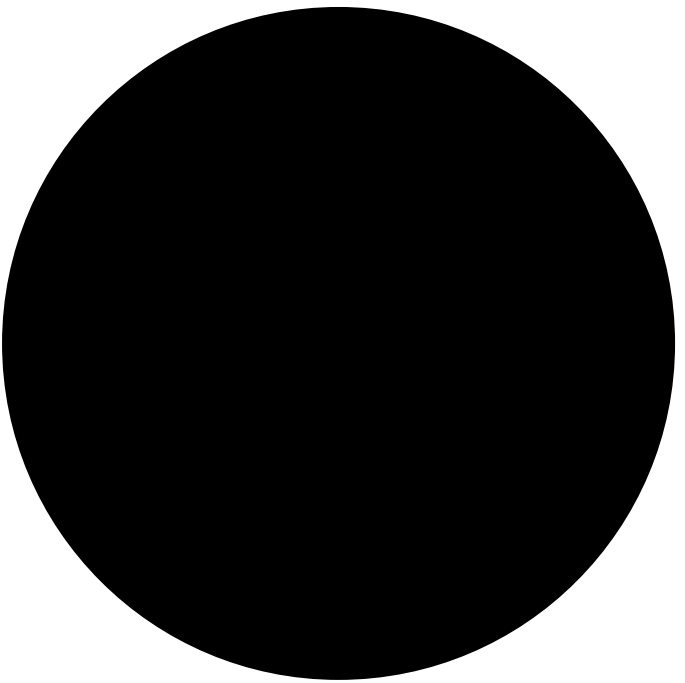
City Management and Administration
The First Second Third Book



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City Management and Administration

Tomáš Hudeček

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The Second Book

Good City Administration in the Conditions of the Czech Republic

Contents

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Introduction

In the second book, we will look at cities, their functioning and behavior from a completely opposite perspective than in the first book. Using knowledge of general development and knowing the basic triad of concentration characterized by the triadic measure of chaos, order, and choice (chaos—order—choice), we will try to unify the dualities of (1) system – decision, (2) city – human, and (3) order – chaos.

In the first part of this book, we will therefore focus in detail on the essence of decisions and the process by which decisions are made: also known as decision-making. Using several analogies between human decision-making and processes taking place in the highest management layers of the city, we will try to illustrate the essence of making every single decision.

Both the decision-making of the city and the decision-making of people – local authorities and officials in the city administration – are always based on uncertainty that makes decision-making difficult. But not only that: the defined boundaries for potential future decisions also play an important role. And also we must take into account the amount of effort that responsible decision-makers are actually able to make.

Every human decision has some consequences. The decisions of people working in the city's management strata usually have greater consequences. And it is always possible – both at the personal level and at the municipal level – to make both ill-considered and deliberate decisions. The former often slips up too much to destroy the surrounding order; the other, as a rule, flirts with not making any decision at all. It is not easy to strike the ideal measure, i.e. initiative, but extremely conscious decision-making, including the possible consequences.

The core of this second book is the definition and analysis of what is now called good governance. However, we will not approach the problem from the narrow perspective of management, but we will use the knowledge of system theory from the first book. We will try to explain how local authorities can listen to the city in the best possible way and thus estimate as accurately as possible a certain "will" of the city to take action and continue to develop further.

We will also focus in detail on the issue of planning as a form of decision-making for complex multi-layer systems. We will first try to bring a bit of clarity into the previously created entanglement of seemingly related concepts – strategy, plan, planning, goal, etc., whose former meanings, which also explains their substance well, have unfortunately already been forgotten.

We will also critically evaluate the legislative settings of strategic and spatial planning in the Czech Republic and try to find possible solutions to today's dismal state, which on one hand causes the spontaneous and essentially uncoordinated development especially in our largest cities or directly metropolitan areas but, on the other hand, also causes the inability of local governments and administrations of big cities in the Czech Republic to make good and timely decisions on the latest trends.

Part IV
Decision-Making and City Administration

Decision making requires effort and destroys the surrounding order. It is a surface nonlinearity.

Decisions regulate development. The moment of decision lies on the border of the real and spiritual world, science and religion.

Nature decides when it must, while man decides when he can.

Decisions are made among control layers. The higher control layer provides feedback for the lower layers.

There are two modes of decision-making: in times of calm and in times of crisis.

Self-government and politicians create the consciousness of the city. Subconsciousness is created by the administration and officials. Without politicians, the city will survive for a while. Without administration, there will be immediate chaos.

10. Decision-making and decision

From the previous book we already know the nature and basic characteristics of development. We also know that during the unbalanced development of systems, the concentration process prevails over thinning in the places of primary inequalities. We also know that, under certain conditions, part of this development is also bifurcation, in which the system chooses randomly in what direction it will evolve.

The choices, and we can also use the term decision[228], on the direction of further development of the system in its non-linear development, are a subset of all the changes that are taking place in it. Changes during the linear equilibrium phase of system development mean the loss of information and they happen spontaneously. Such deterioration changes are not decisions. For them, there is no need for concentration. The choice of further direction of development takes place when the concentration process prevails over thinning. Choice requires supply of power. Some kind of effort. It is always (in a limited space and time) associated with a decrease in entropy and externally it is manifested by some emergent property of the system.

Decision-making is the name of the decision-making process. In contrast to the concept of decision, however, we are not used to using the concept of decision making in systems of inanimate nature. We use it as an indication of the decision-making process of organisms or humans, as well as in human-created social systems such as cities. In this and other sections, we will already deal, almost exclusively, with these advanced complex systems. These are characterized by their intrinsic stratification, i.e. – from the cybernetics perspective – by a large number of control layers[229]. The more complex the system, the more control layers involved in each final decision[230] and the more complex the decision-making process. The decision-making process of such a complex system consists of feedback among its control layers, both positive feedback responsible, apart from other things, also for non-linear development as well as negative feedback dampening these developments.

[228] Significantly, the word *decision* is in the original and long-forgotten meaning synonymous with the word *crisis* (Masaryk 1946).

[229] In man, the number of his control layers is estimated to be 9 (Powers 1973).

[230] Layered control and control layers in both machines and man discusssed e.g. by Wiener (1963).

Research and description of actions of individual control layers, number of repetitions of individual steps, i.e. generally speaking decision-making theory, decision trees, modeling of decision-making under conditions of uncertainty and risk analysis, are all dealt with by informatics and cybernetics and in social systems, these are dealt with by a relatively young scientific discipline called decision analysis. This is based, inter alia, on the interconnection of various theories in the field of psychology, economics, management and management disciplines. The detected findings of decision analysis today are, among other things, considered key knowledge enabling people to create computer programs, find solutions to many problems conditioned by multiple factors, incorporate uncertainty into decision processes and chains as well as many other factors. Personalities and prominent theorists in this field of science – such as Stanford University professor Ronald A. Howard[231], widely considered to be the founder of decision-making analysis – rightfully consider it, to a certain extent, a foundation for the functioning and behavior of our entire society, and include in it also the study of ethics and human morality. Therefore, when seeking the essence of the decision-making of the city or other social units, it seems appropriate first to immerse ourselves, at least for a while, in the essence of the decision-making of something known to us, preferably directly in our personal decision-making.

From the first book we already know that living matter has an ability to react actively and that in man it is still possible to observe some higher, creative activity. These two kinds of behaviors can be conceived with a little simplification as the difference between the ability to learn from one's own experience and the ability to learn from other people's experience by transferring information through some advanced information channels. This evolutionary "advancement" of man from other animals on Earth is due to more striking stratification of the decision-making apparatus within our brain during evolution. In addition to the computing system connecting our internal and external receptors, which was brought to perfection during evolution, we have an extra piece of cerebral cortex compared to other creatures. Apart from the part of the brain called the amygdala, the paired structure of the brain in the central part of the temporal lobe responsible for basic and deep emotions – fear and joy – we also have a much more developed part in the front part of the brain above the eyes compared to the developmentally lower animals, the so-called orbitofrontal cortex[232]. Thanks to it we are able to express ourselves, feel and especially use a much more colorful range

[231] Decision-making analysis as a scientific discipline is inseparably connected with programming, decision-making chains and its basis lies in the mathematical decision-making process. However, its emergence and development in the 1950s has proved to be crucial in many other scientific disciplines over the next few decades. In a sense, a summary work that sheds light on decision-making is one of Howard's relatively recent works – *Ethics for the Real World* (Howard, Korver 2008).

[232] The *orbit* indicates the eye socket and *frontal* means anterior; it is the part of the cerebral cortex above the eyes, e.g. Kringelbach (2005).

of emotions for our decision-making that helps us in our decision-making.

In terms of his physiology, man is perhaps the most emotional creature that has walked the planet Earth in recent history[233], which may seem a bit contradictory to popular belief, because since the days of philosophers and thinkers in ancient Greece[234] we have perceived ourselves as creatures endowed with two basic components behavior – emotional and intellectual. More than 200 years ago they were given even special names – the subconscious and consciousness[235]. The fact that man has a more developed consciousness than other animals indicates a greater stratification of his control apparatus. In addition, each control layer enables more holistic decision-making of the given organism, the ability of different and more variable interconnection of multiple control layers and thus more complex feedback.

Human consciousness – and it is increasingly becoming apparent that other animals, including birds, have a certain level of consciousness[236] – is therefore to be understood as an emerging property of this «multilayeredness" in the human brain. Therefore, not only the control layer of the human organism can be called consciousness (this is the holistic view of psychologists), but it is also a reference to the relationship of this new layer to the lower control layers. Consciousness is also the feedback to the subconscious itself. In other words, we have a more layered system of control layers than other animals, and therefore we are "more sensible". Our consciousness is more developed, with more control layers, so it is possible to relate this consciousness to the highest control layer.

To evolve today's level of human consciousness in the distant past, our ancestors had only minimal genetic mutation and the rest of the change had already been completed by the socialization of man within the community. Our top control levels, consciousness in particular, are also part of a larger whole, society. How much we are aware of ourselves, how we perceive our individuality to the outside world, how correctly we interpret our own experiences, how we evaluate and process information, is also affected by our surroundings, which are much more socially diverse than hundreds or thousands of years ago. We haven't changed genetically since the first human grasp of the tool, but today's children grow up from the very first moment inside cities, states, and with information about the global village.

The control layers each have their purpose and capabilities. Each higher control layer – whether it is connected to the sensors inside our organism or to the receptors of the external

[233] more about the role of emotions in decision-making e.g. Lehrer (2010)

[234] The mind as a carriage pulled by two horses is a well-known simile from Plato's work *The Republic* (Plato 1993).

[235] Consciousness was introduced as a concept by the French philosopher and mathematician René Descartes (e.g. Descartes 1992). The subconscious was among the first described by the physician and psychologist with Moravian roots Sigmund Freud (described e.g. by Markus 2002).

[236] As summarized in context e.g. Wohlleben (2017). In the past, it was assumed that animals had no emotions (Shuker 2001).

environment of the organism – always provides feedback of the information and excitement of the lower control layer. The part of our brain called the thalamus is often called the gateway to consciousness, because we are unaware of stimuli that do not reach the thalamus with their energy[237]. Therefore, by far not everything from our inner environment of the organism and from our surroundings penetrates towards our highest control layer. Our hearing recognizes only a narrow section of possible sound frequencies, our sight only a small part of the spectrum of electromagnetic radiation. And even this very thinned information is again selected in our subconscious. For example, we are equipped to perceive movement, and therefore many static objects, such as buildings and their shapes and colors, often remain unnoticed in our subconscious.

With the help of sensory receptors and thanks to the ability to connect and assign perceived information with previous experience, the subconscious transmits images, sounds and other sensations to our consciousness from the outside. The subconscious mind also maintains optimal conditions within the organism through the autonomic nervous system and sensory and motor neurons in the brain. It constantly performs very complicated tasks demanding on control. When we grasp an object with the hand, we do not consider every partial movement of each muscle but realize the movement of the whole hand up to the grasp of the object. It is an unimaginably vast amount of activities, and therefore the activity of the subconscious takes up almost all of our brain's activity[238].

The existence of developed consciousness distinguishes us from other animals by the more advanced ability of self-control. For illustration, it is useful to describe it in some common situation in our life. For example, let's have a bowl of strawberries in front of us on our table. When we look at strawberries, along with the visual perception through our senses, also our subconscious emotion – I want / don't want – enters our consciousness, depending on whether we like strawberries and have a good or bad experience with them to date, or whether we are hungry at the moment or, on the other hand, whether we are full. Hundreds of millions of activated neurons in a mutual "discussion" have already agreed on a positive image of strawberries in our mind and have served us their perception together with a certain urge – to accept and eat them, or vice versa. A man socialized in society has a much greater ability to overcome the urge of his subconscious mind than other animals. Strawberries are, for example, for our little son to eat or are waiting for a finished cake from the oven to decorate it. And, of course, we can use consciousness also the other

[237] The central nervous system is described in detail in a unique three-part professional publication by Čihák (2016).

[238] What is the real ratio of the activity between consciousness and the subconscious in our brain, nobody knows exactly, but in general it is stated 5 and 95% (e.g. Sheth, Sandkuhler, Bhattacharya 2009).

way around, and even if we do not want strawberries right now, we can force ourselves to reach for them if, for example, it would be embarrassing to refuse them in a particular social situation[239].

The subconscious is very strong, because it preserves the lived-through experience and is also linked to our biological nature. This can be clearly seen, for example, in breathing – we can consciously accelerate, slow or hold our breath, but only for a limited time. Therefore, Sigmund Freud thought that in our organism, if we try to overcome any direction of the subconscious reaction, it transforms into a different feeling and then we have for example a headache, or we behave strangely and inexplicably, etc. In other words, overcoming our subconscious is not "for free"[240]. In real life, however, our subconscious urges are constantly struggling with many other and changing stimuli, and in an extreme case with our finality and mortality, and because in time, like everything else, also these thin, problematic "states" as a result of a suppressed emotion may not occur. However, the decisive factor is the depth of perception and the power of emotion. The deepest and strongest – existential fear – is the passive "effort" of inanimate matter to maintain integrity which was transformed by long-term evolutionary development. And this manifestation is in the end also inherent to cities, in turn as their "endeavor" to sustain growth and, in particular, their position in the hierarchy of the settlement system.

In general, developmentally more advanced systems with multiple control layers with inhibitory feedback have greater freedom of decision than simpler systems. For example, while the phase transition between water and steam always occurs at exactly the same time under precisely given conditions, instincts allow an insect to consider between its own survival and the survival of the whole colony – animal emotions being the essence of conditioned reflexes and the ability of animals to learn from their experience – and finally we as people can even think about whether we will think at all. People cover by their judgment a much larger area of time from the past via the present to the future. The German philosopher of Moravian origin, Edmund Husserl, named this broad human perception of the present "time frame"[241]. Nature simply decides when it has to, while man decides when he can.

And it is this ability of ours to weigh our own decisions that makes any research on human decision-making very difficult. For one can consciously reject the urge of one's subconscious, thus taking no action when viewed from the outside, yet he has made a decision for which he needed some effort. He decided

[239] about the decision-making process in detail e.g. Lehrer (2010) or Kahneman (2012)

[240] about scientific errors, not only about Freud's, more e.g. Youngson (2004)

[241] Or also otherwise called the „large presence", more e.g. Sokol (2004). According to Husserl, awake consciousness refers to the present, but this always includes the past and the open future (Husserl 1972).

not to react to the stimulus, which is somewhat paradoxical. Consider that in the case of our failure to act, this can always be caused by two processes – either no reaction or a decision not to act. Although the result seems to be the same, the essence of this result is very different, namely as a difference between a wise man and an ignorant man.

Making decisions in the way of immediate reactions to external or internal stimuli is somewhat primitive in terms of human capabilities but making decisions in the way of absolute rejection of the intuitive urge is unwise to the very nature of life. A good decision-making ability means the art of setting the appropriate level of incentives needed for decision-making. Which means the ability to consider the need for decision right away, or its postponing. In other words, the timeliness or delay of the decision[242]. As a rule – but not always – it holds true that with age, we are more conscious of our decisions and rather increase our ability to make good decisions.

In man we call the ability to consider our own decisions free will. However, with its deeper definition it is difficult[243]. If, in the general sense, a decision is always a certain response to changes in the external or internal environment of a system, then it seems there is not much room for something new, or free, in man's decision. After all, pure natural scientists – such as Charles Darwin but also countless others – call man's free will nonsense. The problem is not solvable in the field of science because, like any decision of the system, and hence also the human one, it has a coincidence at its core due to non-linear development and the principle of uncertainty. Some guidance for explanation could be the so-called Thomas theorem[244], or the self-fulfilling prophecy described in the first half of the 20th century by American sociologist W.I. Thomas, which says that if any situation is defined by humans as real, it becomes real even in its consequences. Either we are optimistic and believe that we have free will and then we really do have it, or we are pessimistic and we do not believe in our own free will and then we are truly dragged down by external circumstances. But it is probably wiser to look at it from the more positive angle, which is, after all, the basis of science, one of the postulates of humanistic psychology. Again, this, too, means nothing more than believing, which is again going away from the field of science. At this point, in our triad of concentration, labeled as "choice", all knowledge – natural and social sciences, philosophy and religion – therefore meet.

The decision-making of the city – as a complex system – is in general characteristics similar to the decision-making of the human organism. The equivalent of the highest control

[242] Similarly, the decision-making moment in time as the most significant aspect in the development of systems is emphasized by the important Czech cybernetics professor Vladimír Mařík, in the publication Bárta, Kovář and Foltýn (eds.) (2015).

[243] Baumeister, Monroe (2014) in a special chapter of the book *Advances in Social Psychology* devoted exclusively to the problems and concepts associated with free will.

[244] more e.g. Merton (2007)

layer – consciousness – is the elected self-government of the city. The mayor, deputy mayors, responsible councilors and representatives, these all form the highest control level of the city. The city administration with its information channels, officials, top, executive, tactical or functional management, analysts, strategists and planners, but also, for example, security and other organizational units of the city administration then form the subconscious of the city organism, its nervous system, its receptors.

The decisions of the city are shaped by the mutual complex interaction of the consciousness and subconscious of the city. However, this does not mean that every single decision, for example, by the city council is not important. The opposite is true. Every decision made by people in the city's self-government or city administration is important for the overall decision of the city, because each choice made determines the sequence of the following choices. Thus, in other words, each decision of one of the control layers of the system regulates the following choices. Because it delimits the scope of possible decisions for the decision of the next control layer.

In this way, the development gradually locks itself in its various directions, which was described by the American economist Paul David[245] as a concept of thought called "path dependency". He used a simile of the "QWERTY" letter layout keyboard, which is far from being the best letter layout keyboard for the English language, as it was created at the time when mechanical typewriters were used where the frequent use of nearby letters jammed. Thus, instead of today's intuitive layout, they have been placed at its edge. The whole evolution of living organisms is full of such developmental locks – for example, humans do not have a very conveniently located breathing aperture in their throats below the food receiving opening. Unfortunately, many people have already suffered the consequences for this pun of nature created when mammals developed from fish. Also, every decision taken by the city locks, to a great extent, the future possibilities of its further development. That is why each city has a different street network, different squares, different infrastructure and different houses. All of these are the consequences of past decisions that determined other decisions.

Each option is a certain development lock for the subsequent choices, which leads to the fact that the given system can no longer evolve at the end of its complexity limit and begins to connect with other systems or undergo non-linear development. Any decision should therefore be understood as regulation: regulation of subsequent development. Every

[245] from many e.g. Blažek, Uhlíř (2002)

decision violates the symmetry of beingness[246]. Its execution means that only one option has been selected. Nor does it change the fact that more options may be left within this decision to make yet other possible decisions.

We do not call the city's decision a manifestation of free will, although it could be understood as such from a systemic perspective at a general level. While in humans we have a problem "only" with the essence of the concept of free will, in the city we are rightly opposed to using it. Indeed, in the exercise of some higher will, this has been abused against people many times in the past, and we rightly fear that some social entity – such as the state – will behave like Hobbs' Leviathan[247] trampling too much people's lives and freedoms in the name of a higher good set by someone.

Both highest levels of control, consciousness and subconscious in man and their equivalent in the city, play a different role. As with human consciousness, the task of consciousness of the city lies in the ability to consider external circumstances, to consider a wider temporal and spatial framework and, in accordance with that, to decide, at the appropriate moment, as best as possible, the problems that have reached him through the subconscious.

Just as one does not know consciously anything about the processes that take place within his or her organs, so the elected self-government of the city does not know much about the ongoing processes within the (large) urban organism. Not even the best self-government in a (big) city solves traffic issues at all city intersections, delays of all buses, cracks on all water pipes, or movement of every Czech Koruna or all information in the city. Of course, it is always advisable to know as much as possible about internal processes and transformations in the organism, but this is not possible in a particularly large city. However, this role should be played by the subconscious of the city. This, in contrast to consciousness, can never have enough information to consider well all the circumstances of the future decision of the whole. Therefore, the decision-making of officials in a not-well-functioning office sometimes raises an eyebrow, because the external social consequences of their decision from their position within the office are very difficult to see.

In a simple way and with a certain, though limited, validity, it is possible to say that the inner small and everyday problems of a (big) city are solved by its subconscious, i.e. administration, and only big problems or, by contrast, serious situations reach the city council and the mayor. For example, if two cars crash on a road that is not very busy in the city and no one gets

[246] The issue is quite wide and in fact affects all scientific disciplines. By its very nature, the decision is asymmetrical; it is not possible to decide in different ways at one moment. It is similar to the violation of symmetry in the field of particle physics, where three Nobel laureates were awarded for research in this field in 2008 (Hořejší 2009).

[247] in the Czech edition e.g. Hobbes, Chotaš, Masopust, Barabáš (ed.) (2009)

hurt, both the parties involved in the accident will deal with the problem themselves through insurance companies and – from the point of view of the city – no event will be recorded. If the accident did not happen without injuries or if the damage is greater, at least the emergency service and the police are called into action and records and statistics are kept about the situation within the urban organism. If cars collided at a crossroads and block, for example, a tram, then an even higher control center is activated in the city, the transport department immediately sends a dispatching vehicle to quickly resolve the situation, or else the problem with stuck trams would soon turn into a citywide collapse.

It is best to read directly from real data how numerous the subconscious of the city actually is. In Prague, according to data from the office of the Director of the Prague City Hall, as of December 31, 2017, the clerical apparatus of the Prague City Hall itself comprised around 2,100 employees. However, if all the employees of city districts, joint-stock and allowance organizations, i.e. including schools and social care facilities established by the city, also all components of the integrated rescue system, firefighters, police officers and others add up, the city's subconscious is composed of altogether almost 60,000 employees. In fact, it is impossible to calculate how many tasks and decisions such a number of people perform each day.

On the other hand, when defining development strategies, deciding on investments and land development, during increasingly repeated traffic accidents at a certain location, but also in major crisis situations when city-wide crisis situations – such as floods – take place, these all are situations when information about them goes all the way to self-government. Its task is to initiate their solution or at least to indicate the main direction of this solution.

And again, just to give an idea, the elected self-government in Prague at the level of the whole city consists of the Mayor and other 10 members of the city council, 55-70 members of the city council and also similar, albeit smaller, self-governing bodies in city districts. Their competencies, rights and obligations are determined by laws[248], ministerial decrees, city resolutions, labor regulations or, for example, by foundation deeds, such as in employees of companies and contributory organizations. Every week, about a hundred or two hundred problems to decide arrive at a meeting of the Prague City Council. Some of these decisions – again from 100 to 200 per month – have yet to be approved by law by the Prague City Assembly, which usually meets once a month.

[248] especially the Act on the Capital City of Prague (131/2000 Coll.), the Act on Municipalities (128/2000 Coll.), the Act on Regions (129/2000 Coll.)

Both control layers and especially their interactions are important for the decision of man as well as city. If some of them do not work due to indisposition, the consequences are always serious. When consciousness does not work in man, his behavior is more focused on solving his own internal problems, i.e. more narrowly on managing fluctuations within his own subsystems. Such a person less considers the external consequences of his behavior, thinks in short term horizons, his emotions prevail in his decision-making.

When, on the contrary, our subconscious does not work, we cannot make decisions at all. We miss the engine of our decisions. We lack the energy and the ability to make the effort that is needed for every decision we make. Psychologists and psychiatrists have documented cases of people with brain damage and in key decision areas they show that without a properly adjusted emotional subconscious apparatus, we are not able to make a choice at all[249]. In other words, it means that an absolutely rational person/machine is unable to make a decision, endlessly considering all the circumstances and possible consequences, putting more pros and cons in calculating the consequences of his own decision, and is unable to take a step forward to make a decision[250].

It is always only when his deeper emotional centers are reached when man is forced to make a decision. That is why when we are exhausted, we are not able to and do not want to solve anything. Every decision requires energy. Every decision of (not only) man always takes place here and now. We make a decision when our motivation to carry it out outweighs its difficulty and complexity; when the aggregated decision profits outweigh the aggregate non-decision losses[251]. We decide when the causes from the past, together with the uncertain benefits of the future, outweigh the forces that maintain the balance of the present state – in other words, when the vision of a better future, together with the unsatisfactory feeling from the present, overcomes the fears of an uncertain and chaotic period that always occurs between two periods of equilibrium. Between two consecutive orders from our triad of concentration we draw energy for our decision-making and actions from our individual cells, which are intricately interconnected and partly subject to the control of our subconscious. We have no other energy available. Without the subconscious, we have no way of bouncing off our old deep structures. John Amos Comenius would say that we do not feel pleasure and displeasure[252].

In the city, if its consciousness does not work, i.e. the elected self-government does not work or works very poorly,

[249] more e.g. Lehrer (2010) and others

[250] This is the fundamental problem of the concept of artificial intelligence – that is, its primary driver and source of energy. Professor Jan Sokol likes to add that artificial intelligence is about as much as artificial denture. As long as mankind can do without some "man-fed" form of artificial intelligence, there is no danger from this direction. Just as the book can be closed, the computer, mobile or IT headquarters can always be turned off.

[251] Describing the decision-making process as a choice between aggregated benefits and costs is most often found in the economic area, but also Hayes (2003) addresses the topic.

[252] Komenský, Makovička (ed.) (2013)

the decision-making ability of the urban organism is limited to solving only internal (and rather acute) urban problems. By switching off the highest control layer, the city "disconnects" from a larger whole, i.e. from other cooperating cities in the settlement system. In addition, the ubiquitous process of thinning is under way all the time, and hence the overall ability of the city to deal especially with emerging problems is gradually and in the long term declining. However, when the subconscious of the city does not work, usually due to inappropriate interventions of the local self-government in the staffing of key clerical and managerial posts, this is a very dangerous situation for the city and especially its inhabitants. For example, there is no regular inspection, no maintenance of infrastructure, and as a rule no new investments into maintenance and renewal take place.

From the above-written it follows that a certain interplay and balance of both control layers are crucial for the good functioning of the organism – even the urban one. The subconscious constantly needs a certain amount of stimuli, otherwise it tends to grow lazy and fall. Consciousness needs support from the subconscious as well as energy and information from within the urban organism for its action, otherwise it cannot make decisions. In the language of municipal self-government and administration, this implies the need for some reasonably high tension among politicians and officials or city managers, but also a certain degree of mutual consideration and understanding. Cultivating this relationship – both among politicians and officials, and among politicians themselves and officials among themselves – is the cornerstone of a well-functioning city. And it is a little obvious question which electoral system and which national legislation helps this cultivation best. We will deal with this later.

There are two different decision modes for each system[253] based on the relationship, and thus the possible dominance of one control layer over the other. Again, it is appropriate to explain this on a human example. As a lower and older control layer (i.e. structure), the subconscious in man is more reliable and faster in decision-making in situations that we know well and we have already made several decisions on them with positive results. In these cases, it is useful to follow it. Among other things, the training of top athletes is based on the ability to turn off consciousness "on command". During their performance they need to realize only subconscious reactions to the game or the outside environment. Consciousness is slower and therefore at the top performances to their detriment. That is why athletes learn to achieve the so-called "flow" state, in

[253] Two basic decision modes are described e.g. by Ariely (2010), Lehrer (2010), Kahneman (2012) and others.

which their movements learned during their heavy training are not hampered by anything.

However, if the situation is new to us or if the choice depends on many factors, then the subconscious is a bad guide. Decisions based on it alone are statistically worse than random. If, as a rule, a man chooses a car, he spends a lot of time over the performance and consumption tables to find out after long weeks of choosing that there is no ideal car. In such cases, it is necessary to involve consciousness, the ability of our brain to consciously withdraw from the problem, and to set priorities for the choice first. For example, if we need a large, family and economical car, we limit the number of cars to a certain set and make it easier to choose from it. In these situations, it is worthwhile to make slow decisions, to define the goals of one's decision-making, to consciously consider a wider time frame and external circumstances. Or, a man can also ask his wife. As a rule, women are subconsciously able to choose a car for themselves, as they do not pay much attention to technical details.

The city also has two basic modes of decision-making: fast and slow. Slow decision-making takes place in periods of calm and peace, while quick decision-making is gaining importance in times of crisis, such as during floods, fires, major power outages or major accidents. At a time of slow decision-making, the city council meets, discusses intentions and plans for a long time, approves budget measures and from the experience of other cities collects impulses for new tasks that the city could deal with in the future or use to improve its functioning. At a time of rapid decision-making big water is rushing onto the city and it is important to act quickly. The ideas of the city in these situations become short, basically at the level of life of its inhabitants. The bridge is being built for years, the evacuation takes minutes or tens of minutes.

In times of crises, the importance of consciousness is extremely concentrated in the first few moments of the given period of time. In the example of human action, this can again be likened to an unexpected attack and the choice of the first reaction. In this case, we will likely be startled and start running. However, we can also have already some experience and be able to intimidate the adversary taking a step forward. In a crisis, everyone behaves the way they really do. Whatever we decide, all other activities – already totally subconscious and automatic – will be carried out according to this first decision.

Each crisis period will always check the quality of the city's decision-making during previous periods of peace. In those periods the elected self-government implements

decisions and long-term directions and frameworks of development. It directs further development of the city. Therefore, it is not appropriate to call it management, a better word is administration. During the period of crisis, the city operates, on the contrary, more hierarchically from above. The powers are delegated in case of crisis or even in the case of declaration of crisis states, such as the State of danger[254] or Emergency state[255]: in the case of Prague to the Mayor, in regions to the governor, in municipalities and towns to the chairman of the village or town. We will deal with crisis management in more detail at the very end of our narration.

[254] Section 3 of Act No. 240/2000 Coll. on crisis management

[255] Art. 5 and 6 of the Constitutional Act No. 110/1998 Coll. on the Security of the Czech Republic

Primary decisions are those made in the city by its residents. The decisions of the control layers are secondary. Both are decisions of the city.

City administration is a summary of all secondary decisions made by politicians as well as officials in the control layers.

Nature decides when it has to. Man, if he can. Cities when people want to.

Secondary decisions can be late and early with respect to primary decisions.

Public administration has low motivation to make decisions and take responsibility.

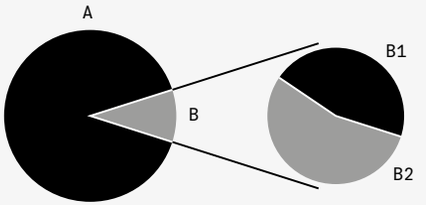
Good administration means making decisions at the right time, actively responding to development trends and addressing their causes and consequences in a timely manner.

11. Primary and secondary decisions of the city

Countless changes occur during the day in every city organism, even in a small one. They happen at all levels. The smallest ones, at the particle level, are the most numerous, while the large ones, such as building a new bridge, are the minority. The vast majority – in terms of the number of changes – is not at all related to the functioning of the city on our human scale.

But even the rest of the changes – those that are somehow related to people and their activities – are enormously large in numbers. Many of them happen spontaneously; they are from the point of view of the whole systems deterioration changes that are the result of thinning. People are dying, houses are falling apart, infrastructure is breaking down more and more often, streets are overgrown with weeds, etc.

In the city, however, it is possible to observe also changes related to people and at the same time forming the city. These are the consequences of concentration, increasing complexity, diversity and order. These are various human decisions manifested, for example, as building houses, introducing and supplying electricity, putting new tram lines into operation. But these are also changes, such as the very arrival of people



A Other changes in the whole system
B Changes related to people and their activities
B1 Spontaneous deterioration changes
B2 Urban-forming human decisions

FIG. 22 – Approximate relationship of the number of changes in a prosperous urban organism per time unit, source: elaborated by the author

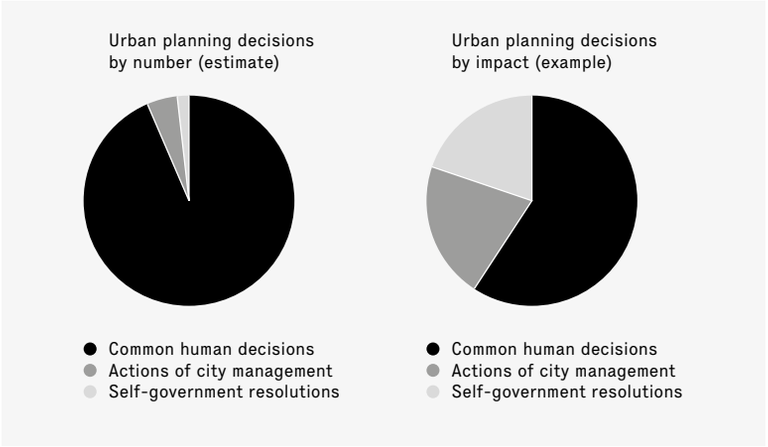


FIG. 23 – Number and significance of changes in the city, source: elaborated by the author

in the city. In a healthy and developing city, these city-forming changes are slightly more than the deteriorative ones (FIG. 22).

All human decisions "within" the city shape decisions of the whole urban organism. Or, if we want to emphasize their smallness, we can say that these are small steps that together make up the city's decisions. When looking at the city from a distance, they are not visible at all – especially if it is a big city. However, the summation of many human decisions is usually already observable.

However, some people's decisions are more significant, which means that the impacts of those decisions are greater. These are carried out by people elected or employed in the city's management strata – in the city's self-government or management, administration, the city's security services, or in other city organizations. These decisions of self-governing bodies, but also more numerous decisions of the city administration and management, make up a small fraction of the total number of human decisions in the city. The significance of these decisions, however, is in inverse proportion to their number. One decision by the city administration, such as regulation of traffic, nightlife of the city or investment actions, has more far-reaching impact than ordinary everyday and extremely numerous decisions of the city's inhabitants. It is not easy to determine, and it is not easy even to estimate the relationship between the number and impacts of these types of urban decisions. In liberally administered cities, this ratio will be different than in those administered directively. FIG. 23 thus shows one of the possible ratios.

The decisions of the city made by its management strata, i.e. politicians as well as other parts of the city administration,

are of a completely different character than the ordinary decisions of the city's inhabitants; i.e. than decisions made within the "body" of the urban organism. These are feedback, decisions originally made as a result of the decisions of the city's inhabitants, although after a long historical development of cities, this causality is increasingly difficult to discern today. We will therefore call these two types of decisions primary and secondary.

At the time of the initial clusters of inhabitants, the embryos of later cities, only primary city-making decisions were made. These include also the very first decisions on the settling of the population in a given place. Primary decisions always include an aspect of spontaneity of development. From the point of view of the whole system, i.e. the urban organism, there is no feedback in them, their accuracy was/is assessed directly by natural selection.

This is well seen in the area of spatial development, where the primary decisions influenced the shape and structure of the city. The primary decisions formed the first organically grown street network full of crooked and fractally arranged streets, which can be seen today only in the hearts of historic cities such as Rome, Toledo, Prague, Olomouc and others[256].

As the population clusters grew gradually, their carried out decisions – such as how and later who would collect taxes, how and who would enforce order, how and who would decide on violations of agreed rules and many others – gradually began to settle. At first, customarily, later, and often even within higher social units – principality, kingdoms or states – in the form of rules, norms and laws. Therefore, even (municipal) elections belong to the primary decisions.

Chosen/elected representatives first had the task of passively guarding the heretofore agreed upon rules. However, as the intensity of interpersonal relationships increased and the number of problems increased, their services were increasingly in demand. These representatives of the whole city gradually accumulated enough energy, gained a sufficiently strong position and began to exercise the entrusted area of city administration actively. In this way, a strong element of feedback – the regulation of human decisions – was introduced into the population cluster. This created and stabilized a complex social system, which we call the city. And precisely this establishment of rules, responsibilities and rights in a cluster of people is the essence of the Latin word civitas[257], from which the English designation *city* emerged. Thus, exclusively primary decision-making of people has, by historical development, transformed into a mixed decision-making of a city full

[256] These are selected cities from countless possible, which are mentioned e.g. by Hrůza (2014).

[257] Harper (2018d)

of primary and secondary decisions (= first and second order regulations) arising from the relationship of multiple layers of the urban organism.

This process of the emergence of a system always takes some time and is the same in all growing social systems – be it cities or, for example, corporations. However, a similarly initiated but much less completed process compared to welfare systems can be observed also in animal groups or, for example, in the forest[258]. First, the seeds of the layers appear to help the system elements coexist so that these already institutionalized layers begin to regulate and limit them later. This leads to organic interconnection of the body and the resulting control layers of the system and the linking of their feedback, which is further developed partly also by inertia. This will create stable structures more resistant to both disruption and also developmental change. It is a bit like starting the engine, not catching for a while, but then it goes to full speed and, on the other hand, it takes a while to stop.And this development is again clearly visible in the spatial development of the city. The moment of a sufficiently strong mayor in a sufficiently rich city meant the hiring of an architect who drew a more or less regular street network and the further development of the city had already gone along such planned routes. Later established cities – especially in the New World – have already started with such a network in their center. Today, no city is able to return to organic growth in its development, only the remains of these original street networks can be found in the hearts of historical cities.

The primary decisions of the city are consecutive human more or less rational decisions. Thus, in turn, each of the deciding residents was influenced by the choice of the previous one, but he had equally broad choices at his disposal – with one exception: the one made by his predecessor. The primary decisions in a big city are a response to the demand for development. In the case of sufficiently developed freedom of the population, there is always someone to meet the demand, essentially "immediately".

The secondary decisions made by the self-government and the city administration are different. These are feedback loops, where each step of the responsible person in one control layer is closed between the constraints of the previous decision of another responsible person in the other layer[259]. As a rule, secondary decisions are:

tied to specific persons, employees or elected representatives, or at least specific clerical and elected posts; delimited by a previous decision in one of the other control layers of the

[258] Wohlleben (2016 and 2017)

[259] From a city-wide perspective, the primary decision cannot be disputed. Conversely, secondary decisions should always be sufficiently argued.

city; limited by the vast number of boundaries – laws, norms, rules or customs – usually defined by higher social units.

That is why primary choices in total show more complex shapes, for example fractal formations in the street network – on the edge of order and chaos, at the limit of the complexity of our world. And, conversely, secondary decisions do not reach this level of complexity. Simplicity prevails in them, such as a regular street network in the form of a grid.

The secondary decisions of the city made during the decision-making process are called city administration (and continuous management effort is politics). These are decisions carried out in accordance with the laws of the given state, either as a collective representative's or individual mayor's decision. These are all (regulatory) measures, investment plans, announcements of grant schemes, budget measures, operations with property and territory, personnel policy of the employees of the office, municipal companies or schools and many others.

Secondary decisions are always made within a chain of successive steps. The decisions of the municipal authorities always precede, but also follow many decisions of the city administration or even more primary decisions made by the residents of the city themselves. Inside such a decision tree there are always many human choices and actions. In each of these steps, the people concerned have some freedom to make decisions, but the decision barriers are usually smaller and smaller towards higher control layers. At the level of self-government, with only a few exceptions (but these are also important), it is almost exclusively a matter of the choice of not making decisions, postponing decisions, or, on the contrary, speeding them up against trends.

This is why more advanced systems have more discretion in decision-making than simpler systems. People with free will can think whether they will think, and this is being transferred also to the level of cities. Nature decides when it must. Man when he can. And a city when people want[260]. This freedom of decision means that, against measurable trends – for example, a sharp increase in car traffic on the city streets – self-government and administration may or may not respond immediately, or may not respond at all. The decisions of the city's management strata can therefore be viewed in terms of their suitability time. These secondary decisions of the city can thus be basically threefold – early, timely and late – given the development trends.

When the city's decision is too quick, it was probably someone's professionally unsubstantiated private interest at some

[260] And here lies the interface and problematic point of the relationship between man and social units. The distant observer will see that in the end someone will ultimately make a decision, and accordingly will judge the evolution and self-organization of society. In other words, „there is always someone who ultimately decides to do that". However, the persons „know" that the decision is up to them and can always choose not to make it. The philosopher Henry Bergson thus discusses precisely those cases where the failure of one person results in the decision of another, or, vice versa, the decision of one results in criticism of that decision from another person (e.g. Bergson 1947).

management level, corruption, or, at best, a manifestation of ill-considered waste of resources. If, on the contrary, the city's decision is late due to threatening trends, it is a certain manifestation of inability to decide, manifestation of incompetence of self-government, or the result of some fundamental and problematic change in circumstances. Late decisions are also often the result of too large friction surfaces within the decision-making process. The early decision of the city seems to be useless from a distance, the late decision often takes the form of a hysterical and unprepared response to a long-unsolved and already largely atrophied problem.

A decision made by the city in the light of development trends at the right time is very likely to become a solution to a particular problem and not trigger a cascade of new problems. As a rule, a bias when making decisions outside this suitable decision window almost always causes some problem. Such new measures are usually abolished later, significantly reworked or fail to be implemented completely. However, the results are not always what they would be during a normal, timely decision.

A suitable example is the long-term and continuous, but from the point of view of individual tasks discrete maintenance of the infrastructure. For example, the functioning of a water or sewage network is evidence of timely decisions. However, in order to keep this, it is still necessary to monitor the frequency of breakdowns all the time and, in the case of a rising incidence curve, to intensify their maintenance and invest more funds in its recovery.

Early secondary decisions of the city are usually unnecessary projects created on the basis of the private interest of the self-government. These may include, for example, more frequent road repairs to secure related party contracts, overpriced contracts for cleaning, IT technologies, or unjustified support for part of the territory or some organizations. It is perhaps even symptomatic that especially early decisions in the Czech Republic are often called political decisions, while proper decisions – even though they are equally political – rarely get this attribute, or rather an "explanation."

One such typical, but very important, early decision was the effort of the Capital City of Prague in 2007 to organize the Summer Olympics in Prague[261]. This intention of the then city self-government was not based on any internal needs and motivations of the city. There was no analysis of the population's demand for the Olympic Games. The economic calculations and analyses of such complicated problems are not enough, as they can basically always be made to order so that

[261] Resolution of the City Council of Prague No. 5/1 on March 22, 2007, also, for example, aktualne.cz (2007)

the organization of the Olympic Games "seems" advantageous or vice versa.

The Olympic Games are sometimes profitable, sometimes loss making. The built infrastructure is sometimes used, sometimes not[262]. The use of a benchmark can help – for Prague, the city of similar size, which organized the Olympics, is the Catalan Barcelona. The Summer Olympics took place there in 1992 and literally got Barcelona on the world map. And here it is necessary to see the crucial difference. Barcelona was and is the capital of an increasingly separatist Catalonia, and the organizing of the Olympics there was something of a national struggle against the Spanish Madrid. Unlike Barcelona, Prague was and is on the world map. Everyone knows "Prague", but not everyone knows "The Czech Republic". Prague is generally better known in the world than the Czech Republic, thanks to tourism, which is, moreover, not very welcome among the citizens of Prague anymore nowadays due to its extreme extent. Therefore, the Olympics should be organized rather by the Czech Republic, i.e. two other large cities – Brno and Ostrava. In Prague, such motivation can hardly come from the inhabitants – even if the then self-government tried to claim the opposite. This typically early (premature) decision of the city in 2007 cost in the end, if we do not count the investment of CZK 17 billion to the still in the field ending extension of the metro line C, between CZK 70-100 million only on analysis and assessments[263].

[262] Luňáková (2010)

[263] Krupka (2010)

Early decisions undermine other, more necessary expenditures of the city, thus reducing the city's competitiveness. Late decisions, however, have a similar negative effect. Again, infrastructure is a good example. Let us take a model example of late decisions: The limit capacities of technical or transport infrastructure is increasingly reached in the city during the day or week, and this is not reflected by the political representation for various reasons. The network is not strengthened and expanded adequately to the problem. Repairing such congested infrastructure networks poses enormous problems for the city. The serious consequences of such late decision-making usually result in a cascade of events that lead to a decline in the standard of living of the population or to the absence of new people coming to the city and outflow of the existing ones, a decline in the city's importance, weakening its competitiveness and contributing to its long-term decline.

The complexity of the system in which the decision-making process is implemented plays a large and significant role in the delay in decision-making. Decisions made by responsible decision-makers in the council or municipal board or within the

city hall at the level of city management are defined by many limits – laws, standards, but also e.g. information, technological, but also ethical limits, which make the whole process more difficult. Delay in the decision-making process is a function of the number of decision-making places, the number of actors and their interests[264]. In other words, fewer decision-making steps mean fewer opportunities for a problem to emerge and thus the probability of completing the measure is higher. However, especially for large-scale projects such as the implementation of new city policies, public administration reforms or large infrastructure investments, a large number of actors, sub-decisions and control layers are needed, and therefore extreme human effort of each of the actors is required for the implementation of the decision.The high complexity of the decision-making process can be caused also by the excessive size of the given decision in relation to the capabilities of the city administration or, for example, by the poor choice of the control structure of the given project. What is often to blame is leaving the main responsibility for countless projects to the busy department director instead of entrusting them to the project managers. It is not a well-known fact that the Blanka tunnel complex (built in Prague in 2006–2015, whose costs increased from the originally planned CZK 31 billion to the final CZK 37 billion[265] and the opening was delayed by 4 years due to 2 crashes during the construction itself and due to legal problems related to a poorly selected supplier model) was managed by one single person at the Prague City Hall.

Every decision is a result of the concentration process and therefore requires effort and energy. Public administration in general – especially within the city administration – will never have as much energy as the private sector. Therefore, it cannot overcome the too great complexity in decision-making. Employees in the public sector are usually less motivated – for example, by their own profit – than employees in a well-functioning private company. It is always easier not to decide and let the forces of chaos act than to activate energy and establish a certain order.

Therefore, human factors will always play a big role in decision-making in public administration, i.e. low motivation for making a decision or low decision-making ability in responsible decision-makers. This is well described by the former Minister of Transport and Dean of the Faculty of Transport of the Czech Technical University, Prof. Petr Moos, in his publication Manažerské rozhodování v praxi *(Managerial Decision-Making in Practice)*[266]. A responsible person – the mayor or a member of the board – always looks for such behavioral procedures

264 In a practical example of a development project in Oakland, California at the end of the 1960s, this dependency is shown by Pressman (1973).

265 E15.cz (2017)

266 Štědroň, Moos, Palíšková et al. (2015)

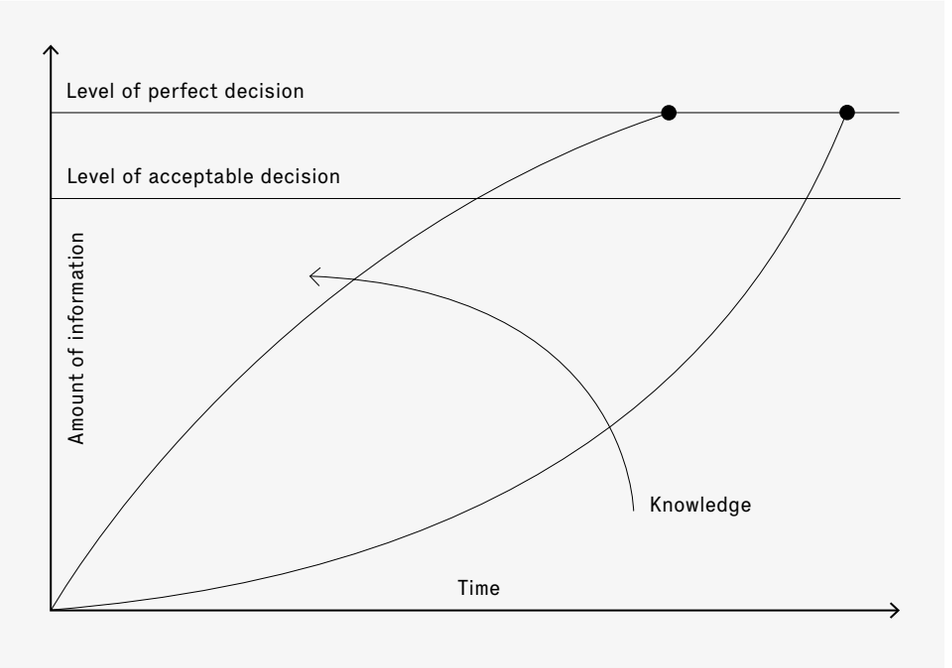


FIG. 24 – Curve of the dependence of the quality of the decision on the amount of information, source: Štědroň, Moos, Palíšková et al. (2015)

that offer him the maximum probability of making the right decision and hence minimal uncertainty in decision-making. Such a decision-making process is illustrated graphically in FIG. 25. It is a function of the probability of making the right decision, which depends on the amount of information needed to make a decision, the time it takes to get it, but also the skills and knowledge of the decision maker (knowledge curve in FIG. 24). The graph shows that with higher quality information, less is needed – the upper curve and vice versa. The power to change things and make good decisions is based on the amount of information[267], but the graph also shows that, from its certain amount, it no longer contributes much to the quality of decisions.

It is important to realize that decision-making of individual persons within the city's decision-making process is relativistic in terms of information. While the given person feels that due to information, work or political pressures, (s)he had to make the decision in question, a remote observer usually feels that the decision may not have been made yet. And vice versa. Everybody is under the influence of different responsibilities, different surroundings and different information. Therefore, people with a lower knowledge curve cannot know that it was

267 The role of information in relation to rationality in decision-making in the public sector is elaborated in detail e.g. by Flyvbjerg (1991).

possible to make better decisions. However, the reverse is also true: the persons observing the decision-making process do not know all the consequences, often also internal, political or related to a political party, that led the given person to a no/decision.

Unfortunately, weaknesses in decision-making abilities of individuals that reduce the level of complexity of the problems, which these are able to decide, are not much improved even by the city's collective decision-making bodies. Rather, on the contrary, because there must be agreement among the members of these bodies on the final decision. It depends on whether the decision of collective bodies resembles more to the intersection of interests than their unification. Usually, there is an averaging of opinions and compromise variants. For such a group decision-making technique, the term "groupthink" has been established in English. This technique of individuality in the group forces them to think in agreement with the group. Groupthink was described already in 1952 by American urban planner William H. Whyte as a situation in which, in the interests of consensus, group behavior suppresses the independence and decision-making of an individual as well as his or her independence and self-censorship occurs due to the pressure for uniformity. As a result, cohesion and solidarity within the group outweigh the search for a rational decision[268]. It is therefore a hot topic today to discuss the need for collective decision-making at all self-governing levels in the Czech Republic. Whether the direct election of mayors, who in the exercise of their office are subject to a disproportionately greater extent of restrictions by laws and norms anyway, and thus their hypothetical over-grasping of power is far from fulfilling the degree of which we might be afraid in the somewhat "out" of laws standing, for example, president, was not more suitable for the functioning and decision-making of our cities.

By combining the complexity of the decision-making process and the human factor with extremely low decision-making motivation, there may also be a situation when a late decision becomes a non-decision. An example from real practice can be the fall of the pedestrian bridge in Prague-Troja in 2017. This happened despite the fact that the City Council has repeatedly received reports of its poor condition[269]. The administration waited inappropriately for the direction of the self-government which, however, ignored the internal problems of the city. Not only that the footbridge was not repaired but – and that is the main problem – it was not even closed to the public. Fortunately, its fall resulted only in four injured persons. The situation subsequently triggered a rapid reaction.

[268] The article was published again on the Fortune magazine website after 60 years (Whyte 2012).

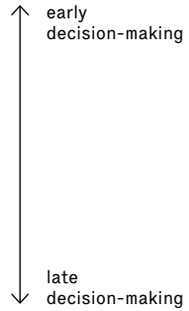
[269] Prokeš (2017)

[270] Nuc (2018)

Shortly thereafter, on the night of January 18, 2018, another bridge in a long-term poor condition – Libeňský – connecting Holešovice with Karlín in the Vltava meander[270] was closed without any preparation. The city administration, i.e. the subconscious of the city, after the bad experience with "waiting" for self-government, i.e. the consciousness of the city, acted too independently. The recent fault in the decision-making of the organism caused a panic emotional reaction, which subsequently, like an epidemic, spread also to other cities in the Czech Republic, which immediately began frantically measuring the conditions of their bridges.

From the above-described examples follows that the variants of secondary decision-making, which we call city administration, can be divided into 4 groups in terms of their timeliness:

1. the city administration does not act and does not decide
2. the city administration carries out only necessary measures, extinguishes problems
3. city administration proceeds actively, motivates residents, solves problems in advance, is prudent towards trends
4. the city administration presents or manages, above all, itself



Situations in which the city's secondary decisions are not made are no longer very common in cities in developed countries. Ensuring the basic operation of cities is ensured by standards, laws or possible activity of the state. But also by the democratic system which is a certain (even though only in the long run) safeguard against bad governance. The last, fourth, point is, however, essentially the same as point 1 in terms of the future development of the city. In essence, this is not secondary decision-making of the city, self-government officials only deal with their own projects in the city authorities[271].

Depending on the culture, political practices, but also the powers entrusted to the cities by the state, the city administration usually lies somewhere between points 2 and 3. However, the city administration, which makes timely decisions, is only a necessary, not a sufficient condition for good governance. We will therefore focus on other aspects of good governance in the following chapters.

[271] It does not have to be a project, though. E.g. the approval of the Prague partnership agreement with the Chinese Beijing by the City Council of the Capital City of Prague can be seen as an early decision. The City of Prague on 25 February 2019 by Resolution No. 14/2, which contained a generally criticized clause on the recognition of one China's policy by the majority of Prague's population. The entire resolution was not based on any relevant cooperation of these cities in the past, and therefore, beyond its initial narrow-minded political capital (paying tribute to the Chinese President during his visit to Prague in 2016) ultimately nothing remained of it, as the relationship between the two cities was again undone by another political representation in the second half of 2019.

City administration is a balance between what the city wants, what it is skilled to do and what it can.

People determine what the city wants. What the city is skilled to do is based on the history of its decisions. And what a city can do is defined by the state or general limits of development.

There are three basic areas: space, economics and society.

The most important boundaries of administration are administrative borders, limited financial resources and human and civil rights.

In the Czech Republic, city administration is extremely limited by the exercise of delegated powers of state administration.

Large cities in the Czech Republic are too opposed to the legislative-unifying efforts of the state. A big city cannot be managed and administered in the same way as a small one.

12. Basic areas, limits and role of city administration

In the last chapter, we defined the city administration as a summary of the secondary decisions of the city, i.e. the decisions of people – politicians in self-government and officials, managers and others in the city administration. The concept of city administration therefore encompasses this group of people as well as the activity that these people perform through their decisions. In this chapter we will try to look at the city administration in terms of its quality.

People have been looking for a suitable model of good governance since the first cities were established. Across epochs, throughout our history, we have been trying to create and subsequently manage our cities as suitable and purposeful for life[272]. But at the same time, cities also declined and ended because they were destroyed mostly by ignorance of the most important human things[273]. Therefore, in history there has never been a single right recipe to guarantee their subsequent millennium existence and harmonious development.

Some places have in their development proved more suitable for people's lives and their concentration, some less. Natural selection in the history of urban development demanded fertile soil, or frequent flooding, or port security, the availability of natural resources, or the inaccessibility of well-situated hills. Similarly, there were varied demands for elected representatives of the people, self-governing agents, when in one epoch people wanted to make their life better to be deprived of the lack of freedom to create this themselves in the following period of time.

The city administration was originally, in the times of city states, e.g. in ancient Greece, closely linked directly to the search for a suitable organization of society[274]. However, with the increasing number of levels of social organization, cities became organisms within a society-wide organization. States and settlement systems were created "above them". And that is also why the search for good city governance was separated from the doctrine of state or society-wide organization. However, while at the level of the management of states, with the

272 "Cities suitable and useful for life" is the definition used by Czech architect Jiří Hrůza (Hrůza 2014, p. 17).

273 Plato (2003)

274 Out of countless Greek philosophers, at least two basic directions of the municipality administration are necessary to mention – Plato's *Ideal Arrangement* (Plato 1993) and Aristotle's *„here and now"* practical policy of decision-making (Aristotle 1998).

growth of knowledge, state science and later also political science gradually singled out from philosophy, at the level of the city administration no scientific discipline called urban science or citylogy has gained its space[275].

Today, urbanism and partly architecture[276] are generally considered to be the science of the city, but both scientific disciplines are primarily concerned with the physical environment of the city, although also there is an increasingly growing connection with economics, sociology and, more recently, also psychology. The city and regional administration remained not exclusively, but still largely left to the administrative or legal sciences, which began to complement managerial approaches from the second half of the 20th century. And that firstly slightly, in the era called New Public Administration, later in the New Public Management era[277] more, and now relatively sparingly as the approach called good governance[278]. According to this concept, good governance means selecting and enforcing the right things (efficiency), doing them correctly (effectiveness) and communicating them correctly[279].

However, a little problem is the definition of the word "good". But with our knowledge from the previous part and the previous chapter, we are already sufficiently equipped to deal with this. We already know one aspect of good governance. It is time. Good governance means making decisions in time against trends that we have to be able to recognize and identify. It is also necessary to know the tools of good governance and also its content. We will look at this content definition of administration first.

We have already described that any primary and secondary decisions of the city, i.e. decisions of residents of the city or responsible decision-makers in the city administration and management of the city and autonomous elected politicians, cannot be seen as separate from the surrounding cut off events. In the preceding chapters, we have described that free will of each of us is a very thin strand between pressure and changes in the surrounding environment and our internal setup, our experience. And, of course, our desires, which can be described as the causes of action lying in the future. And, similarly, also the city administration, i.e. secondary decision-making of the city executed by officials or politicians, lies on the border of the interests of individual inhabitants, interests of groups or democratic majority, but also forces coming from the existence of urban organism and higher social units that are more or less hidden to people.

Like all elements and organisms in our world also the city is constantly being pushed to make decisions by the

[275] And it is not very different even in the sphere of economics. While the level of states has its economic policy, urban economics has been enforced only in recent years and very slowly.

[276] Urbanism works with the architecture of the settlement as a whole, i.e. with its built-up as well as natural parts (Jehlík 2016, p. 11). Architecture addresses local scales, from building to settlement (Sedlecký 2015, p. 21).

[277] e.g. Banovetz, Tang, Wiesenfeld (1967), Lane (2000), Waldo (2006)

[278] The form of which is elaborated also in many practical handbooks of international organizations such as Wilde, Narang, Laberge et al. (2009).

[279] It is based on the connection with leadership issues, more e.g. Bennis (1993) or Drucker (2004).

ever-present increasing entropy, which is the basis of its behavioral objectives. These will be discussed in more detail in the chapter on planning, but here we will pause at the basic – primary objective. Cities, like all systems, strive to preserve their existence and integrity. However, during the ongoing concentration process and shrinking of the world, they compete with one another for their size and significance, and must therefore, if they are to remain on the world map, increase or at least maintain their position in the hierarchy and in some way succeed in competition with other cities. In other words, it means for them to be more attractive than other places and cities in the surroundings vis-à-vis the shrinking space.

The primary goal in cities manifests as their appealing power, which people do not perceive knowingly. We usually describe it completely the other way around, as our own desire to live in the city. This "will" in our minds takes on extreme diversity. We automatically calculate the number of opportunities for our social and economic growth in cities. We consider our potential to find our own uniqueness. The potential to find a suitable partner or social groups best suited to us at the moment. We use anonymity, which allows us to easily break free from already locked social or economic hierarchies. For example, if I am considered to be the youngest and weakest in my family or in a small village and I can hardly change this "handicap" of mine by any available activity in the neighborhood, these circumstances lose importance in an anonymous urban environment[280]. This is also part of the essence of the old saying that the urban environment liberates.

Without realizing it, we accept the attractive power of cities, adapt to it and shape our attitudes in accordance with it and behave accordingly. Its size is reflected in our attitudes. That's why the majority of New Yorkers think that their city is the whole world. They believe – and to some extent rightly – that they are leading the whole world. That's why they live in New York. Similarly, Praguers do not admit that their city would not be the best in the Czech Republic. After all, that is why they live in it and undergo also negatives arising, for example, from a large number of tourists, cars and other phenomena. And of course, everybody changes with age and social situation (family, raising children), so even our priorities are changing, and that is why we migrate – both from town to its hinterland and between towns.

Therefore, as city dwellers, we are not entirely rational beings. We are, in each moment, the results of several perceived but, above all, many unnoticed surrounding forces, and set in this way, we choose some of us to go into the city

[280] Similarly, for example, to hide the infidelity of one of the partners in the village is almost impossible, while in large cities it is (unfortunately) very easy.

self-government. We sacrifice part of our freedom and entrust part of our power to these control layers we have created. And in exchange for this, we want this administration to well-balance our interests and interests of other residents, associations and companies in harmony with the evolution of the environment, the settlement system and the world.

In other words, the main role of (good) city governance is to continually seek the answer to the key question: how can we best connect the unchangeable course of natural development that has shaped the essence and specifics of the given city in the past with the interests of (diverse) residents and groupings formed by them? However, a great mistake is also to simplify this task to "how to get as many people as possible to the smallest possible space so that they would be satisfied?" The city administration is never just about the inhabitants of a given territory, but about the ability to accommodate also wider relationships, territories and ties as best as possible. There is a big difference between listening to people and listening to the city. There is a big difference between managing Prague and thus fulfilling its responsibility for the whole Czech Republic vs. closing all driveways at the Prague borders so that residents from surrounding territories would not bother "our" residents with their cars or in any other way.

City administration is a constant balancing, that is, searching for balance within the triad composed of parts, a whole and suprawhole in the language of system science, i.e. elements (subsystems), system, and suprasystem. In the case

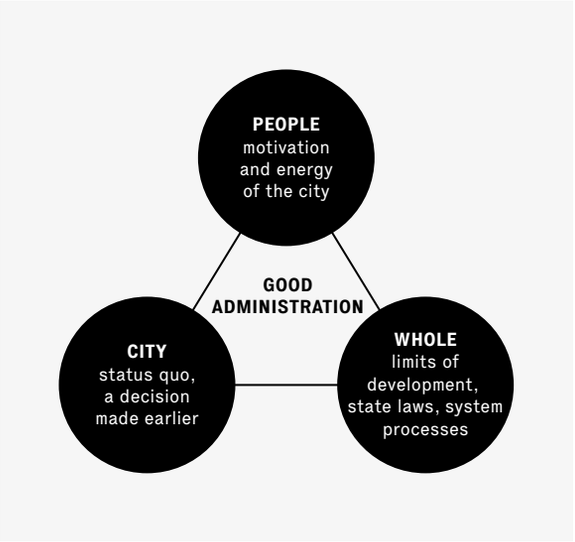


FIG. 25 – City administration triad, source: elaborated by the author

of an ordinary Czech city, therefore, people, the city itself and the state, or the European Union or the world. In a generalized form, these three elements mean the three words "want – know – can". For it is an analogy of our human everyday action, which lies precisely at the intersection of what we want, what we know and what we can do. And the same is true of the decision-making and action of the city. This triad is shown in FIG. 25 and it is appropriate to call it the triad of city administration.

PEOPLE – in the triad of governance – are the energy of the city necessary to make any decisions and changes. It is an element that tells the city administration what the city wants. As a rule, the city has no other energy to make decisions than that which comes (originally) from people[281]. If it is subdued either within the decision-making process of the city, or is even unwanted, and the city's and state's governing bodies deliberately suppress it – which totalitarian regimes are skilled to do in particular – then there is no substitute for it in the long run. Seeking and targeting the city's administration so that the activity of its residents is given a sufficiently easy passage and, at the same time, so that the excessive individualism of each of them does not destroy the city is not an easy task. Especially in a big city, it is not easy to find out what the city and its people really want. Usually only a certain interest in participation in the administration of the city is obvious.

It may not seem right to call this element people, as it has already managed to become extremely diverse in the existing evolution of cities. The inhabitants form communities, associations and societies, but also own companies and organizations, and also those associate with one another. On the one hand, there is a unifying universal suffrage[282], which in a democratic system gives everybody one and the same vote in the elections, but on the other hand, especially large development companies and investors are such important actors in the development of the city today that without them its development would not be conceivable at all. Nevertheless, all organizations are an emerging characteristic of the concentration of people[283], and therefore, especially for the sake of clarity and simplicity, we will stay with this name.

THE CITY – the second element of the triad – says nothing more than what the city can do. Previous elections that the city has undergone since its inception predetermine it for some better performance in some areas in the future and, on the contrary, for poorer performance in others. In us, people, it

281 However, in many epochs, even in the current one, this may not have to be completely true, because (some) cities can get energy (e.g. in the form of money for investments) also from the settlement system or states (competing with each other). However, with the increasing complexity of the world, the gradual emergence of an interconnected global settlement system and the continued democratization of the planet, cities / urbanized areas will increasingly fulfill the triad of city administration.

282 Meaning that every citizen from the statutory age can vote regardless of his/her gender, religion, origin, race, etc. It was introduced in the Czech Republic only after the establishment of the independent Czechoslovak Republic, but e.g. Switzerland in some of its cantons did not allow women to vote until 1990 (from many sources, more e.g. Czech Radio (2014)).

283 Despite extreme regional differences, however, the regularities mentioned in the introduction of the book apply – e.g. the American Los Angeles is generally considered to be a city with an extreme influence of firms, corporations and generally companies on the city's operation and development (Davis 2006). Nevertheless, in data used by G. West (West 2018) the population size of LA corresponds to the frequency distribution curve in the American settlement system.

is obvious – for example, someone runs fast, someone learns well. At the level of the states a certain analogy is the theory of the so-called comparative advantages[284]. For example, in cities it means that mountain resorts are better placed to be winter tourism and sports centers, towns at road junctions are more suited to business, etc. It is necessary to carry out a thorough analysis of the history of the city always and repeatedly, in order to find out what the city can do well and what it cannot.

Not all past decisions of cities must be respected. And, conversely, many of them can be overcome. Almost always, however, this requires extraordinary and often long-term effort and energy, which is usually not available to cities and their administration.

Illustrative is such an overcoming of "itself", i.e. including its inhabitants, as a rule, resisting changes, in the area of territorial and spatial structure of the city. Some large cities have succeeded in rebuilding their own center in history completely, apart from others e.g. Paris in the 19th century[285]. It was, however, due to the involvement of the power of the entire state formation and the interplay of several other factors, including the escalated or war rivalry of states and empires, and most preferably some significant technological innovation. Today, it seems that in the Western world, with the liberal mindset of the people, the interconnection of all citizens, thanks to the inner belonging of humankind and the similar experience of life, cities no longer have the inner energy needed to overcome their stabilized and old structures[286].

Therefore, sometimes the intervention of a larger whole is necessary, for example in industrial towns in connection with the closure of old industrial sites with an inappropriate sectoral structure of economic activities or generally inadequate development. As a rule, neither new technological areas in old industrial sites nor new houses in the territories of old settlements or social ghettos[287] are created by themselves. Complex social and physical deprivation of the environment is dangerous for other parts of the urban organism.

Attempts to keep such deprived areas to their own destiny have not met with much success. In order for this right-wing concept – "everyone must help themselves" – to be successfully applied also at the city level, the given city or region would have to be left entirely to their fate. Thus, for example, they would have to be separated also from the laws, from tax administration and everything that was created in the past as a result of the concentration of people. Such a step, however, usually seriously jeopardizes the functioning of the already developed state unit, which is based precisely on the unification of rules.

284 Ricardo's theory of comparative advantages, see e.g. Blažek, Uhlíř (2002)

285 Hrůza (2014), p. 404

286 as mentioned e.g. by Koolhaas, Tichá (ed.) (2014)

287 as shown by countless cases of industry e.g. Miao, Benneworth, Phelps (eds.) (2015), or in choosing the place of residence, e.g. Hall, Falk (2014)

Therefore, if deprivation is not extreme and it is not the intention of the government of a given state to create special economic zones, it is easier and generally less expensive to ensure at least partial development of a problematic territory from above. In real life, in urbanized areas this means at least bringing their environment to a condition that does not generate any burden for new development – removing old environmental burdens, financing key infrastructure or, for example, well-targeted social policies, etc.

THE WHOLE – the third element of the city administration triad – is basically the sum of the regulations and constraints of the city's development, which are given by development and higher units, and those we will now discuss in detail. These are the patterns of development and system processes. It is also the legislation of the state or supranational entity. However, these are also strongly stabilized past decisions of the city, for the change of which the city no longer has enough energy. It is an element of the triad that says what the city can do. For we can only decide about anything if we have power over the given thing.Today's cities are not the same municipalities in the sense of the Greek polis that Plato described in his works[288]. At his time polis was both a city and a state. During the long-term development, part of the rules of behavior and decision-making of the former municipality has been transferred to a higher whole, today's state. In turn, through its decision-making and the exercise of power, it penetrates through certain pillars on which it was built and stands, but which also helps to shape and consolidate, downward into the decision-making of cities.

This particular roof over cities today has its advantages as well as disadvantages for them, often both at the same time. Contemporary cities do not have to "worry" about a lot of things inside the state, but at the same time they can't take care of a lot of things. With a few exceptions, today's cities are not concerned, for example, with monetary policy, the judiciary, but also the setting of environmental and sanitation limits, which we generally consider right. However, cities are usually not affected e.g. by their own spatial delimitation, which is not always appropriate for their development. Cities also can and must solve many problems partially, i.e. in cooperation with the state, for example in the area of safety or traffic on (municipal) roads. And in this way we could continue the list.

In general, these urban decision-making constraints can be divided into several groups, and it is appropriate to link this division directly with the division of basic areas of administration. Those are basically three:

288 especially in *The Republic* or *The Laws* (Plato 1993 or 2003)

- spatial – area of administration related to geographical space, delimitation of the city environment, urban structure, but also transport and infrastructure (in terms of their localization);
- social – area of administration comprising all the activities of the city connected with people, i.e. education, healthcare, social affairs, culture, but also security and partly also e.g. tourism;
- economic – area of city administration dealing with budget and budgeting, the property of the city and its administration, management of joint-stock companies, the issue of IT systems ensuring the operation of the city as well as the municipal authority, i.e. generally economic and investment policy of the city.

Some subsystems of the city belong even to more than one of these three core areas. For example, the infrastructure is spatially localized, but at the same time it is also the property of the city, and even schools partially interfere with all three. Therefore, it is always necessary to consider which aspects of the sphere the problems are related to.

Deputies of the city manager or mayor should be responsible for these core areas on the councils of large cities, thus coordinating other responsible persons with their competencies delimited in detail. In practice, however, this is not much the case in the Czech Republic with collective decision-making bodies composed of different political parties and governance is mostly fragmented among different, not always very cooperative, political subjects.

Spatial governance barriers

These concern in particular the administrative delimitation of cities, but also their geographical location. This group can therefore include also constraints of the ecological-environmental character.

Cities are delimited by their administrative boundaries and any decision of theirs becomes valid only within these boundaries. This has big disadvantages particularly for large centers in the settlement system, as their attractive commuter-generating power generally extends far beyond the limits in which these can decide on the development of their territory. Prague is a particularly affected area in the Czech Republic (but more and more large cities are forming their own agglomerations) where basically almost half of the population lives not only in other municipalities but even in another region – Central Bohemia. These people stay in Prague, work in Prague, their children go to schools in Prague, use the Prague infrastructure, but they do not vote in Prague and do not participate in the decision-making of the city in any way. There is no feedback relationship between them and the city. Elected self-government arising from the primary decision of the city to the rapid spatial development of the city beyond its own competencies cannot or may not respond, and as a result, citizens lose confidence in the system of administration as well as in political representation. And, conversely, beyond the borders of Prague, originally small municipalities are growing extremely fast[289] and grow rich, thus speeding up the further spreading of the city into the landscape in the form of an endless urban sprawl. It is more than alarming that the above-mentioned development of urban sprawl in the Czech Republic runs at one of the fastest rates in Europe[290]. And it is also more than alarming that the same situation always occurs several years or decades repeatedly, without the Czech public administration being able to respond to it adequately and sufficiently quickly[291].

A suitable further procedure in the Czech Republic is thus to correct the administrative division, especially in places of large agglomerations. Forcing neighboring territorial units through various tools to cooperate is not enough and it does not work. The neighboring administrative unit is basically the main competitor, because it competes directly to lure the rich inhabitants from the city. In the case of Prague, this is a possible change in both directions. By reducing the territory to the edge of a compact, dense development – making the situation in Prague look similar to that of Paris, where the city administration decides on a relatively small district of 2.3 million people out of a total of 10 million living within a wider urbanized area – as well as by extending the outer space – which can be called “big Prague” – roughly according to the boundaries of daily commuting, as London did after the great reform in 2000, which will be discussed in the next section.

In both cases, however, it is necessary to transfer decision-making on the development of the city and its territory to the regional level. It is this regional decision or planning (which is addressed in other parts of the book) that is nowadays crucial for the development of urbanized areas which, essentially without any exception, in large cities, not only in Europe, go beyond their original administrative boundaries. However, this is hardly happening in the Czech Republic and the Czech Republic faces a huge and extremely important task in this respect: Because of not only the environmental reason

289 from many studies, e.g. Koucký et al. (2014), Ouředníček (2007) and others

290 Along with the need for coordinated development of the entire metropolitan area of Prague, this problem is mentioned e.g. in one of the recent OECD studies (2017).

291 Notable Czech architect and urbanist of the 2nd half of the 20th century Jiří Novotný thus mentions territorial development crossing the boundaries of the then compact city as early as the 1950s (Novotný 2002, p. 44). The situation was solved by panel houses and housing estates.

(uncontrolled occupation of valuable land in the hinterland of towns) it is necessary to set new spatial constraints of their decision-making especially in large metropolises. And in the future, it is necessary to be prepared at national level to do this over and over again as the situation evolves.

Economic governance barriers

These are all obligations and rules of proper management of the municipality, statutory property management, the obligation to approve the annual budget of the municipality, drawing up reports on budget implementation, approval of the final budget, but also, for example, approval of the medium-term budgetary outlook. These include also the statutory rules of management of public limited liability companies and contributory organizations, as well as the obligations and particulars of tendering, selection of tenderers and approval of the results of tenders. From the point of view of the decision-making process itself on further development of the city, however, the most important barrier is the limitation of its financial resources.

In the Czech Republic, municipalities receive funds from the so-called shared taxes. All the taxes collected are divided by the state based on the Act on Budgetary Determination of Taxes[292] using the size category coefficients set out therein, between regions and municipalities (towns), partly areally in solidarity and partly "meritoriously", in particular by population[293]. The past few reforms of this system have always been a modification of the previous system so that, with minor exceptions, the towns and municipalities would still receive roughly the same[294]. A certain added value of this Czech system is the long-term stability of municipal incomes – towns and municipalities "breathe" with the economic cycles of the state. The disadvantage is almost zero appreciation of good self-governments and their motivation. In today's system, the city may increase its income essentially only by a real estate tax, but it is not a major source of income, especially for large cities. By increasing fees for dogs, accommodation and more, which is not a very attractive policy. By collecting fees for slot machines and gaming machines, which is to some extent rather a negative phenomenon for the city. And also by collecting fines for violating the traffic rules, which, however, often means harassing drivers for this purpose. A separate chapter is then European subsidies, which in turn distort the market. One of the few other earning opportunities of the city, which does not bring with it the negative externalities described above,

[292] No. 243/2000 Coll.

[293] Peková, Pilný, Jetmar (2012)

[294] Blažek (2002)

is income from dividends and taxes of city firms (which are the income of the city), which, however, applies only to medium-sized and large cities[295]. And, of course, it is possible to increase the income of the city by increasing the number of its inhabitants, which we have described as a problem earlier – today in the Czech Republic, especially small municipalities are growing in the hinterland of large centers.Therefore, it is a suitable further procedure of the Czech state, while respecting the development processes, to make a certain "more flexible" system of tax redistribution so that its positive characteristic of certain stability and guarantee of minimum incomes of the municipality should not be harmed, but at the same time the evaluation of extraordinary performance of their administration should be strengthened as much as possible. The current system allows virtually no change, no development. Everything is too interrelated. People living in a city should have the right to pay more at the cost of, for example, improving the services of a transport company. And self-governments should have the chance to agree on this improvement directly with residents and to change city taxes specifically for this purpose. In New York, although it cannot be compared to any city in the Czech Republic, there is always a discussion every now and then about the increase in city taxes as a result of improving the functioning of the metro system[296]. Something as simply straightforward as this is basically unthinkable in the Czech environment.

[295] Benka (2019)

[296] Allen (2017)

Social governance barriers

These, or rather social-legal constraints, are based on the rights of the population, which are defined in the Czech Republic mainly by the Charter of Fundamental Rights and Freedoms[297]. However, their anchoring in Western civilization is transnational, because international associations – such as Amnesty International, Human Rights Watch, People in Need and others – play an important role in the defense and promotion of human rights worldwide. However, the list of rights granted to citizens varies from state to state. What is critically debated in one country – for example, the right to basic health care or education – may be commonplace in another and vice versa[298]. These social barriers play a key role for cities and their decision-making.

In the densely populated urbanized area, the public interest – that is, the local and time-limited dominance of the rights of the majority over the rights of the individual – is a more frequent friction surface in a densely populated urbanized

[297] Constitutional Act No. 2/1993 Coll. – Charter of Fundamental Rights and Freedoms

[298] The concept of a welfare state entails countless such rights (e.g. Wintr 2013).

area than in sparsely populated rural areas or in suburbs. For example, in building or spatial development, it should be right that in a small town or sparsely populated area, only a few neighbors are annoyed by a "taller" house while in a big city any abnormalities usually affect a large group of people (but not all, as is unfortunately in our country a custom). Perhaps the most illustrative example of this problem is the American rather than the European issue of the right to possess weapons. There is certainly a difference between defending your land in the countryside from the occasional intruders and threatening hundreds of people with a weapon in the cinema or in the square[299]. The solution of such social friction areas, which also have a significant impact on urban decision-making, is a never-ending social problem. It is a task for the judiciary and also the subject of a wide range of legal and political science disciplines[300].

This group of decision-making barriers includes all standards and laws related to the issue of ensuring health, safety and basic services to citizens. This basic support and protection of the population is provided either by special state units or within the delegated powers of the state administration. Unlike self-government, it performs only and exclusively what is entrusted to it by law[301]. Delegated powers of state administration in the Czech Republic are hierarchically organized from above – up to 5 levels: central state administration bodies (ministries), regional authorities (14), offices of municipalities with extended powers (205), offices of delegated municipalities (389) and municipalities with basic competence (6,258). The higher authority is superior to the lower in the hierarchy. A long-term trend is the gradual transfer of more and more competencies towards regions, cities and municipalities.

According to the catalog of the Ministry of the Interior in the Czech Republic, there are several hundreds of activities and duties in the delegated powers of state administration[302]. Among the most basic ones are, for example, population records, issuing travel and personal documents, driving licenses, technical licenses, trade licenses, arranging elections. However, they also include social security payments, socio-legal protection of children, care for the elderly and disabled, cadastre of real estate, broadly defined obligations in the areas of transport and environmental protection, animal protection, forest management and water management. Last but not least, also the duties of the municipality in the field of fire protection and emergency preparedness and others.

The delegated powers of the state administration cannot be replaced by any decision of the city. In general, we can say

299 Fareed Zakaria, advisor to former US President Barack Obama, commented on the problematic situation in the United States in the *Respekt* weekly (Zakaria 2013).

300 from many e.g. Sandel (2015) or Lévinas (1997)

301 On the contrary, self-government is entrusted with everything else that is not defined otherwise by laws. In particular, however, the municipality is in accordance with the Act on Municipalities 128/2000 Coll. in charge of matters which are in its interest and in the interest of its citizens, including meeting needs, i.e. housing, health protection and development, transport and communications, information needs, education and training, cultural development and the protection of public order. Its task is also to create conditions for the development of social, efficient and economical use of property, including its preservation and care, creation of budget and closing accounts, cooperation among municipalities, approval of the municipal development program, territorial and regulatory plan and others.

302 Available on the website of the Ministry of the Interior of the Czech Republic (Ministry of the Interior of the Czech Republic 2012).

that the state defines, directs, enforces and mainly controls the implementation of measures. However, it is true that cities (municipalities or regions) participate in activities delegated to the state administration, especially in terms of property and personnel.

This can be well illustrated on the example of education: the state determines the rules and obligations through the Education Act[303], decrees and government regulations imposing on municipalities the obligation to provide pre-school and school attendance, as well as the minimum average number of pupils per class, framework curriculum, etc. However, it is the city (municipality or region) that establishes, i.e. builds and operates the school, and also selects the director. (S)he can then be removed from office in case of serious errors. Their salaries and the salaries of teachers are a matter of the state, but the city may contribute to the employees beyond this in the form of rewards.

The situation is similar, although more complicated due to the issue of health insurance companies, in the case of health care, which for city decision-making entails, among other things, the responsibilities of providing emergency medical services, and carrying out its drug and alcohol policy.

However, this is not the case in all areas. For example, the area of security performed by the Police of the Czech Republic falls within the special competence of the state in the territory of towns and municipalities, but it does not participate in it in any way outside of a certain coordination of activities. However, towns and villages may establish the city police[304] on their territory within the legal boundaries.

And then there are also areas of public administration, in which cities participate by their decisions only in terms of personnel. For example, in order to protect the lives and property of the population, the state reserves the right to control compliance with technical standards and construction principles, which is primarily served by the Land Use Planning Act and Building Code (Building Act)[305], including implementing decrees and government regulations. The exercise of this power is entrusted to a network of building authorities, special building authorities and many other mandatory agendas carried out by various departments of municipalities or local authorities in towns and villages, whose directors, however, are selected by the city.

And, finally, there are also areas of public administration in which cities do not participate at all or in any way and neither can they. For example, regional (and also Prague) public health stations are established, managed and also paid directly by

303 No. 561/2004 Coll.

304 Act No. 553/1991 Coll. on municipal police

305 No. 183/2006 Coll.

the state, in this case the Ministry of Health, on the basis of the Public Health Protection Act[306].

[306] No. 258/2000 Coll.

The core areas and related governance boundaries are essentially similar for all cities. However, their more detailed breakdown or precise delimitation, in other words, the duties of administration and the objectives of good governance, already differ significantly from city to city. And again, it is true that the most important factor for this differentiation is the size of the given city. Of course, also with regard to the regional context, given in particular by the physical-geographical conditions, and the cultural context within the given state. Therefore, in the following chapters, in order to define good governance – in the description of all three elements of the city administration triad – we cannot avoid the need for at least the size specification of the given city. Good governance in the next section will therefore be defined already separately for large cities and separately for towns.

Part V
Good Governance of Big Cities

The administration of a big city and a small one differs mainly in the scope of administration.

Big cities are responsible for the entire region or state. People living in them have the same responsibility.

In a small town, the key value is the local community. In a big city it is maintaining a balance among the social, economic and environmental impacts of individual decisions.

Humanity and the planet can endure people living sparsely in small towns. However, metropolitan sprawl is unsustainable.

Big cities must not specialize in their development. Small towns, on the other hand, must specialize.

To practice good administration, big cities need more freedom in decision-making. World high achievers – Vienna and Singapore – pass even their own laws.

13. Basic differences in the governance of small and large cities

In the previous section, we described that city administration is a constant search for a balance between what the city wants, what it is skilled to do and what it can do. Ideally, in the pursuit of good governance, it would suffice if the inhabitants of the city always chose such a self-governing representative who would know their needs, understand the constraints of the city's development and would know also its history well. Thus, (s)he would know the city's earlier decisions, from which its current strengths and weaknesses come. However, this is possible in the real world, if at all, only in the smallest municipalities.

However, when, for example, in a city with a million inhabitants, each of the three basic areas of governance needs to be further subdivided, given their scale; when the total budget of the city within which priorities need to be set exceeds CZK 60 billion; when a city (e.g. Prague) influences and is thus responsible for the whole settlement system or at least its significant part; while it is also necessary to tackle, for example, more expensive housing, the increase in the number of cars in the absence of parking spaces, the elimination of old industrial burdens, the aging of the population and the gradual deterioration of dozens of housing estates, the importance of the concept of good city management takes on somewhat different dimensions.

However, both the mayor of a small town and the mayor of a city with a million inhabitants are "only" men, and councils or local authorities are also similar in number. The complexity of managing a large city therefore lies on the shoulders of administration. The friends of the mayor and the secretariat are not enough, it is necessary to have sufficiently qualified experts (and subordinate teams of people) with the abilities to use advanced tools of city administration.

The self-government, i.e. politicians, is always to a certain extent responsible for the level of officials. It may select the experts, planners and officials concerned, or replace them under certain conditions. Therefore, at least in part, it is true

that self-government can improve the city's administration, but it can also destroy it by imprudent decisions. And this is often the touchstone of good governance of a big city.

In small towns, good governance can be learned in practice, because it is not so difficult for the mayor to meet "all" residents and to balance the needs and possibilities of a given town relatively easily. In a small town, community development tools – communications, discussions, meetings with residents – are usually sufficient for joint action and town decisions. However, managing large cities divided into several control layers and using advanced sophisticated planning and modeling tools is different. In addition to the need for general knowledge, the mayors of large cities must be able to recognize the erudition of people in the city administration, i.e. they must be able to surround themselves with capable people and thus manage, among other things, the art of responsible personnel policy.

However, this is often not enough for the largest and most densely populated cities, leaders of settlement systems. Their administration also interferes with the decision-making limits of cities. Thus, to the third component of the triad of want–can–know, which we named the triad of city administration. No city will change the course of basic development processes, but large cities have more power and, above all, a greater need to change, for example, state laws, decrees or other subordinate standards.

In large cities, due to the high population density, non-linearities of development also appear first, which only subsequently and later penetrate into smaller cities as well. It is therefore the cities that are always affected by the delimited boundaries in the form of various state regulations first. Their good governance must therefore be able to overlap also to the state level and thus be able to "lobby" professionally and politically for changes in laws and standards in general and to help enforce them.

In support of them, it must be said that the greater degree of responsibility which the state generally refuses to recognize to these largest cities, they are able to fulfil by their strength and energy. Especially in the development of their own territory, Prague, Brno, Ostrava, Pilsen but also other large cities will always be able to manage their territories better than the state can, wishing to have uniform building code and regulations for small villages as well as a densely populated city. Large cities are able to pay for world architects and top international experts, urban or infrastructure engineers on any issue ranging from barrier-free environments to the

Characteristics of administration	A small town within the hierarchy of the settlement system	A big city with a million inhabitants, the leader of the settlement system
Main objectives of the administration	to increase the attractiveness of the city by deepening specialization, prevent its decline, maintain the city	to increase the importance of the city by preventing specialization, to lobby for the city in higher units, to initiate the emergence of new management tools and changes to existing decision-making limits, growth and progress of the city
Main tasks of the administration in the social field	to maintain minimally a stable population, support the belonging of the local community and activate it, listen to people	to maintain a balance between economic performance and population growth, do not hinder people in their local activities, listen to the city
Main tasks of the administration in the field of economics	to maintain a stable income of the city	to increase the city's income, to maintain economic growth and "overperformance" of the city, efficiently and profitably manage property, promote the city as a center of national or transnational tourism
Main tasks of administration in the spatial area	to connect with the core city and the surrounding area, to seek a broad consensus among the inhabitants regarding the use of the territory and its development	to increase the accessibility of the surrounding towns and villages, to increase the interconnectedness and connection of the town with the settlement system, to use economic savings from density, to prevent ghettoization and constantly improve the permeability of the town, to protect the environment
Security and resilience management	to ensure the security of lives and property, to ensure security based on the historical experience of the city	to increase the general resilience of the city and the settlement system against social, economic and ecological crises – to prepare and prevent non-linear developments, to secure lives and property – to calculate, analyze and invest regular expenditures, funds for security
Spatial and social responsibility and impacts of administration	for the city, i.e. in the range of inhabitants – the city	for the whole settlement system, i.e. in the range of the group of inhabitants – city – agglomeration – state
Definition of the optimal decision of the city	one that is in line with the opinion of the population and increases the quality of their lives	those that, on average, increase the quality of life of people living in a settlement system with a certain preference of inhabitants of a city
Management tools	community administration, discussion and sharing of information and intentions, individual projects, tried and tested solutions, prioritizing action over paperwork	expert planning, updating of plans (cyclic process), using Business Intelligence knowledge, innovative solutions, perform CIM – digital City Information Modeling, creation of digital twins of the city or city subsystems, use of augmented or virtual reality
Evaluation of the success of the administration and implemented measures	based on the satisfaction of the population	using performance indicators (KPI from English Key Performance Indicator)
Key players in good administration	inhabitants, (administration) self-government	representatives of participants in the development, administration, self-government, state representatives, experts and planners in specialized institutions or departments
Qualifying prerequisites for self-government	practice and local knowledge	management skills and human resources, knowledge of planning procedures, general education
Basic areas of administration	social – spatial – economic	countless areas – at least transport, infrastructure, finance, property, environment, education, healthcare, territorial development, culture, tourism and more
Main limits of administration	Economic and social	complexity of decision-making processes, system limits
Number of levels of administration	1	3
Number of control layers of the city-wide level of administration	1–2	3–4

TAB. 3 – The main differences between (good) administration of a small town and a big city, source: elaborated by the author

construction of skyscraper office centers. The planning institution of the capital city of Prague, assisting with the administration of its territory, has 220 employees and an annual budget of CZK 350 million[307], while the Department of Spatial Development of the Ministry for Regional Development, which sets the rules for the development of the entire country, has approximately 15 employees[308]. On the other hand, those who often need expert assistance are small towns and villages, but they rarely receive it.

Some of the biggest differences between the administration of a small town and a big city are shown in TAB. 3. However, it is neither an inventory of all differences, nor an inventory of all the activities and needs of the city. It is only a list of the main differences of administration between small towns firmly situated within the regional settlement system and a big city, a leader of the national settlement system, so in the case of the Czech Republic it is Prague with 1,250,000 inhabitants. The individual rows in the table are designed to describe good governance for the given city size.

Tab. 3 has intentionally only 2 columns for illustration, in fact it is a certain continuum. And it is certainly necessary to ask which of the columns is valid for medium-sized towns in the Czech Republic with between 50 and 100 thousand inhabitants. In most cases these are closer to small towns, only in certain areas they are affected by draft measures for large towns. The right column in the Czech Republic basically describes the situation only in the three largest cities – Prague, Brno and Ostrava. With the fact that in the case of the latter Ostrava it is currently rather a certain wish, but ultimately may also become the father of thought. Why even smaller and in the Czech Republic numerous towns with hundreds of thousands of inhabitants cannot be unequivocally ranked especially to the right column, requires explanation.

We already know that the common effort of all cities (not of their administration, whose aim is the balance in the triad of want–can–know) is to attract as many inhabitants and their activities as possible. That is, at best, active and qualified inhabitants, so that they could subsequently strengthen not only the size but also the importance and the attractive power of the city as much as possible. However, the way this effort is realized is very different in the leader in the hierarchy of the settlement system and in the small town.

Small towns within the hierarchy of an interconnected cooperative settlement system can only excel through its other social, spatial or economic specialization. These cities, in order to succeed, must seek to offer some relatively narrow inherent

[307] Institute of Planning and Development (2017)

[308] CSO (2018d)

uniqueness that sets them apart from otherwise very similar close competitors. For example, they create a more exceptional environment for recreation, or manage, improve and present their often few peculiarities, a local school, a church or, for example, an educational trail. They strive to be a unique place for students or for the life of families with children, especially if they are in the hinterland of a big city. And, of course, it should be added that this does not mean that they may lag behind in their other qualities. There is always a certain societal concern – for example, regarding the quality of housing or life in general – that needs to be more or less broadly fulfilled.

The leaders of the settlement system hierarchy, on the other hand, as engines of growth for the entire settlement system need to avoid the socio-economic specialization as much as possible. They need to offer the widest possible range of housing, use of free time and especially job opportunities. They need to have a little of everything and all at a very good level, because only in that way can they play the role as a leader of the settlement system well. They need to be able to connect with other settlement leaders through this non-specialization and to be the first through whom social, technical or other innovations pass within the diffusion processes into the settlement systems controlled by them.

A certain degree of specialization of the centers is evident in the Czech Republic already from the level of cities with hundreds of thousands of inhabitants and below. For example, Liberec has recently developed as an industrial city and, at the same time, as a winter sports center. Olomouc, throughout its millennium history gradually losing, slowly and step by step, on its former significance, is today mainly a university city. On the other hand, Prague and Brno are important centers of services, commerce, but also of industry, especially its management units. They are large agglomerations providing a wide range of different socio-economic activities.

Ostrava by its size should be a similar center, but due to historical consequences, especially the huge devastation of the environment as well as social structure in the recent past, is still waiting for its fundamental all-round development. Despite the basically successful transformation it has undergone over the past 20 years. Similarly, the latest analysis of the Settlement Structure of the Czech Republic, commissioned by the Ministry for Regional Development of the Czech Republic in 2017[309] and elaborated as a basis for the development of the Regional Development Strategy of the Czech Republic for 2021–2027 speaks in this spirit. In it the centers are divided into important ones and others, with

[309] Körner, Müller (2017)

Prague being further divided into a separate category of "exceptional" and, on the contrary, Ostrava is on the border of this category due to old structural problems to solve. However, it is always necessary to take into account also a certain future potential, which in turn is considerable in Ostrava. In 5 to 10 years, while maintaining the current pace of transformation, the chances of Ostrava's economic and population leap are much greater, even when compared to larger cities, i.e. Brno and Prague.

The city administration by its decisions has the task of fulfilling the direction of the city's decision-making given by its position in the settlement hierarchy. The above-mentioned different direction between the decision-making of large cities on the one hand and medium and small towns on the other is not just a little different but is essentially quite the opposite.

It is not right to understand it in such a way that small towns can specialize and big cities do not have to. The reality is more monochrome in this respect: Large cities, if they want to maintain the socio-economic performance of the entire settlement system they drive, must NOT specialize. Conversely, small centers, if they want to implement good governance, need to specialize and to a large extent they MUST. Large cities must make every effort to promote the diversification of their human activities as much as possible, while small towns, while pursuing the same goal, must endeavor to support a certain narrow and specific area of activities in which they can achieve uniqueness at least in their immediate vicinity.

The degree of this specialization is very closely related to aspects of the already previously mentioned resilience. Successful, healthy and significant people, supported from many sides, will usually get out of problem situations faster and easier than the unsuccessful, poor, sick and dependent on one single source. This popular pun has already received wider attention in the area of resilience and the resulting benefits (FIG. 26). The greater the specialization, the lower the resilience to crises and non-linearities of development in the future. Successful people are the last to fall to their knees in crises and the first to recover from the crisis, usually even strengthened. Non-specialization in at least the leader of the settlement system hierarchy, with which the socio-economic performance of the entire interconnected settlement system grows but also falls, is therefore crucial.

The situation is becoming increasingly difficult for leaders of national settlement systems in an ever-shrinking world and an interconnected global settlement system. Specialization pressures are getting stronger. In the Czech Republic

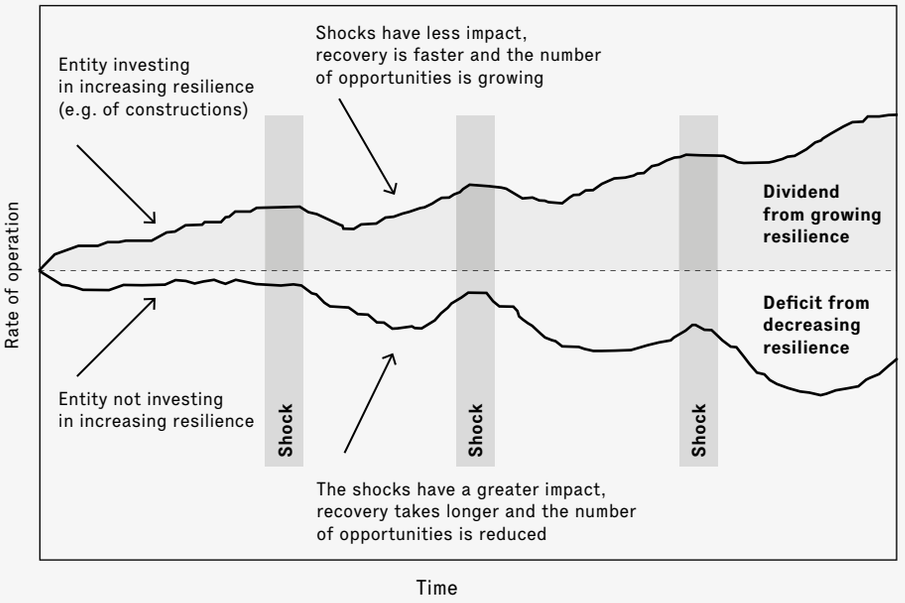


FIG. 26 – Dividend resulting from actively resolved system resilience, source: Rodin (2014)

in the case of Prague, a manifestation of such a threat to the future is, for example, tourism which, if left to its own uncontrolled development, will lead to a gradual linking up of a large number of socio-economic activities to this segment of sectoral activities. Conversely, turning it into an opportunity – i.e. transforming the now prevalent social, shopping or cognitive tourism into at least culturally cognitive, professional or, in the best case, congress tourism – is a major challenge for city administration[310].

For any future Prague self-government, but also for members of the Parliament of the Czech Republic creating laws and other rules of the game according to which cities, including Prague, develop, it is necessary to emphasize that every single organic system – i.e. both city and man – naturally seeks its uniqueness in its own activity.

However, at the same time, also this uniqueness itself attracts each system, adding meaning to its existence and action. In other words, in the shrinking world, even a city as large as Prague is being pushed towards specialization as well as drawn to it from the outside environment. All the more so as time, society and technology evolve. Thus, the inactivity and late decision-making of self-government, supported by the state by constantly tightening the constraints for city

[310] The 2016 update of the Strategic Plan of the Capital City of Prague pays attention to the need for so-called cultural tourism, i.e. offering an authentic experience instead of adapting the cultural offer. Furthermore, support for congress and exhibition tourism and other activities with higher added value (Duškov 2016).

decision-making, is usually the fastest way towards future specialization. In the case of Prague, it is therefore really necessary to avoid this as much as possible in order to maintain the competitiveness of the whole Czech Republic.

The above-described different decision-making goals of a large city and small town that its self-government fulfills are always reflected in all areas of city administration. We will describe them again in the basic division into three areas: social, spatial and economic which arises from both of them.

In the social field, there is an apparent distinction between supporting as many social activities as possible in large cities, i.e. not limiting the spontaneity of the population or groups, and the effort of administration of small towns to induce and support local community-supporting activities. This is also closely related to the extent of the responsibility of the city administration and the extent of the impact of their decisions.

The settlement system leaders are responsible for the performance of the whole settlement system, or at least a large part of it. They provide service functions for other cities in their influence, but they also define and shape the culture of the given area, which is a consequence of the non-linearities of social development always beginning in them. Unlike small towns, they can afford to finance absolutely unthinkable investment projects in less populated areas, such as theaters, museums, libraries, planetariums, cultural and concert halls, zoos, large hospitals and other types of civic amenities neglected by the private sector. They can invest independently also in research and help universities in their territory[311].

However, all of these projects are – with a few exceptions from the narrow, i.e. only financial, point of view of their founder – unprofitable. Their importance and benefit, however, lies precisely in the society-wide benefit[312].

In the first part, we mentioned in this sense several times the results of long-term research by American physicist and biologist G. West demonstrating that the savings ratio based on population concentration in a larger city is manifested as a socio-economic-cultural benefit of these cities. By their decisions and behavior, the administration of large cities and, after all, also their residents are therefore partly responsible for a larger territorial unit, as opposed to the administration of a small town that, above all, cares for the satisfaction of its own inhabitants. We have already said that in the largest cities issues of the whole world are solved. In Prague, cultural and educational institutions should focus on the issue of the entire Czech Republic, Ostrava should focus on the Moravian-Silesian Region, Silesia or North Moravia, etc.

311 In this respect, they are most often mentioned today as the most progressive biochemical, nanotechnological and (geo) information technologies.

312 A research co-funded by the City Library of Prague conducted in the middle of the second decade of the 21st century showed that each library visit means savings on average of CZK 742 per reader and the overall efficiency of library services is 5,412. In other words, for every Koruna spent on the operation of the library, a benefit exceeding CZK 5 is achieved (Stejskal, Hájek, Řehák 2016). These five Korunas, however, do not return to the box office of the founder of the library, i.e. to the capital city of Prague, but remain "dispersed" in society.

In the area of space, in large cities, the objective of governance must be to maximize the use of the territorial reserves within their territory, to choose such urban development structure that brings the most savings in subsequent maintenance and investment expenditures[313]. Thus, the use of apartment buildings instead of loose urban sprawl, promoting the growth of the city to the height, intensification of economies of scale, support of further economic development and, on the contrary, not burdening the environment, which in modern times most corresponds to the creation of the aforementioned city of short distances.

It is therefore necessary to make the city accessible to pedestrians. To ensure as much spatial and social fluidity of the city as possible[314]. Unused development can be revived by new activities in its vicinity, as the affected areas are not able to help themselves, but they can be newly developed by their connection or proximity to the vivid areas[315].

Such tasks are so complex in the case of large transformation and development zones that large cities are building their own urban development companies for this purpose – e.g. the London Development Agency (LDA) in the capital of Great Britain, in the Danish Copenhagen e.g. Copenhagen City & Port Development Corporation (CPH), and many others in other cities. Or at least for individual territories they form project consortia[316]. In the Czech Republic, these are used sporadically so far, which is mainly due to the fact that most Czech towns no longer own any land suitable for development on their territory these days and – unfortunately, this is necessary to admit – do not have the necessary know-how and motivation to carry out their own urban development. In many respects, however, it would be appropriate for especially large Czech cities to establish such companies. Among other things, also that the public administration itself would have to go through the same process that investors have to go through for each individual construction project, which would significantly speed up the transformation of outdated legislation.

And, conversely, in the case of small towns, in spatial terms, this means weighing the opinions of local people in every development of the territory, even if the economic and ecological nature of change is partially delayed. In other words: both the planet and the Czech Republic will endure if a few people move into a family house with a garden on the outskirts of a small town instead of a two-story house around a small town square, if this bothers less the local community and community belonging. And conversely, from the economic and environmental point of view, it is a serious problem if tens

313 Architect Janák (1929) dealt with the relation of the efficiency of dense housing as early as the 1930s.

314 Gabal, Hudeček, Hlaváček (2018)

315 Architect Camillo Sitte used a simile in this sense – the living is to be preserved, the inanimate must be solved in the same way as tree branches (Sitte 2012). Hall, Markusen (eds.) (1985) show on the example of new technology sites never completely covering the territory of old industrial sites, that the new will never arise directly on the site of the old, but somewhere nearby, and only then also the old will be revived. An example of such a development can be Karolina in Ostrava.

316 Thus, for example, the city of Amsterdam formed the Eastern Harbor District project group at the end of the last century whose task was to plan and "develop" a part of the city – Eastern Harbor District (Abrahamse, Buurman, Hulsman et al. 2006).

of thousands of new residents will settle in a distant suburban zone formed by an urban sprawl instead of Prague's Holešovice, located almost in the city center.

In economic terms, the objectives of a small town administration should be characterized by an effort to stabilize the income of the town based on at least a non-declining population and the collection of taxes derived from them, while large cities should strive to achieve the maximum economic performance of the city. Large cities generate a larger share of GDP per capita than small towns – a quarter of the GDP[317] of the Czech Republic is thus created in Prague – and even its slight increase has a multiplier effect on all inhabitants in the Czech Republic than in the case of a small town. In terms of Czech GDP, an inhabitant of Prague is more efficient, productive and therefore also more economically beneficial and valuable to our country than an inhabitant of Kotěhůlky.

Large cities have much more and also more valuable assets. Therefore, they own and operate joint-stock management, energy, infrastructure, transport, waste, but also cultural companies, which can provide management and social activities even for much larger territories – and taxes on their profits are the city's income. The great influence and benefits of tourism probably need not be mentioned.

The different management objectives of cities and towns of different sizes, which we have outlined in all three basic areas of governance, are also very closely linked to decision-making limits. Even those are significantly different for small towns and large cities, or significant and less significant. This is most obvious in the economic field. While the administration of a small town fights most with the economic limits that are given by its small and often only for routine maintenance sufficient budget, the administration of a large city has more possibilities to increase resources as well as more variants of their allocation. Similarly, social and spatial differences could also be sought.

However, what is important, is the essence of this "otherness" of the meaning of the described boundaries. The creation of laws or generally uniform rules at the state level has a unifying character. It applies to both Prague and a small village. This is to some extent the general principle of behavior of any system. However, if the unification effect is too strict in the laws and sub-legal norms and in the exercise of delegated powers of the state administration, problems accumulate in the largest cities and the smallest municipalities, i.e. at the ends of the size-density axis.

For example, in the area of spatial and construction development, Prague, due to its high population density and great

317 Czech Statistical Office (2016)

international importance, perceives a certain problem – for example, with housing construction, crime growth, people driving cars, and many others – always several years earlier than the second city in order of size and population density – Brno. Similar time spacing is then between Brno and other cities.

However, a sufficiently strong impulse to change the inappropriately set and not very flexible national legislation comes with the extension of the given problem to at least the level of the Czech cities with hundreds of thousands of inhabitants. And that is usually already too late, given the long approval deadlines for amendments to laws or even sub-legal standards. Prague has to wait for the decision of the whole state usually for a long time. And, conversely, small municipalities feel the rapid development of legislation that they rightly consider unnecessary. According to Prague, the state decides extremely slowly, according to small municipalities extremely fast. In other words, the state is hurting large cities with its nationwide decision-making and does not help small municipalities.

In the case of education or healthcare, but also transport services, the problem is reversed – it is not a problem to cover the demand for good healthcare in a big city, haulers are profitable among large numbers of inhabitants, etc.

In terms of this principle, the decision-making in the Czech Republic is most facilitated by the administration of medium-sized towns, somewhere between 50,000 and 100,000 inhabitants. They are cities on a weighing scale, because roughly with the beginning of some of their problems, especially those related to population density, which, however, make up the majority, the potential constraints of their decision-making usually change.

Given the increasing differentiating of cities in terms of size and, in particular, importance as a result of the ongoing concentration process, it is clear that the pressure exerted on overly tight and unifying rules of urban decision-making will only grow. On the other hand, for the growth of Czech competitiveness it is appropriate to differentiate them as much as possible for different size groups of cities. It is not logical and not even possible for, for example, Prague to have the same territorial planning as the smallest municipality. It is not possible to stifle the development of Prague whose socio-economic potential is one of the main engines of the Czech economy. Therefore, it is necessary to leave sufficiently flexible barriers to their application for each newly passed law, decree or standard to be used by both densely populated urban areas and small rural villages. Or to approve or maintain area-specific rules[318].

318 As it is, for example, in the exceptional case of the Building Regulations, of which there are at least two types in the Czech Republic – for Prague and for the rest of the territory, i.e. today mainly to the detriment of the second largest and most densely populated and developed city in the Czech Republic, Brno.

Because the relationship of any state to its inhabitants is totally different in its deep essence from the relationship of the state to its towns. For a set of people, when assessing their bio-equipment (not assets), the Gaussian curve of normal distribution applies, while for cities the asymmetric frequency distribution applies. There are few big cities and many people live in each of them, while there are a lot of small ones. People are essentially all the same and it is the basis of humanism that everyone is given the same rights and therefore the same laws apply to them. However, cities are not the same, they differ in size and therefore unification of rules of conduct is not very suitable for them.

However, it is true that no city – even Prague – will help itself in this respect. Although Prague and the regions have a legislative initiative, they can submit bills to the Chamber of Deputies, but this does not change anything in the unification principle of approving new laws at the state level. There is a need for enlightened lawmakers, not ever "more perfect" but nationwide rules.

While the problem described above is inherent to all national settlement systems, there are few exceptions. These are cities which, by virtue of their demarcation, like for example federations, pass legislation for themselves. They do not wait for the state to approve the necessary rules for their own functioning. The state, as a rule, with the (logical) goal of unification of legislation throughout its own territory, essentially fights against its biggest cities. The most visible representatives of the close organic relationship between the city's own inhabitants and the city are in the vicinity, for example, Vienna or Hamburg, Berlin and Bremen. Vienna, in particular, has been ranked #1 in the ranking of Mercer International Quality Consultancy already for the 9th consecutive year[319], which, despite a number of objections to these benchmarks, can be considered already a fairly strong indicator of the city's success[320]. In the last 15 years, Vienna has grown by a fifth of its former size[321] and is far from fulfilling the visions of former city planners describing as an ideal city for life a city of a hundred or two hundred thousand inhabitants.

A completely independent – but non-European – chapter is one of the largest contemporary economies on the planet today, which is essentially the only major city-state today – Singapore. Singapore's economy is one of the largest in the world, despite the spatial smallness of the entire city-state. Singapore's population is also growing significantly. In 2000 there lived 4.1 million inhabitants, while today almost 5.5 million

319 Mercer (2018)

320 Extreme political stability also contributes to this – the last Mayor was changed there after long 23 years and the town hall has been dominated by the Social Democrats for an even greater number of years (e.g. Brož 2018).

321 World Population Review (2018a)

322 World Population Review (2018b)

323 Keay (2018)

324 Metz (2017) or Mawi (2018)

inhabitants[322]. Obviously, its (global) importance still greatly exceeds its population size.

Singapore is a certain prototype (or perhaps rather archetype) of a city-state, and as such, it gives some insight into the future of cities after cultural divisions or national borders may be even more surpassed and weakened. Not even one inhabitant of the sparsely populated territory – "peasant" – votes in it or participates in the administration in any way. Singapore's population density is over 6,000 inhabitants per km2, more than in any country in the world[323]. All of its inhabitants inhabit a densely populated urbanized area and are therefore collectively able to extremely limit certain aspects of freedom for themselves, which would be unthinkable in an ordinary European or American city. For example, it is possible to find in Singapore a ban on chewing gum on the streets, associating after 10 p.m., having cats, smoking, and a few similar ones[324], from the viewpoint of European cities almost bizarre constraints based on the fact that every act – be it throwing paper on the street or exuberant merriment – affects other people.

Although the success of these cities may not be related solely to their ability to make timely and good decisions, their long-term successful development says a lot about it. In other chapters, which will focus on the stratification and complexity of the administration and decision-making of cities in the Czech Republic, this issue will be even more obvious.

Good administration of a big city requires the stratification of the city's administration.

Self-governing strata – city districts – without well-defined relationships of superiority and subordination, are devastating for the city.

Only the mayors of very small towns can meet with all the residents.

Dividing cities into city districts makes sense in the Czech Republic only in the case of Prague, Brno and Ostrava.

The mayors of New York's boroughs with a combined two million inhabitants are hired managers for the Mayor of New York City.

The city must be responsible for development, strategy, transport, security and form the frameworks of other areas of administration. City districts have the task of maintaining their territory.

14. The stratification of the self-government of a big city

At the beginning of this chapter on the complexity of big city management, it is necessary to separate two basic aspects of this complexity, which at first glance may mistakenly seem to be similar and related. The first of these aspects is the number of self-governing layers and the second is the number of control layers in the city administration.

The number of self-governing layers indicates multiple levels of mayors and representative bodies of politicians. This means that there is a coexistence of one elected Mayor of the whole city and, at the same time, many other "small" mayors in territorially delimited city districts.

The number of control layers in the city administration means something completely different. It goes across these self-governing levels and is related to the ability of experts, planners or officials to cope with the complexity of the urban organism. First, we will focus on self-governing levels.

The historical growth of today's big cities all over the world, including Europe and the Czech Republic, was usually accompanied by a gradual connection of rural municipalities or residential areas to the rapidly growing cores of contemporary cities. Big cities are thus, with complete exceptions, always divided into certain historical units, originally organic separate units, but now already inseparable and – especially in those near the central part of the city – mostly unrecognizable parts of the city-wide organism.

It was not always the connection of these present-day city districts that was considered the right step from their point of view. Especially self-confident municipalities abounding in certain specifics or riches did not want to be connected to their larger neighbor. In the Czech Republic such examples can be Vítkovice[325] in Ostrava or also Vinohrady[326] in Prague, but also many others. Often, therefore, such interconnection entailed some concessions from both sides, often leaving some degree of autonomy and administration. Initial interconnections usually take place in a small number and with a very individual approach, however, with a growing city, connecting more and

[325] Korbelářová, Žáček, Kocierzová (2002)

[326] Státníková (2012)

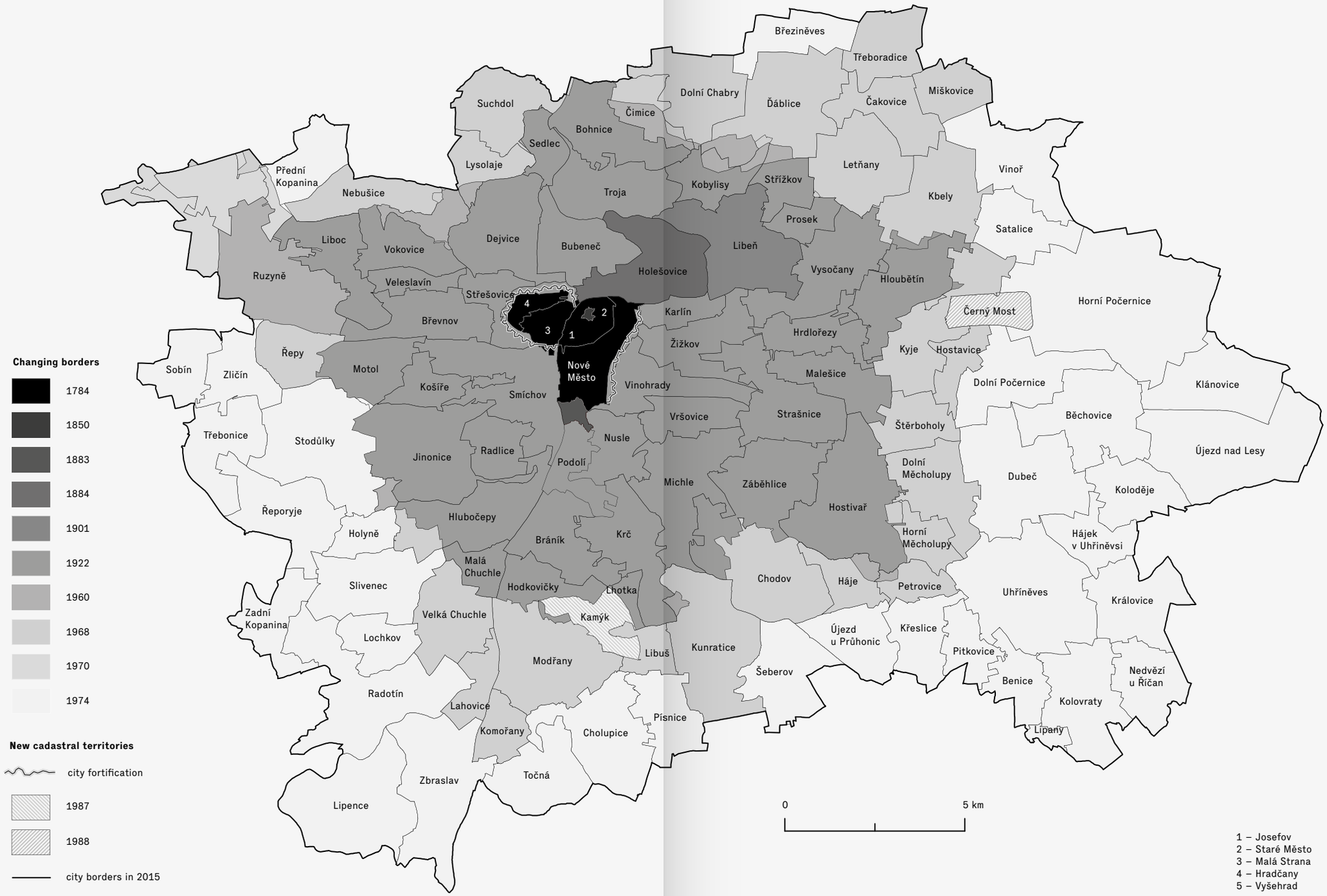


FIG. 27 – Territorial development of the capital city of Prague in the years 1784–2015, source: Jakešová, Kutilová, Poláková (2015), adapted

more surrounding villages and their transformation into urban areas is already happening in collective waves and free of individual actions. In the case of Prague, this is shown in FIG. 27.

The original set of individual municipalities, which were territorially adjacent, has gradually evolved into an organic whole. In various countries and in various cities, their administration has also been reformed differently with this development. All over the world, it is thus possible to observe different specifics of the city administration in various countries and mainly many different types of relations among the big city and its parts.

For example, the management of the administrative territory of New York City with ten million inhabitants is very centralized. New York is divided into only 5 boroughs, each with its own manager – deputy mayor. However, he is not elected, but is appointed by the sole elected Mayor of the whole city. In addition, there is a 51-member municipal parliament, elected in separate elections[327].

[327] New York City Council (2018)

The City of London is divided into 33 boroughs within the territory of the so-called Greater London with almost 9 million inhabitants. Each has its own elected council but can choose one of the three models of governance and adoption of resolutions. The internal 13 parts are smaller both in size and population. However, they all have between 150,000 and 300,000 inhabitants[328].

[328] London data store (2017)

The much smaller Prague is divided into 57 city districts, quite diverse in size, each with its mayor, council and board of representatives. The inner city districts are larger and more populous. Four of them have over 100,000 inhabitants, but many small suburbs have only a few hundred inhabitants. The entire city is managed by a 55-70 member board of representatives, council and Mayor[329].

[329] Act No. 491/2001 Coll. on elections to municipal councils

Comparable with Prague, regarding the number of inhabitants, is Dallas in Texas, although with its neighboring and nearby town of Forth Worth it creates an agglomeration with more than 7 million inhabitants, it has 14 administrative districts within which always one representative is elected. He, along with others and with one citywide elected Mayor, form the city council[330].

[330] City of Dallas (2018)

Examples could be continued further, as the territorial division of cities into parts or districts on which the multi-layered urban administration is based is regulated differently in each country. For the capital Central European cities similar to Prague the numbers of city districts are shown in TAB. 4.

On the territory of our country, there are cities that can regulate the administration in their territory by their own

City	Number of city districts
Vienna	23
Berlin	96
Prague	57
Budapest	23
Warsaw	18
Bratislava	17

TAB. 4 – Numbers of urban districts in major Central European cities, source: Trojan (2018)

decree and thus break down into self-governing districts or parts (these are synonyms) listed in the Municipalities Act[331]. Such cities are called statutory and the above-mentioned city decree is called city status. The change of the city to the statutory city is carried out by amending the law. These days, there are 26 statutory cities in the Czech Republic and also the capital city of Prague, which is similar to them, but its administration is governed by the Act on the Capital City of Prague[332].

[331] No. 128/2000 Coll.

[332] No. 131/2000 Coll.

The number of statutory cities in the Czech Republic has been gradually increasing over time as smaller towns have been successfully lobbying with the President of the Chamber of Deputies of the Czech Republic. Thus, on August 31, 2018, Třinec with only 35,000 inhabitants was declared so far the last statutory city in the Czech Republic on the basis of an amendment to the above-mentioned Act[333]. Statutory cities can be identified by the fact that their municipal authority is called the municipal council and the chairman of the city is called the mayor, so that if they use the possibility of division into districts, these authorities would be differentiated from municipal authorities and mayors of city districts.

[333] Denik.cz (2018)

Looking at the leaders of the global settlement system we have described above, it is clear that the division into a sufficiently and meaningfully large city district, i.e. having at least 50, but rather at least 150,000 inhabitants, makes sense in the Czech Republic essentially in only 3 cities – in Prague, Brno and Ostrava. After all, most statutory cities in the Czech Republic do not use division of their territory and administration[334].

[334] Only Prague and 6 other cities are divided, namely Ostrava, Ústí nad Labem, Pardubice, Liberec (however, there is only one district outside the rest of the territory), Brno and Opava (Bezděková 2012).

The effort not to divide the city into city districts, unless it is given by the strong history of the city, has, moreover, one very important reason in the Czech Republic. This is basically a certain mistake in the Municipalities Act or in the Capital City of Prague Act. The assembly of the whole city can, in accordance with the law, create city districts, establish their boundaries and, to a certain limited extent, also regulate the relations

among these districts and the whole city. However, it is also true that, basically, once established districts cannot be subsequently canceled, and therefore not even connected, since in such a case they would have to agree to this step themselves. The process of this intra-urban subsidiarity is enshrined in the Czech legislation only as a one-way ticket.

Looking at foreign cities, it is easy to see that even the world's major cities, both those with one million inhabitants and even of a larger order – megalopolises with 10 million inhabitants – are managed from only two levels. Only the level of city districts and city-wide level of administration can be found in them. This is particularly interesting when comparing Prague with one million inhabitants and, for example, London with ten million inhabitants or New York. It could seem that if one central elected self-government is sufficient for a city with 100,000 inhabitants and two for a city with a million inhabitants, then a city with ten million inhabitants should have even more self-governing (elected) levels. However, this is quite not the case.

The need for as few levels of self-government in any large city as possible is based on average human abilities and physical constraints. We usually choose our representatives to the elected bodies by two approaches – either we choose the most trustworthy and the most experienced of us, who we suppose will manage our community best, or we choose representatives of our "group" to promote their own interests. Sometimes both approaches may be closer and even meet in someone, sometimes it is less likely.

Due to our physical constraints, the Mayor of a city with a million inhabitants or a larger one cannot due to our physical limitations meet with all people, convince them of his intention, have long discussions with everyone, and try to implement his views in countless of his subsequent decisions. Therefore, the first of the two above-mentioned approaches is usually appropriate here. On the contrary, it is justifiable to choose people representing the local community in the vicinity of the inhabitants, i.e. in the city district or an urban district. Rather, to use the latter one of the possible approaches to choosing your own self-government representative in elections. But what to do if even the city districts are too large and thus there is natural pressure from below for some other form and level of self-government?

Such a need for closeness to people was realized at the turn of the millennium also by its administration extremely centralized New York. Its central city district Manhattan – with 1.6 million inhabitants at night and rising to more than 4 million

[335] Moss, Quing (2012)

[336] so-called Community Boards (New York City 2014)

people during the day[335] – is exceptional all over the world. Not even the Deputy Mayor for Manhattan, who, as we have already said, is a person appointed by the Mayor of New York, can physically meet with all residents. Therefore, the third – participatory – level was created[336]. In each of the 12 Manhattan districts, residents, property owners, associations and businesses can create local groups that are involved, among other things, also in multi-year public space maintenance contracts. This partial privatization of public power is based on the assumption of greater interest in the neighborhood of local and interested people, for whom higher real estate prices, more favorable renting of apartments and, for example, a better environment in front of the shop entrance are key factors.

Thus, New York is an example of an extremely centralized city administration, but it was able to respond also to the modern demand for some participation in public power. The city does this in a particularly convenient manner, which gives way to the natural activism of citizens and civic associations, and also enables active citizens to learn political craft and the ability to consider also the wider context of their actions in a gradual and non-violent way. It does not violate the aforementioned basic premise – it does not create other (elected) self-governing levels that cannot come into contact with citizens.

A case of the reverse procedure is rather worth mentioning. In London, unlike New York, the administration had been upward in the past. We have described the basic division of the territory of London into 33 self-governing (historical) boroughs. London entered the 19th century as the center of an agglomeration with 100,000 inhabitants. The urgent need to fight crime led already in 1829 to the establishment of the Greater London police district, a quarter century later the Metropolitan Public Works Authority began to take care of the engineering infrastructure, and in 1888 London County was established, covering a continually urbanized agglomeration over an area of 303 km^2. Further developments, which demonstrated the lack of effectiveness of the implemented reforms, led to the development of Abercrombie's Greater London Plan, which became the basis for the construction of satellite garden cities in the London hinterland. However, it was not until 1964 that the Greater London Council was established for an area of 1,604 km^2, essentially with today's 8 million inhabitants. However, for political reasons at the instigation of then Prime Minister Margaret Thatcher, this was abolished in 1986, after only 22 years.

The whole following period was interwoven with the establishment and then again cancellation of various development

Level of Administration	Activity and responsibilities
City	City development: strategy, security, transport, concepts and frameworks of individual areas of administration
City district	Maintenance of the territory part/district defined by the limits of the citywide administration
Local	Maintenance of public spaces

TAB. 5 – Levels of (self)government and their competencies, source: elaborated by the author

committees and advisory committees of individual territorial units. The abolition of the Greater London Authority eventually turned out to be a rather erroneous political step, and in 2000 the citywide level of government was re-established as the so-called Greater London Authority, headed by a directly elected Mayor. A certain paradox of the whole movement back and forth was the re-election of the same man to lead the renewed city-wide administration with a 14-year break, but now with a functional name as the Mayor, not the former city administrator – Ken Livingstone[337].

[337] BBC News (2000)

Since 2000, the exercise of the power of the renewed London-wide administration has been divided into two basic bodies – the directly elected Mayor and the London Assembly, which approves budget measures to the Mayor and his administrations. The administration of the whole London has been given responsibilities for strategic, territorial and economic development of the cities, police and security, fire brigade and public transport[338].

[338] Greater London Authority (2018)

Whether we follow the development from centralized city management to citizen participation as in New York, or from self-government of small neighborhoods toward central government, its abolition and re-establishment as in London, it is necessary to understand the nature of this stratification and to derive from it also the definition of competencies of individual levels of administration. To some extent, it is impossible for the Mayor of a whole city with one million or more inhabitants to fix every curb in the streets. However, it is also unthinkable that the local so-called NIMBY effect paralyzes the whole city. NIMBY – "Not In My Back Yard" – is an abbreviation originally describing the attitude of residents to, for example highways – everyone wants it, but no one in their own backyard. With increasing population density, it has become the essence of an activist approach against the intentions of higher units. Activism must be local, where it has its foundation, it cannot be city-wide[339]. And this is also true for larger geographic units – if we want to save the environment on planet Earth, we have

[339] This statement is also mentioned by Glaeser (2011), p. 262.

to stay close together in densely populated and developed cities. Thus, a local activist preventing construction is, from the deepest principle, the opposite of a truly environmentally based man.

The multilayered urban administration is justified in the fact that there is a close responsible elected person in local matters in which the residents have the opportunity to participate and that, at the same time, at citywide level, based on discussions with representatives of citizens, associations, companies, industry associations, professional chambers and other actors it is possible to better set the future development of the whole metropolis. The three levels of governance and their competencies can be described in broad terms, as shown in TAB. 5. However, and it is essential, it should always be true that in an organically functioning city, the central self-government in the spatial, but also social and economic development, must have a superior position vis-à-vis the self-governments of city districts. Of course, this does not mean the possibility of interfering with the human rights of individuals. Moreover, these are well enshrined in the laws and the Constitution of the Czech Republic. This means a comprehensive assessment of the development of the city in terms of its needs, which the self-governments of city districts cannot assess. This is precisely what the multilayered and robust city administration is all about. We will look into this issue in the next chapter.

Prague employs almost 60,000 people.

The bigger the city, the more complicated its administration must be, not political management.

The system of (non) separate self-government and delegated powers of state administration is unsuitable for big cities in the Czech Republic.

Large subsystems of the city must be managed by joint stock companies or contributory organizations.

A planning and conceptual institution is part of the good administration of a big city.

The future of city management is digital modeling: CIM – City Information Modelling.

15. Complexity of big city administration

The elected self-government in a large city is, in terms of the number of officials and its own decision-making ability, at a higher, but still relatively comparable level to the elected representatives in a small town. The Mayor of Prague is also only a man, just as the chairman of Kotěhůlky. The complexity of managing a large city therefore needs to be handled "within" a different control layer of the city. This chapter will therefore address the need for robust management and administration in a large city.

Let us first recall again what city administration actually is. It is the subconscious of the urban organism, the second highest control layer of the urban organism, through which information from the urban organism gets to the highest layer – self-government made up of politicians, that is, to the consciousness of the city. It is a layer made up of officials inside the municipal authority, which is interconnected with other parts of the city, even the security parts. It prepares documents for the resolution of the Mayor, council or assembly and after their approval it subsequently implements them within the defined limits and again re-informs the elected self-government. It is a layer that is influenced and often also directly created by the elected self-government.

Small municipalities need almost no administration if the mayor and residents work together to manage their territory and estates. Administration of a small town can be well performed by only a few part-time officials along with the mayor.

The situation is slightly different in medium-sized towns. On the one hand, in them it is still possible for the self-government to meet with at least the majority of the inhabitants of the town and to make corrections and make their decisions accordingly. On the other hand, it is no longer possible for the self-government to implement the agreed measures by themselves. The administration of medium-sized towns must therefore have a larger body of officials and several managers. However, those sometimes come and go with elected representation. These transitory officials and managers can come and go

without causing a significant threat to the city's intentions and development.

However, large cities are completely different. Their administration consists of a group of employees consisting of many thousands of individuals extremely diverse with their expertise. We have already described that, for example, as of December 31, 2017, the capital city of Prague employed almost 60,000 people; recalculated for workloads, this figure is slightly lower, as shown in TAB. 6.

For the day-to-day running of a big city, administration is more important than political representation. It is the same as in man where more subconsciousness than consciousness is needed for the basic functions of our body. Letting a traffic control center, police, firefighters, office clerks, IT services administrators, city budget administrators or even designers or planners disappear would very quickly turn the territory of a large city into a war zone. We do not realize it too much, but the fact that a big city somehow works is miraculous. It is not commonplace at all, and it is because of the extremely complex tangle of working relationships among officials, managers, engineers, experts, security forces and many others. Only in the long-term successful development of a large city, when high-quality elected self-governments take turns over the functioning administration of the city, can their positive influence and quality work be seen.

The larger the city, the more complex the structure of its administration. Even in the offices of cites with millions of inhabitants, more than a four-level hierarchical staff structure is not used as a rule (FIG. 28). These levels using the example of the capital city of Prague usually consist of:

1. employees, officers, with an average gross monthly salary[340] in the amount of CZK 20,000–25,000
2. departments, usually with 5-20 employees, but sometimes many more, headed by the head of the department (middle management) with an average gross monthly salary in the amount of CZK 33,000-38,000
3. departments, usually consisting of several departments headed by the head or director of the department (senior management), with an average gross monthly salary in the amount of CZK 50,000–55,000
4. management of the municipality with the director of the municipality, which is sometimes divided into sections, headed by deputy directors (executive management), with an average gross monthly salary in the amount of CZK 70,000-80,000.

[340] These are approximate values (without remuneration) valid in 2014, which the author gained during his practice in the Prague City Council. Until 2018, these basic salaries without personal remuneration and bonuses increased by approx. CZK 2,000 – CZK 5,000 depending on the management level.

Although all employees of the municipality (in Prague and statutory cities) or the municipal office (in cities and city districts) form the administration of the city, not all of them are subordinate to self-government. This is because cities are organisms usually developed within states, and it is precisely these which, in order to maintain certain uniformity of certain rules throughout their territory, perform part of the administration, already mentioned in one of the preceding chapters, the so-called delegated powers of state administration. As a rule, this is the most necessary part of the public administration to ensure the safety and security of the population and property: public order by the police, population and business records, basic environmental protection, sanitary limits, building standards and traffic regulations, school and other inspections – this is only a brief list of activities in the delegated powers of the state administration as established in the Czech Republic.

The division of the performance of public administration into self-government and state administration can be found in virtually all countries close to the Czech Republic – e.g. Austria, France, Germany, Slovakia and others. However, the situation in the Czech Republic is very specific; indeed, it is rather problematic from the point of view of the organic functioning of cities, especially because:

- Employees of state administration and self-government are based in the same house, they often work in the same department, and often they are double employees partly paid by the city and executing autonomous agendas and partly by the state and solving the delegated powers of the state administration. At the same time, "state administration" officials should not come into contact with the political representation and be subject to it in any way. A separate chapter in this respect is directly the director of the municipality or the secretary of the municipal office, who is the highest representative of the delegated powers of state administration and also of self-government.
- The selection of employees – even those of state administration – is carried out under the responsibility of the political representatives. Quite often, therefore, the municipal authorities in the Czech Republic experience frequently unreasonable decimation of their clerical body by political representation. Politicians get rid of the disloyal clerical administration or even the management of the security forces and put their political colleagues in their place. After the elections, the situation repeats

	Organization	Number of employees
Offices	Prague City Hall	2.064
	CD Prague 1	320
	CD Prague 2	212
	CD Prague 3	252
	CD Prague 4	358
	CD Prague 5	293
	CD Prague 6	318
	CD Prague 7	206
	CD Prague 8	335
	CD Prague 9	165
	CD Prague 10	395
	CD Prague 11	215
	CD Prague 12	219
	CD Prague 13	231
	CD Prague 14	170
	CD Prague 15	157
	CD Prague 16	70
	CD Prague 17	103
	CD Prague 18	96
	CD Prague 19	62
	CD Prague 20	126
	CD Prague 21	71
	CD Prague 22	90
	Other city districts (23-57) total	343
Joint stock companies owned by the capital city of Prague, including their daughters and granddaughters (employees calculated according to the property share of the city)	Transport company of the capital city of Prague, joint-stock company incl. daughters	11.179
	Collectors Prague, PLC	119
	Congress Center Prague, PLC	107
	Municipal House, PLC	40
	ICT operator, PLC	69
	PPF Bank, PLC	15
	Prague Energy Holding, PLC incl. daughters and granddaughters	1.187
	Prague Gas Holding, PLC incl. daughters and granddaughters	859
	Prague Water Management Company, PLC	109
	Prague Services, PLC incl. daughters	1.589
	PVA, PLC	0
	Technical Administration of Roads of the CCP, PLC	364
	TCP Vinohrady, PLC (since 2018 – Technologies of the Capital City of Prague, PLC)	0
	TRADE CENTRE PRAHA, PLC	54
	Želivka Water treatment plant, PLC incl. daughters	70
	Prague Exhibition Grounds, PLC	0
	Káraný Source of drinking water, PLC incl. daughters	0

Contributory organizations of the city and city districts	Institute of Development Planning of the Capital City of Prague	217
	Zoological Garden of the Capital City of Prague	214
	Botanical Garden of the Capital City of Prague	93
	Forests of the Capital City of Prague	193
	ROPID	72
	TSK	4
	Medical rescue service of the Capital City of Prague	475
	Hospitals, homes and social services established by the city – total	3.091
	Center for Social Services Prague	182
	Municipal Library in Prague	432
	Theaters established by the Capital City of Prague – total	750
	Prague Symphony Orchestra FOK	131
	Museum of the Capital City of Prague	140
	Gallery of the Capital City of Prague	59
	Observatory and Planetarium of the Capital City of Prague	29
	Vyšehrad National Cultural Monument	19
	Prague Information Service	61
	Administration of Services of the Capital City of Prague	305
	Administration of Prague Cemeteries	176
	Schools and school facilities established by the city – total	9.309
	Schools and school facilities established by city districts – total	16.147
Other	Municipal Police of the Capital City of Prague	2.236
Total		**56.963**

TAB. 6 – Numbers of employees of the capital city of Prague as at 31 December 2017, source: Prague City Hall, Budget Department (2018)

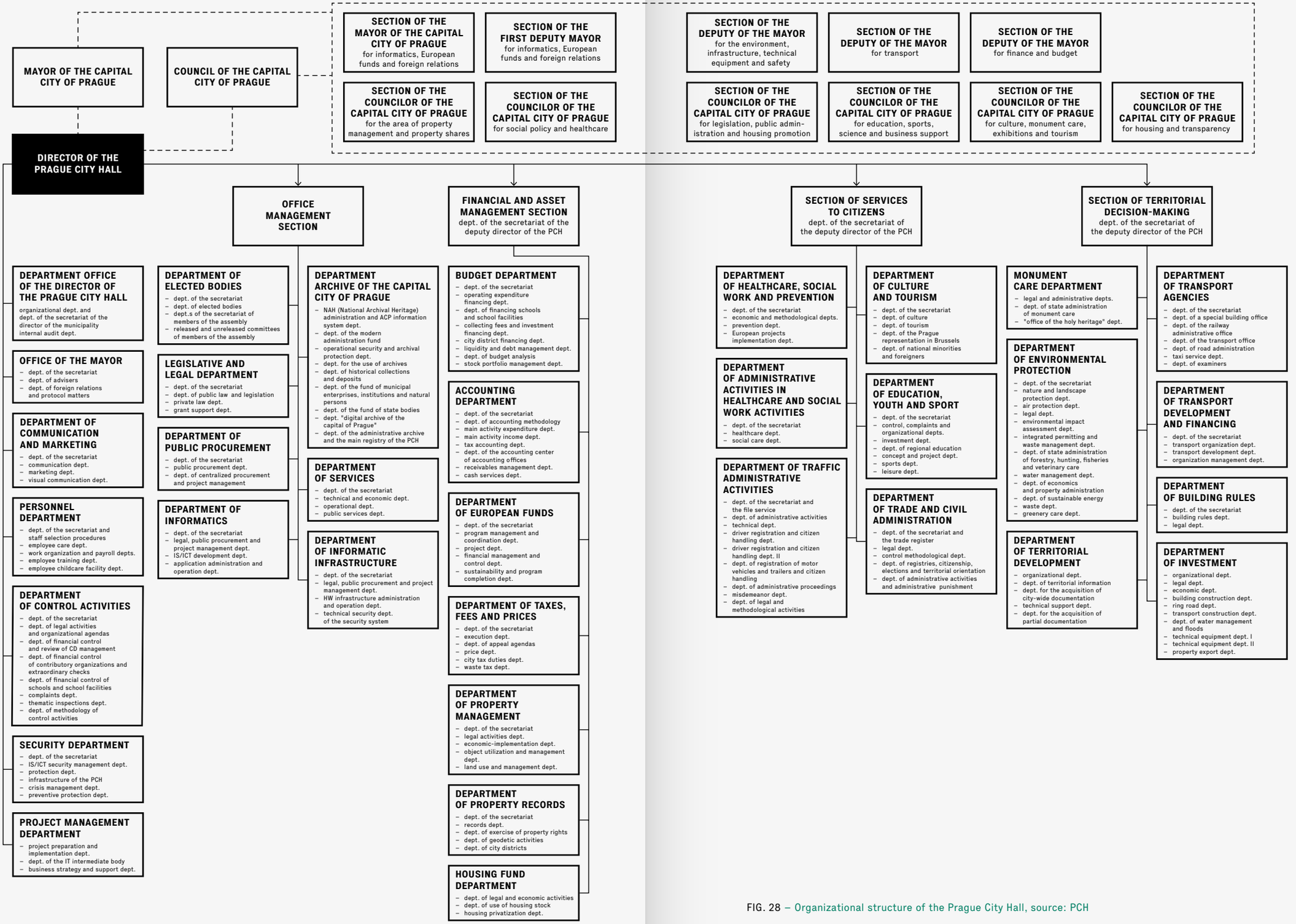


FIG. 28 – Organizational structure of the Prague City Hall, source: PCH

itself, and in fact, quite justifiably, because such persons often lack the necessary expertise and political independence. The bureaucratic apparatus of cities was partially protected against the will of politicians in the Czech Republic in 2002 by passing the Act on Officials of Territorial Self-Government Units[341]. Just before the passing of this law, which made the dismissal of the director of the department conditional on serious circumstances, the then Mayor of Prague announced tenders for all existing directors of departments of the Prague City Hall, which is not possible today anymore. On the other hand, it is understandable that any elected Mayor or member of the city council should be able to form their closest team of collaborators. There is no single right solution, but it should be true that, for example, the more civil servants are protected, the more the state should ensure their professionalism, for example through national civil servant schools, which, however, is not the case in the Czech Republic.

- The Mayor or chairman does not have formally independently subordinated one single employee. Even his secretariat is subject to his secretary / director in the office / municipality structure. And only he is truly formally subordinate to political representation. All directors or department heads are then subordinated to this person. Therefore, all the actions that the self-government wants to take in the Czech Republic should be done through resolutions addressed to the director of the office, which is obviously difficult to carry out in practice. The informal relationships among political representation and officials are therefore the key to the functioning of the office. Unfortunately, sometimes it is true that the more polite and ethical the political representation is, the fewer things it manages to enforce in office and vice versa.
- The division of competencies into state administration and self-government is often illogical, or not very functional. The structure of the municipality is decided by the political representation, the state through law only obliges cities, municipalities or regions to exercise the delegated powers of state administration. Whether, for example, Prague will have more than one building authority or more authorities, whether these will be under the same department and thus the same official as special building authorities or not, is all up to the political representation. Similarly, "to the advantage of" any party, state administration care of monuments, traffic administration agendas and other areas can be taken care of.

341 No. 312/2002 Coll.

From the above-mentioned facts it is clear that the system of "separate" performance of public administration to the top-down hierarchically controlled state administration and the from bottom-up elected self-government in the Czech Republic is full of paradoxes. The premise that elected political representatives should not interfere with the delegated powers of the state administration is in fact distorted to the worst possible scenario. In fact, this can be done very easily and yet, on the contrary, in practice, the worst possible situation occurs.

On the one hand, in the case of large cities and especially in Prague, politicians are partly co-responsible for almost everything that happens in the city, but their powers to change things are relatively limited. And, on the other hand, the little that the "political" representation needs to arrange is easily enforced. And it quite easily hides under the responsibility of the state administration.

However, even in the absence of ulterior motives of politicians, the division of the performance of public administration in the Czech Republic in many areas complicates good city governance and sometimes makes it even impossible. Conversely, it does not simplify it in virtually any area. A typical example is the never-ending and rather intensifying discussions about urban noise – which is somewhat peculiar regarding noise induced, for example, by trams. Although hygienic stations correctly speak into noise limits with their norms (although in the past very bizarre, assessing for example noise particularly in front of the facade), the city, for which trams are a key means of transport – by far the best – can no longer speak into them (except for the far more expensive metro) for solving many other problems and also sanitary limits. Housing construction in block buildings – therefore "downtown" – cannot be built for this reason these days (FIG. 29). The decision of the Constitutional Court of the Czech Republic from the turn of 2018 and 2019 stating that we have to get used to a certain level of noise, if only partially, because modern society cannot function without it, is at least a bit groundbreaking and addressing the same problem in this respect[342].

The Czech system of public administration and the separate exercise of its power without an obligation to communicate is a somewhat special system and it is questionable whether the Czech Republic is facing a major reform of the public administration system. And we can only hope that if this happens, it will mean, in the case of cities, a shift in their

342 Pokorný (2019)

FIG. 29 – Visual expression of the real impossibility of building a block structure according to today's standards and legislation in the Czech Republic, source: IPD, communication office

administration towards greater powers, but also a responsibility of self-government, and not towards still greater collective irresponsibility of everyone across all offices.

However, whether the development in the Czech Republic moves one way or the other, the municipalities and municipal authorities will retain the hierarchical structure which we have described above. It has its indisputable advantages, but also disadvantages. Perhaps surprisingly, the problem of election cycles may be one of the largest.

For the exercise of elected self-government working in the Czech Republic on the basis of a four-year parliamentary term, management using project management methods is more suitable than the hierarchical structure of the Office. Politicians need to demonstrate the results of their work within their time in office. However, this requires leaders of projects, project managers, to spread their responsibilities across the hierarchical structure of the office[343]. But they are not ready for it. As a rule, union directors do not feel like they are placed lower than project managers. The rigid hierarchical structure of most municipalities and municipal authorities in the Czech Republic is difficult to cope with both vertical and horizontal division of labor and shared responsibilities.

The electoral system in the Czech Republic, the indirect election of chairmen and mayors, as a result of which each member of the city council has his own defined competencies and responsibilities, does not contribute much to this. Within

[343] Bendová (2018)

the defined responsibilities, he informally assigns the director of the relevant department – without being formally subordinate to him. This leads to a dysfunctional situation where, in terms of working for "their" councilor, union directors are something like project managers, but not from the perspective of other councilors or union directors[344].

Therefore, where possible, large urban subsystems – such as the water supply, sewage, generally technical and transport infrastructure, but also a large number of cultural, educational or other social institutions – are managed separately by separate organizations, joint-stock or contributory organizations[345]. Joint-stock companies in municipal or regional ownership are for example Pražská plynárenská, Ostrava or Brno waterworks and sewage systems, etc. Contributory organizations are usually zoological or botanical gardens, cultural centers, schools or social facilities.

The basic difference between a contributory organization and a joint-stock company relates to the purpose – generating or not generating profit. In general, joint stock companies are normally set up for earnings. Municipal public limited companies are then a bit different from private public limited companies. Their profits and goals are influenced by the political assignment and by running a public service.

Joint-stock companies have their own assets, which they manage, and which were entrusted to them under the Deed of Foundation. After their establishment, the city can no longer contribute to their management – of course, apart from the increase in share capital, as well as the exceptions in the form of so-called public service compensation, which are listed in the Public Procurement Act[346] (passenger transport, road repairs, waste collection) on their management.

Contributory organizations, on the other hand, are basically unions of the city council. Contributory organizations manage directly the property of the city. They do not own any, they are only entrusted with it from the city. However, they have independent management and usually also reside in a building detached from the municipality. Their budget and means of management are entirely dependent on the decisions of the city council or the assembly. It might therefore seem more convenient for the city to set up contributory organizations instead of joint-stock organizations. But the reality is different.

Contributory organizations are subject to the municipal authority's internal personnel regulations, unlike public limited companies, which in other words means that their employees' salaries are low and uncompetitive to salaries at an appropriate level of private enterprise. If a city wants quality

[344] And if the agenda is in the hands of several coalition parties, the fragmentation of administration is extreme – for example, the city's assets are not subject to territorial development, education does not follow culture, etc.

[345] The economic activities of towns in the Czech Republic are elaborated in detail e.g. by Toth et al. (2014).

[346] No. 134/2016 Coll.

management to manage its assets, it is preferable to employ such people in joint stock companies.

Cities can co-own joint-stock companies with the private sector, but such companies not owned in 100% cannot receive work from the city directly in the so-called in-house form. Public limited companies owned by the city incompletely must tender for contracts together with other entities in the framework of tenders. Therefore, since the turn of the millennium, the efforts of cities in the Czech Republic to get all their services into exclusive ownership have been growing due to the rules set – which is somewhat unfortunate. Since 2013, Prague has been trying to create something similar to the municipal holding groups that have been operating in large cities in Germany[347].

A number of self-managed subsystems detached from the municipality – in Prague there are nearly two dozen joint stock companies and several hundred contributory organizations – their establishment, localization, functions, administration, operation and others, put extreme demands on the coordination of all these activities. Certainly, any such organization can, and in reality, usually has its own technical economic development department, but each action of these companies must be, moreover, coordinated also within the entire city. Even "just" repairs of technical infrastructure and repairs of transport infrastructure require a consistent timing of their repairs due to their daily load. This is often at the expense of their individual cost-effectiveness – the different lifetimes of different types of infrastructure require different repairs over time, but this is not only bad, but sometimes even impossible in the case of a busy street because of the functioning of the city.

Cities with a million and more inhabitants must therefore use advanced administration tools, to work with vast databases of geographic, economic and social data, and not only from their territory, but also from near and far. The collection of such data – e.g. on the movement of people, tourists, means of transport, infrastructure utilization, but also on the quality of housing and buildings in general, movements of capital or changes in demographic structure – may be carried out by relevant joint stock companies, contributory organizations, or departments of the municipality, but their analysis from a city-wide perspective must already be entrusted to another organization. They must be processed by a separate control layer of the city administration, the need for which increases with the size and also maturity of the city. For large cities to function properly in the long term, an expert, analytical and planning institution must be part of the second top control layer.

347 In big German cities, it is common that both energy and cleaning services, public transport and technical infrastructure, including water and sewage systems, are part of the municipal joint-stock company. There is, however, an ongoing intensive debate and research on the form and needs of such a public-private partnership – from many of them e.g. Wagner, Berlo (2017).

348 Department of Planning and Sustainability, the former Department of Physical Plannning and until 2003 Department of Urban Development (Feddes 2012).

349 Paris Urbanism Agency, in the French original: L'Atelier parisien d'urbanisme (APUR)

350 In fact, since the First Republic, Prague had some planning institution, even during the Protectorate in the course of World War II (Hořejš 2013).

351 Bratislava Metropolitan Institute, aktuality.sk (2019)

352 City Architect's Office

353 Metropolitan atelier of spatial planning and architecture

354 For the purposes of creating the Metropolitan Plan of Prague, such burdens were calculated using a multi-factor data analysis from a database owned by the Institute of Planning and Development (in detail in Koucký et al. 2014). However, CIM is based on on-line data modeling and as such it is not used in any Czech city yet.

355 So far, the latest such achievement is the publication called *Pražské veduty* (Prague vedutes) (Koucký (ed.) 2018), based on a three-dimensional model of the capital city of Prague and intended, among other things, for public discourse over current and future height regulation in the territory.

Previously, such a role, but especially in the context of the development of the territory, was played by the offices of the main city architect. However, the more advanced times and the increasing complexity of the city, the many links among the city and the actors of development, and at the same time between the city and its surroundings, increasingly require the expansion of these previously almost architectural studios with other segments of city administration. Vienna decided to follow the robust department within the municipality, department No. 18, named the Vienna City Planning Department. The same applies to Amsterdam, where the Development and Planning Department[348] is entrusted with this activity. In Paris, this activity is carried out by the Paris Urban Planning Agency[349] with 84 employees and a budget equivalent to CZK 250 million and it is interesting that another 26 organizations participate in its activities and therefore most of its budget is not provided by the city itself. Its director is the Deputy Mayor with responsibility for territorial development. In Prague, the Institute of Planning and Development of the Capital City of Prague (abbreviated as IPD) was established in 2013 as a successor organization of the City Development Unit[350]. It is a contributory organization with an annual budget of CZK 350 million with 220 employees. Today, however, other and even smaller cities are starting to establish similar institutions – such as Bratislava (MIB)[351], Brno (KAM)[352] or Ostrava (MAPPA)[353].

The main task of these organizations is to organize countless amounts of information arising from the complexity of the city, its interior and its surroundings into such a level of complexity that will be manageable for politicians and so that problems will be decidable. Their basic tools, which they use for their activities, are planning, modeling and newly also modeling of digital twins and utilization of augmented or virtual reality. Which can be collectively named as the so-called CIM (City Information Modeling). This is not to be understood as a "mere" three-dimensional mapping of urban area and urban development, but as an advanced tool for the functioning of the whole city, useful for example also for asset management or for modeling the potential burden of territory in planning its development[354]. However, apart from the rather embryonic attempts of the capital city of Prague[355], the creation of these urban digital twins has not yet developed in the Czech Republic. So, in the Czech Republic, it is not possible to talk about sophisticated Urban Digital Modeling so far.

The planning institution can to some extent be replaced also by the very close cooperation of the city with universities and research institutions in the given region. In particular, regional

and smaller centers, where such an economic-geographical or technical university is located, usually have no alternative because of the limited financial resources and similarly limited expertise of people in the region. However, this cooperation is conditioned by an extreme effort and understanding of mutual needs on both sides – both in the city administration, but also in the management of the university or research organization, which is still not very successful in Czech cities. The causes of this mutual misunderstanding must be sought on both sides – unfortunately also in the very different perception of the concept and the planning process. We will therefore focus on this issue in the next section of this book.

Part VI
Planning

Planning is a decision-making process that takes place during a calm period. It is an initiating activity that requires energy and concentration.

Planning is a decision – the regulation of future development.

It is not the whole but parts or elements of the system that plans, i.e. people and administrative units in the city.

Each system has a primary goal with which it was created in development. It is the extension of the existence of its parts, the preservation of its own existence.

Secondary goals are milestones on the path leading to the fulfillment of the primary goal.

Harmony between the primary goals of the whole and of the parts is common in nature. We need to actively look for it in people and cities.

The space for possible decisions to achieve the primary goal is limited by two strategies: internal transformation and growth. Internal transformation requires more effort.

In times of crises, we have great uncertainty about the future, but great certainty in our own decision-making. In times of calm, it is exactly the opposite.

We like neither absolute freedom, nor absolute order. We are looking for a balance between change and security.

Planning is our effort to establish certain order in an uncertain future. We plan because we are afraid of what is to come.

Planning means prioritizing future development options.

The order of activities according to the required effort is: non-planning – planning – having something planned – targeting.

16. Planning and strategy

These days, both in lay and expert language, planning generally denotes human activity, and thus a process during which a plan is made. And the plan is then a certain sequence of future actions or steps leading to some goal. However, the real meanings and especially the relationships of these terms are different.

A plan originally meant, at the turn of the 17th and 18th centuries, in perspective geometric representation a two-dimensional drawing of an object, i.e. in the case of the Earth's surface, a map[356]. And although with the development of increasingly accurate methods of mapping the Earth's surface and the emergence of a scientific discipline – called mathematical cartography – the meanings of the words "map" and "plan" have gradually separated from each other and partly have also transferred from space to time, the concept of a plan is still characterized by considerable proximity to the concept of a map.

However, the second key concept, planning, is not used to create a map in cartography – the science of imaging Earth and other cosmic bodies, and hence maps and plans. The process of creating a map is called creating or drawing a map or, in the case of creating original maps (what is now already very rarely occurring), also mapping[357]. The mapmaker is a cartographer, rarely also a mapper – a designation used only in orienteering as a sport discipline[358].

The term planning is used differently in relation to maps, for activities carried out with the finished map, such as route planning and transport lines. Obviously, the original relationship of the concepts of plan and planning is therefore in a reversed causal state than these terms are used in the common language today. The result of planning is not a plan, but some kind of movement can be planned only over the plan.

One, and the main of these movements in the past was also the advance of troops in the territory in fighting, wars and conflicts. And precisely because of the process proximity of the warfare and its preparation over the map, intertwining/confusing the terms plan, planning and another concept, which is

356 Harper (2018e)

357 Voženílek, Kaňok et al. (2011), pp. 14 and 20. Maps can generally be divided into original and derived maps. The derived ones arise from the original maps. For example, on the basis of the cadastral map formed by parcels a thematic map mapping development will arise, etc. Today, when maps are based on digital data, the division is already somewhat outdated. However, it is still true that only in the case of creating an original map – usually directly in the terrain by measuring and then plotting the measured values – the term mapping is used.

358 More about mapping in this sport discipline, where a cartographer still plays an important role, e.g. Kynčlová, Hudeček, Bláha (2009).

strategy, probably occurred in the past. Strategy refers to the temporal or factual sequence of steps and activities to achieve some usually long-term goal, and its meaning originally comes from the Greek strategos (stratos – army, agein – lead, move) indicating a general, in a devolved sense thus the art and abilities of the commander.[359].

[359] Harper (2018f)

The term plan thus gradually and somewhat inadequately partially lost its general, two-dimensional meaning and together with the similarly modified concept of planning entered into the formerly sovereign space of the concept of strategy, which makes it possible to distinguish countless kinds of plans and planning today – for example, personal, sports, corporate, state, security, war, urban, regional and many others, including project activities, further reinforcing the aforementioned errors in the meaning and, unfortunately, also misunderstanding planning as such. In principle, planning can always be just one for each unit, as we are going to describe below. Therefore, for our further action, we must first try to separate the above-mentioned concepts – plan, planning, strategy, goal – clearly so that we can find the appropriate relationships between them and only then use them in good urban governance.

The easiest way is to start from the concepts of strategy and goal, and their mutual relationship. If we have some goal, whether it be, for example, an evening meeting, or in the case of a city, for example, building a bridge, the path to it should be rightly called a strategy which takes the form of some schedule of activities or work.

But how did such a goal come about? Where did the need to build a bridge in the city come from? Where did our need to meet with friends in the evening come from? Why did we choose this particular bridge in this place or this friend at this time and in this restaurant from the huge board of possible activities for further development? System theory will help us to answer.

The goal in the future is always the result of the choice of the system during the concentration process, i.e. the result of, for example, our decision or perhaps the decision of the city in a continuous human effort. And we already know from the past sections that a decision means a regulation of development. One can simply imagine this on some simple personal goal. For example, if I have arranged an evening meeting with my friends, I have reduced the huge board of possibilities of spending my evening leisure time to one, thus setting and to some extent limiting the direction of further development.

The goal in the future is a regulation on the one hand stronger than the "ordinary" decision made, since it affects many more other potential decisions going successively one after another in the future, but on the other hand the goal in the future is not the same as a moment that took place in the past. It is possible – sometimes more and sometimes less – still to do something with that.

It is suitable, as we have already done it in the case of decisions, to divide the goals to primary and secondary, and possibly also others, hierarchically lower. The primary goal is the result of the agreement of the elements of the system in its actual formation. That is why these elements have come together, why they have given part of their power and freedom to a higher whole. The primary goal is the very foundation of the system. Milestones on the way to achieving the primary goal are secondary goals.

We have already sporadically spoken about primary goals in previous parts, when it was already inevitable, here and there. In our world, the clustering and linking of elements into larger systems is done by development itself, i.e. a concentration process occurring in places of inequalities, growing as a result of thinning which is present always and everywhere. The elements form units against the forces of decay, because together it is more advantageous for them, better, safer. We can see an economic term in it – economies of scale, or, in the case of states, the essence of human behavior – the preservation and increase of one's own power and more. All these concepts, however, are the consequences and manifestations of the tug of war among basic system processes taking place in our reality.

Therefore, each system always has a primary goal with which it was developed. This goal by its elements is therefore always its own existence. Existence of a whole composed of its parts. The existence of the whole in order to prolong the existence of parts. In the case of inanimate matter, this goal manifests itself as a passive endeavor of the systems to survive in time; in the case of the universe to increase the deformation of space-time. In the case of living matter, this objective manifests itself as the actual spread and transmission of genetic information. It is therefore an active effort of genes to maintain their own existence[360]. In the case of living organisms, this existence is limited in time, and people have learned to call their primary goal in a loftier way as fulfilling their own purpose[361]. We do not like to give cities any intention, because as people we want and need to always feel that we make decisions about them, create them and are responsible for their

[360] e.g. Dawkins (2003)

[361] However, for this we need recognition of people around us and thus arising a feeling of uniqueness. The fulfillment of our own meaning therefore comes like everything else from our surroundings (spatial and temporal).

existence. The primary objective of the city's existence must therefore be seen, as in the case of inanimate matter, in its very existence.

We want to live in cities and due to the growing urbanization more and more often. We create them to live better. Therefore, the primary objective of cities – efficiency and fitness for life – has always been in line with the common goal of all people – a good life in fair institutions – described by French philosopher Paul Ricoeur[362]. For cities, this includes creating a safe environment, providing supportive infrastructure, unifying rules of conduct and action, among others. The cities that are achieving these goals, or achieved them in the past, increase their attractive power, size and significance. In other words, people like to come back there, whether from business or other trips. And it is this institution of return of people to the given city that will grow even more with the increasing availability of places on Earth. It is therefore a natural effort of each city to fulfill its primary goal better than other cities in the area.

It is a constant search for balance among the whole, parts and elements, as the primary goals of a higher whole must always be in some harmony with the primary goals of parts and elements, and vice versa. The primary goal of each system originated and is transferred from the primary objectives of the elements of that system. In nature, it is natural that the primary objectives of systems are consistent with the primary objectives of their elements. Our cells and genes, if one is healthy, "want" to survive, just like the one that is made up of them.

However, in social systems, we have to actively and constantly seek this balance. For cities, this means keeping one's environment or the environment of one's parts within certain limits of people's tolerance. For states, this means looking for limits of individual freedom[363]. Meanwhile, in history, whenever we have deviated towards, for example, oppressive states trying to impose their own goals on people, the course of development has proved to be a dead end. A whole which is not to be condemned to a gradual extinction as a result of internal thinning after evolution begins to circumvent it cannot have its primary objectives in contrast to the primary objectives of its elements. That contradicts the principle of a non-zero profit strategy through which development happens[364].

Indeed, today we have already learned a lesson from the experiments of totalitarian states favoring their own existence, that is, the existence of a political regime, over the existence and freedom of people, which have so far always resulted in

362 Sokol (2016, p. 62)

363 Recently, such a search has been brilliantly elaborated e.g. by American social psychologist Jonathan Haidt in his bestseller *The Righteous Mind: Why Good People are Divided by Politics and Religion* (Haidt 2012).

364 The development of the world based on this principle of non-zero gains, or win-win strategy, is discussed in detail by Wright (2011).

the end of their own development. Thus, the gradual and ultimately huge internal debt, both economic and, in particular, social and cultural, which led to their later disintegration.

The primary objective is established as a result of the primary decisions of the given system. We described these in Chapter 10. These are the decisions that shaped the given system at an early stage and thus they are deeply anchored in its essence. These are the decisions made by the elements of the system. In man, the cells and our genes are responsible for them. In cities, these are the decisions made by their inhabitants. And it is similar in companies that arise as a result of human entrepreneurial activity.

Secondary goals, i.e. hierarchically lower goals, should set the path towards the fulfillment of the primary goal. Secondary goals are the result of secondary decisions of the system. They are determined by some control layer of the system. In the case of man, it is our subconscious or consciousness, in the case of a company it is management and owners, in the case of a city it is its administration. Secondary goals are milestones in the strategy to achieve the primary goal.

As a rule, there are a lot of options about how to proceed towards the fulfillment of the primary objective and, moreover, this space is variously changing as a result of the development in the wider surroundings. However, it is always bound by two extreme ways; strategies. Either by preserving existence – manifested by persistence in time and at the same time by spatial growth, or by qualitative internal transformation of the system. In other words, the development of any system can extend "out" into space and time, but at the same time also "inwards", into depth[365]. Thus, in other words (linearly unbalanced) to grow or to internally (nonlinearly unbalanced) change.In the private sector, the primary objective is usually profit, that is, the prosperity of the company, similar to maintaining one's own existence. Discussions are held in each company on the secondary goals, i.e. the search for ways to achieve the greatest and longest lasting profit. The two extreme paths of development are market share growth and product and process innovation. In the case of, for example, a single product, it is the growth of its sales until saturation of the market and completion of the given segment vs. its innovation.

For example, during a war conflict or similarly during a sports match, the primary goal is, with justified exceptions, victory. Secondary objectives then form a strategy to achieve it. The two extreme options here are the amount and concentration of power vs. sophistication of the procedure.

365 This further dimension of development is accentuated in the work of Teilhard de Chardin (1990).

In man, the primary goal is based on his deepest emotion, which he has in common with all other animals – fear. We are concerned about our integrity, our existence, our future, our own lives. The secondary goals then follow the Maslow's pyramid of needs[366], we maintain social relationships, we actualize ourselves, etc. In humans, however, the secondary goals of action are variable over time, we would say almost "liquid". They vary with age, with the surrounding situation and many other factors. Therefore, we can call the two basic directions only very generally as further growth of some of the forms of our power (over the territory, over people, over property) and on the other hand with the depth of inner knowledge.

In the city, the primary objective is to maintain and continue the concentration process, i.e. the growth of meaning and, with it, also the attractive power. And this goal can again be fulfilled by paths of development in the space between two extreme ways – growth or internal transformation. Cities can increase their importance by territorial, population or economic growth. They can approach the surrounding centers and connect with them within the metropolitan area. But they can also undergo internal changes, improve their living and social environment. And this applies also to every subsystem in the city, for example, frequent traffic jams in the streets can be eliminated either by building a new road or by prohibiting the entry of cars.

Every city and system in general are always rather opposed to internal transformations, i.e. non-linearities. Non-linear development means a period of chaos, and a new period of order that comes after it is usually too intangible, uncertain and far away. Therefore, if a city, or any other system in general, has enough space, resources, i.e. resources in general, it prefers to use the path of extensive development of growth. And we already know from the previous parts that even this extreme path can be destructive.

The two extreme paths limiting the scope for possible further development of the system, and hence the secondary objectives of the city's actions or human behavior, are very closely related to the decision-making modes that we described in one of the previous sections. That is, with decision-making in times of crisis and in times of calm. In other words, the ways to reach the primary goal are sometimes very close and sometimes the space between them is, on the contrary, large.

In the time of crisis, the primary objectives are very clear. Our decision-making or the decision-making of cities is changing too fast. Primary goals become direct drivers of

366 more e.g. Maslow (2014)

subconscious behavior. People run away from a dangerous place. In the event of an accident in the city, the administration and especially the emergency units of the city intervene, i.e. firefighters, police officers and other components of the integrated rescue system. During crises, everyone behaves the way (s)he is able to. The closer we are to the crisis, the more subconscious we are. Our time frame is shrinking. The broad perception of the present from the distant past all the way to the distant future narrows from both sides to the present.

Conversely, during a period of calm, the primary goals are, as a rule, not clear enough. They are clogged under the deposition of other activities and other current objectives of action and decision-making. As we move away from the crisis, the primary goals are subjectively weakening and our ability to set the secondary goals well within them. We are starting to be distracted because we have lost sight of what is important in life. This can be thought of as the movement of grains of sand in a funnel that are attracted towards the central hole. The further away they are from it, the more the problem of crushing on the contour line is "bothering" them due to the slow downward movement. It is the same both for man and city. Investments in flood protection measures take place mainly in the period after the floods. Reconstruction of bridges and their thorough inspections only after one of them falls.

In general, therefore, we can say that in times of crises, when we usually have the greatest uncertainty for our future, we have, on the contrary, a great deal of confidence in our decisions. Decision-making is easier for us and therefore we usually make active decisions. In the long run, development continues to go further through what we need, not through what we want. Conversely, in a period of calm we have a little more certainty of the near future, but again we have great uncertainty in our decision-making. This is harder for us and therefore we are usually not much able to make decisions. We are lazy or procrastinate. This, by the way, is what the whole wealthy Western society[367] is currently experiencing.

However, none of the extremes suits us. Not too much uncertainty of the future, but not too much certainty either. On the one hand, we enjoy a certain amount of freedom, but again no order satisfies us. We are biologically adjusted to a certain degree of certainty and uncertainty. We need some degree of order for our lives[368]. We need some security, some relationships, some goal in front of us. Unlimited freedom does not suit us as well as no freedom[369]. When uncertainty is too great, too many changes are happening and too many unknown things, we are disoriented. We need to reduce the level of

367 From today's really inexhaustible number of books describing this state, sometimes generally and not very appropriately named as postmodernism, we can mention e.g. the works of British historian Tony Judt (e.g. Judt 2011) or French sociologist Gilless Lipovetsky (e.g. Lipovetsky 2011) who states as a possible way out of the current society-wide situation the emphasis on ethics. On the other hand, it is a natural process even in the animal kingdom. Charles Darwin himself describes the loss of instincts in animals, or their weakening during domestication (Darwin 2008).

368 The need for order, impulses and recognition is accentuated in the works of, among others, the doyen of Czech psychology, Radkin Honzák (from many e.g. Honzák (ed.) (2011)).

369 And it does not suit the society as a whole either, as stated e.g. by Zakaria (2004).

uncertainty in some way. We want to think and act in advance and avoid mistakes. Therefore, we consider the possible variants of events that will occur, try to select the best options from them, in accordance with the primary objectives, and prioritize them. In other words, we are planning[370].

Planning is our effort to set a certain order in the future full of chaos. We are planning because we are afraid of what will come. Our brain needs a plan against stress and, paradoxically, it doesn't care a bit about what's in it.

Each of us plans a bit differently. Some of us need to determine exactly what (s)he will do. Someone less. Some have greater tolerance to the surrounding chaos, some less. Someone is able to board a plane and fly to an unknown country without any preparation, some are not. A clearly defined goal helps someone make decisions. For another, it is fear of a clearly set goal that causes demotivation to action. We are all seeking a suitable measure of order and chaos throughout our lives[371]. And this measure is, moreover, gradually changing as we age and gain different experience. In general, we are less willing to take risks in old age than in youth when we still have long-term goals. Referring to this, economists use the concept of willingness to accept risk[372].

Planning is part of common behavior of man. In many areas of human activity, constant goal setting and creating of strategies to achieve them is completely normal. We do not even consider a whole lot of such regulated practices. For example, when we are brushing our teeth, we first take the toothpaste, which we squeeze on the toothbrush, and then we start brushing our teeth. Subconsciously we implement the learned process that we learned step by step in our youth. But we can also plan consciously. It is therefore not possible to reject planning as such, because then we would reach the level of lower animals. Everything that man has created so far was a result of some – though at different times and periods variously limited – ability to plan. Planning means selecting from the options that come to us from the future.

However, in the case of our personal planning, it is actually not us who are planning. Viewed from the distance, neither our goals nor planning can be seen. It is not visible that we have arranged an appointment with friends. However, we can see our executed decision to come to the meeting. We say that we have planned something, but in fact the goal of our action came about by interaction between our control layers. It is not the system as a whole that plans, but planning is the result of the interactions of its parts. And so it is not the city that plans,

370 How to reduce uncertainty by means of planning is discussed in detail e.g. by Benveniste (1989).

371 Even one of the first, and now already legendary, successful attempts to simulate life and evolution – the game called „Life" by the British mathematician John H. Conway – contains boundaries from both sides (the game token is eliminated from the game when it has too few, but also too many other elements around itself), Stewart (2014).

372 There are countless researches and publications on the topic, from many e.g. the research conducted by Cawley, Ruhm (2011).

but people in its control layers plan. The city viewed from a distance executes decisions.

Planning is therefore a form of decision-making of the system. It results in decisions and actions. It is a way of making decisions in the period of calm. It is a slow decision mode. It takes place during the ongoing concentration process and therefore requires effort. Planning is a process of system development in a linearly unbalanced phase. In it, a hierarchy is formed – in this case, among other things, in the form of prioritization of possible variants of future development. During planning, a huge number of inappropriate or unimportant possible targets are initially removed from consideration, and the advantages and disadvantages of the remaining ones are considered, up to a possible choice. The choice of one of the development options and its establishment then means the transition from linear to non-linear phase. This is already a decision, changing the behavior of the system – ourselves in the case of personal planning, or the city in the case of city planning.

Setting a goal means planning. This decision to do something in the future is identical to the decision not to do other things or actions. Planning therefore means deciding and regulating future development. It is therefore necessary to differentiate the concepts of planning and having something planned. To plan means to show initiative in development, while to have something planned means to regulate future development. Planning indicates a phase of growth, having something planned indicates a non-linear development, a decision.

This stems from the triad of concentration that we have discussed in Chapter 6. It shows how an order emerges from chaos in a system. The order at some point turns into a non-linearity, i.e. a choice of the system. The basic schema of this triad of concentration is therefore a sequence: plan => to have something planned. Or, if we add also the zero variant to the measure of effort, then this sequence is: not to plan => plan => have something planned. It is shown in the left side of the TAB. 7.

However, the initiated process can be continued further. It can be imagined as if the basic triad of concentration is rotating, but it is not a cycle, but a spiral towards an increasingly detailed scale, similar to a fractal. However, we do not have appropriate language concepts anymore, the verb to plan is already in the perfective aspect. In the second iteration, however, we can still help ourselves by confusing it with targeting

and divide it to active and passive. This is shown in the right side of TAB. 7.

However, other iterations are already difficult to call in any way. For example, large production processes are designed in this way. The goal of the n^{th} order then corresponds to the strategy of the $(n+1)^{th}$ order, etc. The strategy to achieve some of the goals of a higher hierarchical level is then actually the goal itself (FIG. 30).

Whenever the goal of a higher order is firm and stabilized, it is possible to plan further towards the lower levels of the hierarchy and set targets for ever lower orders and strategies leading to them.

At the forefront of development, however, society always needs to discuss in advance what is stable and what is not, and therefore what is to be planned, what can and, on the contrary, what cannot be planned. The ever-emerging social system is only stabilizing its primary goal and possible strategies leading to it. First in ancient Greece these were the city states, later in the period of Enlightenment state formations, and today the ground floor of the hierarchy of goals is thus being solved in multinational units.

The concept of planning in the case of society or social systems should therefore be used with care. In a narrow sense, it is a process in which, in the uncertain future, suitable opportunities for further development of the system are sought and they are being prepared in the system. This is an expression of initiative. However, in the general sense, and viewed from a greater distance, where the objectives merge with the strategies to achieve them, the concept of planning also includes

Decision ↓

	Deciding on a hierarchically higher goal		**Deciding on hierarchically lower (following) goals**	
Type of activity with respect to future	No action	Consideration	Consideration, evaluation and selection	Strategy selection and creation
Type of activity in the present	Subconscious response to upcoming situations	Conscious, ready response to upcoming situations	Refusal to carry out actions without a clear connection with the objective	Active implementation of actions towards the set goal
Naming of the given activity	Non-planning	Planning	Passive targeting	Active targeting

The amount of effort required →

TAB. 7 – Relationship between decision-making and planning, source: elaborated by the author

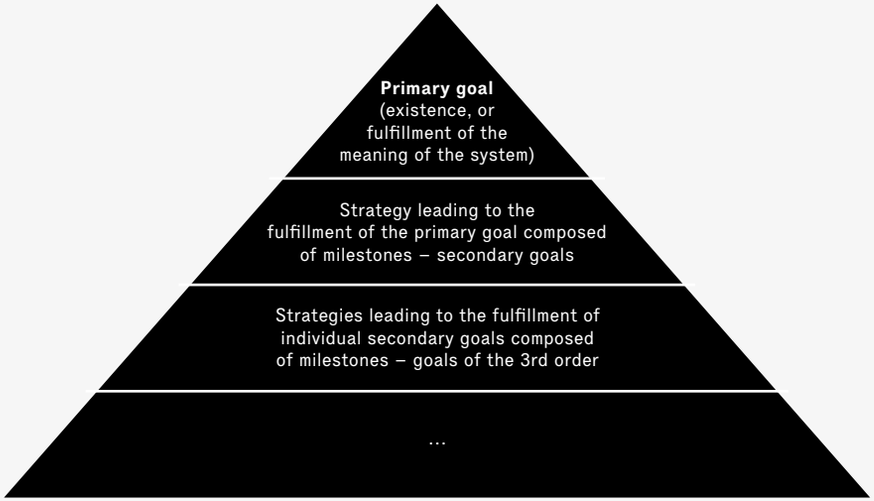


FIG. 30 – Relationship between hierarchical levels of goals and strategies, source: elaborated by the author

the decision to choose the next path. Planning and targeting, i.e. regulation of future development. That is why also the approach of society to planning has evolved differently and varied in different eras and regions, which will be described in the next chapter.

There is only one kind of planning. In the Czech Republic, however, cities are required to have both initiate strategic planning and, at the same time, regulatory spatial planning.

It is very difficult to plan cities strategically due to short election cycles. The name itself is a poor translation of the corporate method of strategies.

The basis of urban planning is the City Development Strategy, which begins with two numbers: the targeted population and the year of reaching this number.

The city development strategy is based on the basic feedback loop: measurement – evaluation – correction of existing activities.

In small towns, joint action is important, only in big cities does it make sense to create plans and documents.

The basic analysis of the development strategy should identify old and solid structures in the current development of the city, describe these development trends and their causes and compare them with other cities.

17. City development strategies

The attitude of the Western European part of the world and society to planning has changed and evolved during the epochs. The old planning thinking, called a generally rational approach[373], was at the beginning of the 20th century the result of the belief that with enough data, the future could be well estimated and society managed. Later the central Eastern European planning was, among other things, based on this approach, which delayed further development in planning approaches in the communist-affected part of the world[374].

In the democratic part of the Western world as early as the second half of the 20th century, it was common knowledge that in large social systems where there were too many decision-makers over whom there was not and by its very nature even could not be any control, so the development could not be predicted much. However, it was believed that their involvement could improve the quality of planning. The target group of planning, namely people, gradually came to the fore. However, planning was still the work of a narrow group of experts. In general, the growing resistance to bureaucracy and the overall emancipation movement thus continued.

In the 1960s, American planning theorist and lawyer Paul Davidoff called planning a tool to strengthen the power of the ruling class[375]. Planners, while still resisting in the 1970s, argued that their role was merely technical and professional[376], but with the advent of philosophical direction – the so-called critical theory[377] – pointing to man increasingly overcoming natural determinism but, at the same time, continuing self-submission to the overtechnical society, the paradigm of socio-economic-geographical planning changed at the turn of the 1970s and 1980s. Planning has become a process in which planners act no longer as engineers but as managers of the whole process.

In particular, in the 1980s, this opened the door to interconnecting private-sector management with administrative procedures in public administration. The original method of achieving corporate goals was somewhat inappropriately renamed to strategic planning. The method of goal

373 Thus planning is divided and the first era named by e.g. Beneviste (1989).

374 In the second half of the 20th century, as a result of planning for the functioning of society as a whole in the socialist states, the term, for example, in the United States of America, got even such a label of left-wingness that the phrase „political analysis" was rather used for similar „planning" procedures (Altshuler 1965).

375 Davidoff (1965)

376 Faludi (1985)

377 e.g. Marcus (1976), but especially the work of the German sociologist J. Habermas (e.g. Habermas 1988)

achievement strategies began to be used in the private sector in the 1950s as a management task. First as an informal way of working, later as a certain standard. Its aim was to increase managers' ability to perceive the time horizon and to take information more systematically[378]. Its essence was to seek some approximation of the current state and to search for suitable procedures of activities for various development possibilities.

Strategic planning, now well-known, is thus a natural reflection on the distrust gradually revealing in the past – the distrust in our abilities to predict the future well. It is therefore not directed at long-term development, but rather on specific projects[379]. It looks for essential factors of development and priorities for action and, on the contrary, does not say there exists the best solution[380].

While in the US strategic planning has become a certain trend in regional urban planning only temporarily, in Europe and particularly in the contemporary European Union, the creation of strategic plans and frameworks at many levels is common. At EU level, the so-called Community Strategic Guidelines have been developed and are constantly being updated, in which nation states should be able to fit with their national strategies. In the Czech Republic, The Strategic Framework for Sustainable Development in the Czech Republic and the Regional Development Strategy 2014–2020 are valid today and both new documents are currently being prepared for the next programming period[381].

At the same time, however, land-use planning is valid in the Czech Republic and precisely defined by the Building Act. This is also divided into several levels – at the state level it is the policy of territorial development, at the regional level it is the Principles of territorial development of the region, at the level of municipalities and towns it is the territorial plans and also regulatory plans and other instruments.

This duality of planning, especially at the level of cities in the Czech Republic, is very unfortunate. On the one hand, a development document is required from Czech cities, and on the other hand, very strong spatial regulation is enacted by legislation[382]. Planning must be one, as the English city planner Sir Peter Geoffrey Hall, deceased in 2014 and recognized by both the professional and lay community, used to say. And this uniqueness stems from the very nature of planning – it is the decision-making of the city – and therefore cannot be divided.

This problem has been highlighted for some time and various solutions have been proposed. For example, there are so-called programs (incorrectly plans) of municipal

[378] This development is well summarized e.g. by Bracker (1980).

[379] Bryson, Delbecq (1979)

[380] more e.g. Below, Morrisey, Accomb (1987)

[381] The issue of European strategic planning is well summarized by e.g. Trusinová (2007).

[382] Jehlík (2015) states that the land-use plan (in the Czech Republic) is nowadays mostly seen only as a restrictive tool.

development emerging, which seek to be the roof of both the strategic and territorial plan of the given municipality. However, neither of these are able to obscure their mutual contradiction in the form of contradictory initiatory and regulatory substance.

Or there are also "instructions" emerging how to solve the situation by joint – preferably parallel – creation of the strategic and territorial plan of the given municipality or town[383]. However, even this is not the most appropriate solution, especially at an ever-accelerating time, when both documents become outdated at different speeds depending on the whims of development. Therefore, the only real solution to ensure the future development of cities is uniform, comprehensive planning. Therefore, we will return again to the detailed analysis of the concepts we started in the previous chapter.

There we, among other things, described that planning should not be understood as creating a plan. Neither a strategy nor a goal are the same as a plan. The concept of plan should be linked to space, i.e. the territory and the map. So, it is not very appropriate to talk about plans if we mean strategy, and vice versa if we do not mean space. Therefore, the basic document of each city must be the City Development Strategy, or we can say also in different words – Developmental Strategy of the City.

Such a document should be a thorough description of the way to achieve the primary goal of the given city – the growth of its importance in accordance with the will of its inhabitants. Therefore, there should always be at least two numbers in its introduction. The first one is density or intensity, i.e. in other words, the planned or at least intended future population in the territory. And the other one is the year to which this figure refers.

Steps to achieve this goal should be described in the following text. And here, of course, each city will already have a different document. The development strategy of the city, which is growing in population as well as significance, will be logically different from the thinning city, which, for example due to old industrial burdens, cannot expect either population or economic growth in the near future, and in which it is usually necessary to first proceed in a controlled way to liquidate the unused remains of previous human activity, brownfields, but also, for example, housing estate ghettos.

In the cases of cities or territories where the state of both social, economic and environmental conditions is really serious, there is usually nothing else left but to invite a higher whole, the state, to the development strategy of the city and

[383] e.g. Půček, Koppitz (2012)

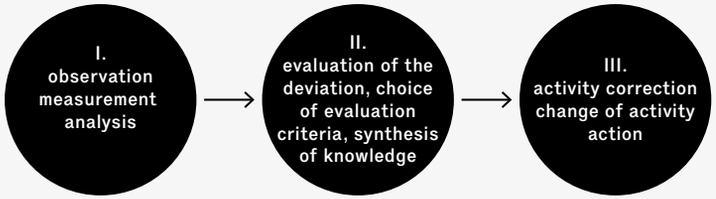


FIG. 31 – Basic feedback loop of control process, source: elaborated by the author

by creating some exceptions to across-the-board rules, especially economic ones, to allow the region to restart. Such a creation of a special economic zone within an otherwise socialist state stood at the beginning of, for example, one of today's most progressive cities in the world – Shanghai in China[384], as well as many others. Of course, there is no need to go that far for examples. Also, the rapid development of Pyrzowice Airport and with it the city itself (Katowice) is attributed to the common great activity of the city and the Polish state. In contrast to the stagnation of the nearby Leoš Janáček Airport in Mošnov.

Similarly, there will be a different strategy for the development of a big city and a small city, historical and modern, tourist or industrial. Nevertheless, the essence of the creation of this document should be the same – derived from the basic feedback loop described by system theory and cybernetics. This can be well illustrated in a simple example from living nature. When an animal predator chases a victim zigzagging in front of it, it measures and analyzes its movement at any moment, evaluates the change of direction of its running, and corrects its own activity accordingly[385]. If the speed of its feedback is sufficient, it will probably be successful in its hunt.

The feedback loop is therefore always made up of three parts: measurement[386], evaluation and action (FIG. 31). It is always necessary to start the process of planning with a step of observation and measurement to find out what the given city wants at the given moment, what it knows and what it can do. Only what can be measured can be managed and planned. The second step after the analysis is to evaluate the observation and agree on the need for change. And as the third step follows the action, that is, making the change itself. This change can be setting a goal as well as creating a strategy to achieve it.

384 Yang (2002)

385 For example, a fox chasing a rabbit at any moment measures its current state and position, then evaluates the deviation by comparing the direction of movements of them both and doing other actions accordingly and changing its movement (Lauschmann 2015).

386 „If you can't measure it, you can't control it," former Mayor of New York and one of the richest people on earth, Michael Bloomberg, used to say (Makovsky et al. 2016).

The feedback loop is directly based on the triad of concentration. The action marks the city's decision, non-linearity, separating the two turns of the triad of concentration. The first two parts of the feedback – measurement and evaluation – are part of a linear non-equilibrium phase of development that precedes non-linearity.

The measurement indicates the interaction of the lower control levels of the system with the sensory receptors. During it, a model of external reality, the external environment, is formed inside the control components. The situation is modeled based on information coming through the sensory organs, in the case of the city through various information channels. The quality of model creation is thus directly dependent on the sensitivity of the measuring instruments, the details and accuracy of the database. Few data sources or their inaccuracy means the omission of some of the important aspects of the current situation. Omission of some of the problems or trends.

The evaluation is then the interaction between the two highest control levels. It evaluates, compares the measured data with the standard of knowledge and experience of control layers, or with previously set priorities. The quality of the evaluation therefore corresponds to the experience and knowledge of the management level. In large cities, therefore, some expert analytical institution must be in charge of planning, or at least the city council department.

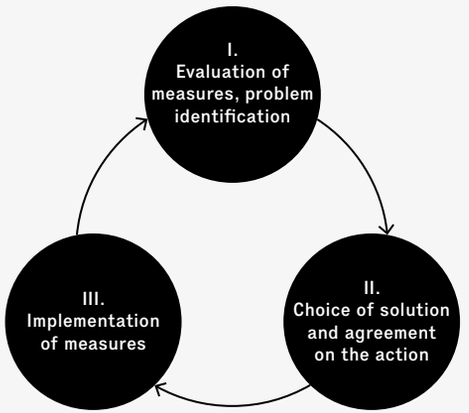


FIG. 32 – The cycle of the basic regulatory feedback loop of city decision-making, source: elaborated by the author

In addition to the above-written three sections, it is always necessary to add the evaluation of the success of each event. In small towns, this usually takes the form of population satisfaction, but in large cities it is poorly measured and it is necessary to use various quantitative indicators (Key Performance Indicators, KPI) and to monitor them regularly. However, evaluation is always also part of the next cycle of new feedback as the last step of the feedback loop. It is also, at the same time, its first part – measurement (FIG. 32).

However, there is a significant difference in the planning of a large city and a small town. A large city has a hierarchy of goals of more levels than a small town. Small towns have few inhabitants, thus, little energy, and the creation of multi-level strategies in them can easily kill the necessary activity of people and actors of development. Positive attunement of people that leads to activity rarely takes the form of paperwork or long meetings. In small towns, action is key, not targeting. The mutual trust of the population, based on frequent encounters, is important. The existence of documents is, on the contrary, evidence of low mutual trust (or precisely a large number of people where mutual trust cannot occur). In small towns, therefore, it makes sense to have successive small and pleasant steps that people enjoy. Not a process controlled by someone or something. There is no need for strategy for action, it is enough to have a constant, wide-ranging discussion with the inhabitants and actors of development, and in small towns this is possible. The key commodity of the city is people, not written strategies. Those themselves will not bring any action.

After all, even this approach, called incrementalism, was already described, in 2018 by the late professor of economics and political science at Yale University, Charles Edward Lindblom. Each joint action consists mainly of our (limited) motivation to act and needs to be nourished by small advances and small steps that we constantly adjust in accordance with the development[387]. The prepared strategy of this procedure makes no sense. This is similar to avoiding each other at a pedestrian crossing, where we are already acting in direct motion and not on the basis of long-term goals. It is sufficient that we are aware of the primary goals or the goals derived from them (in this case, to avoid the person crossing from the other side), and to monitor them during our activity.

Large cities need planning more than small ones. In the case of implementation of a large measure in them (implementation of a policy, construction project, etc.), it is necessary to determine the whole hierarchy of objectives and strategies. Large measures or investment actions often require the

[387] Lindblom described this principle for the first time in an extensive and comprehensive way in his book *Intelligence of Democracy* (Lindblom 1965), but later incorporated it also into his other works.

creation of additional control layers – project manager, engineering, monitoring and others – because they always involve a high degree of uncertainty. This can in turn be reduced by many other tools, such as division of tasks, mapping of risk outbreaks, using qualitative methods, controlling indicators and other methods.

In the case of large cities, the development of the City Development Strategy from "simple" measurement and observation becomes an analysis of the current condition of the city (I), the interests and needs of the population, but also the constraints of decision-making given by general development or higher social units. Therefore, a socio-economic-geographical analysis must always be carried out at the beginning, containing in particular:

- identification of old and solid structures on which the whole city stands,
- identification of trends of development and identifying their causes,
- benchmark status and trends with other cities.

Identification of old and solid structures

When creating the city's development strategy, it is always necessary to ask what is certain in the future existence of the city. The fundamental developmental processes – concentration and thinning – are absolutely unchangeable; after all, we have already derived the primary goal of the existence of cities from them. Furthermore, absolutely nothing is obvious, but old and usually large structures firmly anchored in the historical development of the city and its surroundings are quite sure. Those are more likely to continue than young and unstable structures. In other words, the city is likely to exist tomorrow, laws and regulations are likely to be in place, tram tracks are likely to be in the same place, but the tram is no longer likely to arrive, or our agreed upon appointment may quite likely be canceled.

The stability of structures is usually related to their size, age, interdependence and several other factors. This is illustrated by the temporal aspect of our personal goals. For example, if I intend to run tomorrow, even though I have never run before, I am very likely able also to carry out this activity. My own motivation and the goal I have set will probably be enough for me to overcome the difficulties of starting a new activity. And there is also much less probability that something unexpected will enter this plan of mine during a single

day. Conversely, my New Year's resolution – I will lose weight – will not usually succeed against my old and driven tracks. The old stabilized structures running through our lives as long and solid tracks from our past to the far future will easily overcome our momentary state and enthusiasm.

Of course, it is not dogma, even old structures can be changed, but it is challenging. This requires extreme concentration, which must somehow be derived from a hierarchically very high target, preferably a primary one. In man, such an impact can have, for example, life-threatening health problems or similar types of concerns affecting our deep emotional centers. As a rule, any change requires a combination of strong "push & pull" factors.

And mid-term planning is somewhere in between. Will I be able to keep running regularly for a month if I have never run? Sometimes yes, sometimes no. It may work and may not. The influence of old ruts, our intentions and environmental influences can be balanced. By the way, it is precisely the original strategic planning taken over by the public administration from the private sector in the mid-20th century that is therefore of the medium term at maximum. It does not aim to estimate the future, but rather seeks the best way within a more or less certain future.

Identification of sufficiently stable structures should be carried out in at least three basic areas of city administration – spatial, social and the economic area arising from both of them – when creating the development strategy in large cities. The old structures in these individual areas of administration define the city, they can be changed only with difficulty, slowly and in an expensive way, and it is usually necessary to build on them further development of the city and good governance.

In the spatial area, each city is determined by locations selected a long time ago in its history and associated physical-geographical conditions, altitude, climate and weather, geological subsoil, geomorphological and terrain characteristics. Only on them as younger structures stand street networks, buildings and their functional use.

In the social area, the oldest structures are the early and ancient decisions of its indigenous inhabitants, related either directly with establishing the city or its golden era. Sometimes these are kept as certain legends or as a general description of people's perception of the city. Prague is called the mother of cities, Zlín and Pardubice are industrial towns, Olomouc is the ecclesiastical and educational center of Moravia, etc. However, they are not always positive. Such examples could be certain social "labels", such as black Ostrava, the original

attribute referring to the "color" of the industry and gradually transforming into designating the "color" of the atmosphere or, even worse, the color of complexion of the Roma minority.

In the economic area, the oldest structures usually arise from spatial localization of the city, fertile land, proximity to mineral resources or trade routes. Old economic structures can be both a limitation of further development of the city, as shown by examples of cities full of old industrial sites, as well as a springboard for further development in case of appropriate working habits of inhabitants or traditional business atmosphere.

Old and stable structures – even though their influence is constantly weakening by the development of society – significantly influence the targeting of city administration and planning. Cities near mountains, beautiful landscapes full of rivers and ponds, require different targeting of city administration than cities located in agglomerations of large settlement centers, which usually form a "dormitory for its employees". And they require differently targeted management and planning than, for example, university cities.

Knowledge of development trends and recognition of causes

In the analysis it is not appropriate to map only the current state, but to use trend indicators. From the part devoted to the development of systems we already know that both thinning and excessive growth can be equally problematic for the city in different areas. Achieving a critical and minimum value of the number of new apartments can mean igniting positive feedback – buying apartments for investments, short-term leases, postponing further construction and many more – as happened e.g. in Prague in 2016 and 2017[388].

[388] Hainc, Červinka, Šajtar et al. (2019)

If any negative trend has a solvable cause, it is always more effective in the long run to address this primarily and thus to carry out prevention. If, on the other hand, the causes of a certain trend are unknown or too complex, i.e. in other words linked directly to the basic systemic processes of concentration and thinning, there is no choice but to address the manifestations and consequences. Basic system processes need to be respected, we need to accept them and adapt to their consequences. In development we literally swim in the river in a strong current. One can swim against it, but it is possible only for a while. There are never enough resources for it. But the same applies also to fast forward swimming. An example of such an effective treatment of symptoms can be the approach of New York City at the end of the 20th century. Based on the

so-called Broken Window Theory, which describes the detrimental impact of a once damaged environment on its continued deterioration[389], both minor and severe crime[390], which had been extremely atrophied until then, were significantly reduced in 1995–2002. The causes were not treated. It was the consequences which were treated.

[389] Keizer, Lindenberg, Steg (2008)

[390] publicly accessible online database of the New York City Police Department (NYPD 2018)

Benchmark with other cities

The mutual proximity of cities in today's shrinking world heralds their increasing competition. It is necessary to continuously monitor and identify future problems in advance or, on the contrary, dilute concerns about the growth of monitored values. Having a benchmark with other cities outside its own nature, for which it was created (i.e. to create reference values for comparison), also helps to draw attention to shortages that may be harmful to the given city in the future as a result of competitors' actions. For example, a kindergarten built in the neighboring town can significantly obviate the preferences of the inhabitants in choosing a suitable place for living, etc.

However, it is always necessary to bear in mind the specificity and uniqueness of each city, its countless past choices and locked development paths in the spirit of the already mentioned dependence theory on the chosen path. Free public transport in Tallinn, Estonia, was not loss-making for the city because it forced a sufficient number of its inhabitants to rewrite their permanent residence, thus earning the city a total benefit from this movement of theirs under the local tax collection system[391]. Similarly, the reduction of the cost of public transport, for example in Vienna[392], and other follow-up measures may increase the share of this mode of transport in total transport capacity, but neither of these "successes" may mean that the same will succeed e.g. in Prague[393], where more than 60% of the population (compared to 39% in Vienna[394]) use public transportion to travel around the city and fares are not expensive at all compared to other cities in the Czech Republic.

[391] Gradually, however, more and more Estonian regions are moving to this system (Gray 2018), and the situation thus begins to follow the long-standing economic lesson on people's behavior in cinema and creation of regulations. In the beginning, all viewers sit in the cinema, but after one who could not see over the others, stands up, others begin to stand up as well. In the end, everyone is standing in the cinema, but they see as badly as when everyone was sitting. It is therefore appropriate to prohibit standing in the cinema.

[392] Together with a long-term sustainable transport policy, this and other measures are described e.g. in the study by Buehler, Pucher, Altshuler (2016).

[393] Information report on measures e.g. Aktualne.cz (2015), information report on results e.g. Sůra (2018). For the time being, detailed research and analysis of the actual impacts and effects is lacking.

[394] Luxner (2013)

The second step of feedback – evaluation – becomes an extremely demanding synthesis of knowledge (II) in a big city, i.e. the extraction of priorities from the performed analysis, the identification of secondary goals and strategies for their implementation. From the vast amount of information about the possibilities of urban development (the old structures of the city and their stability), it is necessary to deduce the priorities of joint efforts and spending. And there should be a consensus

between the city administration and other actors in development. This can in principle be achieved in two ways.

One of them can certainly be repressive methods, that is, managing everything, everywhere, all the time. This can be compared to the athlete's training and sports performance. If he wants to achieve top performance, he consciously visits sports grounds and teaches his muscles to listen, react correctly and on time, up to the automatic subconscious level. At a crucial point in his well-trained organism, "all" cells in the body not only do not prevent, but actively help sports performance – every muscle and every cell "want" to win. In the short term – for example, for a subsequent momentary sport performance – these methods can be successful. However, for the long-term administration of the city nowadays, these are harmful for the city, but also for society as a whole, and among other things, also practically impossible.

It is therefore much more appropriate and in the long term more efficient for the good functioning of the city to share information as much as possible, i.e. the widest possible information interconnection. The general knowledge of the future development plans of the self-government, transparent management of public money and the overall predictability of their behavior are among the inhabitants a sign of excellent top-down information interconnection. On the other hand, thorough data collection (partly also sharing it within the limits of personal data protection) on population movements, utilization of means of transport, infrastructure quality, wear and tear on houses, concentration of companies or shops in the streets is a sign of smart planning of administration and decision-making of the city. Smart cities, therefore, consist of smart administration and smart inhabitants, technologies are just an instrument[395].

[395] Today, the field of using smart technologies in city management and development is concentrated in three main areas: 1) smart buildings, 2) transport systems and 3) technical, energy and digital infrastructures. Recently, however, there has been an infiltration of this trend also into the area of management (Svítek, Postránecký et al. 2018, or also Widmann 2012).

At this stage of plan development, the interaction of political representation and the city administration is also largely needed. Also needed are high levels of knowledge and education of people in these control layers of the city. It is therefore appropriate if the work of officials is set up not to generate "right" solutions, but alternatives that the self-government will decide after considering a wider time frame and other contexts.

Finally, in the case of a large city, the third step of the feedback loop – action – becomes the creation, approval and basis for the subsequent implementation of the document itself, which we named the City Development Strategy (III). This moment of the city's decision is the beginning of further elaboration of the lower-level goals and strategies set out therein in

the necessary details, according to which the lower management levels of the city will subsequently act.

These objectives of the lower hierarchical level should include also priorities concerning the city space and construction processes. The City Development Strategy should include, apart from other things, also a map of the city territory; or a future map of the city or, better yet, a map of the future condition of the city. And we will focus on this spatial part of the City Development Strategy in the next chapter.

The map of the future appearance of the city is called the Territorial Development Strategy. It should show where the new residents will live and realize themselves.

The current land-use plans of Czech cities are anything but initiating development documents.

In Prague, it is pointless to have the Principles of Territorial Development and at the same time a land-use plan for the same territory.

In the Czech Republic, comprehensive policy reform and especially reforms for methods of territorial development are increasingly needed.

In Prague, it would be better to make decisions on territorial development without a land-use plan.

Only stable structures can be planned in a big city at today's fast pace. In this specific territory, these consist of a street network and blocks.

18. Development of the city's territory

It is advisable to give some name to the part of the City Development Strategy related to the territory or space of the city in accordance with the definition of terms from the previous chapters. Jiří Novotný, a prominent Czech architect and urban planner of the second half of the 20th century, contemplates in his memoirs[396] the title "territorial charter". However, in accordance with the modern concept of planning theory, the City Development Strategy seems more appropriate. It is necessary to place or directly accommodate the intended and targeted population and related activities somewhere in the city space, which makes building activity one of the city's key priorities. Conversely, the development of the city can be assessed with sufficient objectivity on the basis of the construction activity in the city[397].

What is today called spatial planning in the Czech Republic should roughly correspond to the development strategy of the city. Unfortunately, this is not much the case either in terms of content or in terms of meaning as well as in the terminology used. Let's start with that now.

The wording land-use planning, which has been translated into the Czech language as a literal translation of the German Gebietsplannung, still quite corresponds to its meaning. However, the term territory planning would be more appropriate, which would better reflect the substance of planning, i.e. the preparation for possible variants of the development of the territory in the future.

Likewise, two out of the three basic land-use planning documents in the Czech Republic also correspond well to development-supporting documents[398]. Unfortunately, these are the ones that are less emphasized in the land-use planning process in the Czech Republic. The least detailed Principles of Territorial Development of the Region, which have the word "development" also in their name, really try to be a certain outline of the concept or framework of further planning process of the territory. They set out the basic requirements for efficient use of the territory of the region and define areas and corridors of

396 Novotný (2002), p. 62

397 The so-called crane index is also designed in this way (e.g. Kolomatsky 2018).

398 Act No. 183/2006 Coll. – Land Use Planning Act and Building Code

supra-local significance in order to verify the possibilities of their use to date. However, and this is very important, both the detail of the actual processing and the methodology of the Territorial Development Principles of individual regions differ considerably.

Similarly – although the other way around – it is possible to view also the most detailed Regulatory Plan of a part of a municipality or a town. From the previous chapters we already know that regulation arises by decision, i.e. by planning. Therefore, if it is necessary to have a detailed map of the future condition, similar to a land-use study, as the last phase before the start of construction in any territory, then it is perfectly okay to call this targeting a Regulatory plan. In practice, however, for many reasons, regulatory plans are, with few exceptions, not created in the Czech Republic.

The situation is different for the third basic land-use planning documentation, for the key land-use planning document in the Czech Republic, which is the land-use plan. That is mandatory by law for all municipalities and towns in the Czech Republic as well as unfortunately not exactly suitably unified and flexible methodology of their creation. The name "land-use plan" is, as in the case of "land-use planning", literally taken from the German language – Gebietsplan. That improperly swaps the meaning of the word plan as a map with the meaning of plan as a strategy. The spatial component of that phrase is provided by the concept of "territory". Unfortunately, the certain specific meaning of the "Czech" land-use plan as well as the essence of the land-use planning process also relate to such a swapped meaning of terms.

The English names of land-use planning documents and processes that seem to be much more appropriate to the primary objective of the city, which is its development, can be a certain inspiration for more meaningful Czech terminology. After all, let us consider for ourselves – the English equivalent of the Czech "land-use planning" is "territory planning", but nothing like "territory plan" exists in the English language, which is entirely in line with our knowledge from the previous two chapters. The terms used are "unitary development plan", the so-called UDP, which is created for a county. Smaller units – towns – have their "land-use plan" literally translated as a plan for the use of land. Finally, for the development of some part of the territory, the term "master plan" – the main, complex plan – is used, the purpose of which is to identify the main elements of the development of the territory in a detailed map. We will see even further that the use of words such as development, land-use and complex (master) has very strong grounds

Scale level	Planning documentation in the Czech Republic	Planning documentation in the UK
Region – district, county	Principles of territorial development	Unitary development plan
City	Land-use plan	Land-use plan
Part of the city	Regulatory plan	Master Plan

TAB. 8 – Scale comparison of spatial planning documentation of the Czech Republic and the UK, source: Urban (2018)

in the effort for the development of the territory. Everything is clearly shown in TAB. 8.

The problem of spatial planning terminology used in the Czech Republic is deeper and does not concern only the names of basic spatial planning documents and processes. The Building Act somewhat avoids many basic and generally understood concepts. Certainly, it must be taken into account that every law is written in a legal language that, more than any other, requires precision and clarity in expression. Yet, it is somewhat surprising that it does not know, for example, the notion of a city. Not even does this exist in the sections on the tasks and objectives of spatial planning[399], where one would more than expect them. Moreover, in spite of the literally mentioned objective of the law – the need to address the development of the territory comprehensively with respect to many factors[400] – the law does not recognize either different population density or built-up areas. The different concentration of population and the resulting socio-economic activities in the territory are not taken into account in the law. Such as, for example, the difference between an urban or suburban area. Last but not least, the most important part and function of land planning – housing – is explicitly mentioned in the law only in one case[401].

The unification of the basic tools of the development of the territory is, of course, understandable from the point of view of the nationwide legislation in the Building Act, because one of the tasks of the whole is always to strive for its uniform internal environment. However, in spite of the fact that this effort is partially mitigated by some sub-legal norms or by various recommendations of the Ministry for Regional Development of the Czech Republic, this situation is not sustainable in the long term in practice and today's fast times. Particularly problematic is the provision that all basic land-use planning documentations – i.e. the aforementioned Regional Development Principles, Land Use Plans as well as Regulatory Plans – are defined by law as binding for decision-making in the territory.

399 referred to in Section 18 and Section 19 of Act No. 183/2006. Coll.

400 Section 18 (2) of Act No. 183/2006. Coll.

401 And still in a very general form; it states that one of the tasks of spatial planning is to set the conditions for the restoration and development of the settlement structure and for the quality of housing (Kuta, Endel 2018).

They are judicially reviewable and are issued in the form of so-called measures of a general nature, which is an administrative act with a specific subject matter, but with a generally defined group of addressees.

This Czech system of spatial planning does not have any parallel in neighboring countries. Both in Germany and Austria, the basic document for decision-making in the territory is the most detailed plan, which is also binding on both residents and builders. Less detailed plans are created and derived from it, which are conceived as conceptual materials for city administrations and for territorial development strategies, and thus not judicially reviewable.

In the Czech Republic, there is a basic and mandatory medium-scale document – land-use plan – for municipalities and towns. In addition, the terminology of the law directs it towards functional zoning, from which already a few decades ago, especially cities in Europe have been diverting[402]. In large cities, in practice, this state of affairs is basically heading towards the phase when it cannot be discussed anymore.

In this respect, the bell has been tolling for the land-use planning system in force in the Czech Republic already for some time. The growing need of big cities to take care of their own development in line with their citizens' wishes and their growing ability to implement this development is really in contrast to the unification tendencies of existing legislation. It is no longer possible to pretend there is no difference between a small village and a large, densely populated city.

Of course, small municipalities need a framework to lean against when considering the development of their territory, and quite possibly a large number of them need help and responsible leadership of the nationwide ministry in this respect. Large cities, however, are able to ensure the development of their territory best themselves and not every rule suited to a small village is suitable for their development.

Certainly, it is necessary to be cautious about any change and not to underestimate the fear of a reform that would compare the situation in the Czech Republic at least with the German system. These are now largely based on the problem of the simultaneous absence of regulatory plans, and therefore the impossibility of transferring regulation to a virtually non-existent level of land-use planning documentation. However, it is this argument that is largely odd. Ways of stopping construction are always more at hand than developing and using appropriate tools for good planning. Every municipality and town in the Czech Republic has a cadastral map at its disposal and minimal change of the Building Act can achieve

[402] From many, neatly summarized e.g. by Řezáč (2014). Jehlík (2015) states that function ceases to be crucial information, the importance of spatial structure is increasing.

a situation where municipalities and towns would be allowed to circle every investment plan with a marker on the map and then discuss it separately on the basis of other rules embodied in other documents and regulations. After all, this is exactly what is happening also in New York City with ten million inhabitants, and that is why there is no reason why it could not happen even in any smaller town.

With the future shift of regulation to a more detailed level of land-use planning documentation, it will also be necessary to change the permit process, which is nowadays mainly made up of zoning and building proceedings carried out within the delegated powers of state administration. However, there is no need to worry about this either, as cities can assess the compliance of each investment project with their Territorial Development Strategy, while, as in other areas, the state remains "only" supervising the compliance of these projects with the protection of the population. In other words, the zoning decision can easily become the responsibility of self-governments of towns and municipalities, while a building permit based on building, sanitation and many other standards providing protection for the population can be provided by the state.

Perhaps, therefore, today, the development of a large city in the Czech Republic would be of the greatest benefit if no land-use plan was created under current Czech legislation and decisions were made (responsibly, i.e. based on a long-term approved strategy also for the protection of valuable territory for the city and other values) in accordance with other sources, such as compulsory and regularly updated territorial analytical materials. Because the development is directed towards greater responsibility of individual towns and villages. Initially, only large cities will be able to meet this responsibility and the small ones will need to be actively assisted by national authorities. However, the reform needs to start from some point. Otherwise, this change will be forced over time by the evolution and continuing concentration process, and it is likely that mistakes will subsequently be made in the rapid development.

That it is already too late for a slow change is evident from the rocketing rise in property prices over the last three years, with some exceptions in all of the largest cities in the Czech Republic, which is now largely attributed to the complex and extremely long process of permitting (not only housing) construction. Although social development always finds its way and houses and housing will always be arranged for people somehow. One can easily imagine the election of some populist leader or directly transforming the democratic

state system into despotism, especially when it comes to problems concerning the fundamental aspects of human life. Young people will not follow historical experience and the lessons about the threat of communism and socialism in the face of having no place to live. And even for cities, the consequences of this journey will be qualitatively worse. In the relatively recent past, we have already addressed the housing crisis by a decision of the state – panel housing estates were established for almost 3 million people in the second half of the 20th century[403].

For the reform to be eventually peaceful and prudent, cities must be prepared for it. Large cities must have building regulations in place to enable them to create a city of short distances in their center, where residents do not need cars and are transported on foot or by public transport. They must therefore have such regulations which will allow, depending on the locality, to work with mandatory, optional or, on the contrary, prohibited parking and garage spaces. And which will also allow the creation of a living parterre, floor or two for administrative purposes and the remaining upper part for housing, especially of families with children[404]. In the Czech Republic, the creation of such separate building regulations is currently allowed by the Building Act only for the area of the capital city of Prague, although the above-written applies to nearly a dozen of the largest cities.

At the same time, given the imminent and necessary reform of land-use planning, cities must have prepared documents for the development of their public spaces, manuals for the development of parks, embankments and other publicly accessible exposed places. In the future, they will increasingly include also cemeteries that have been quite unjustly neglected in the past. In Prague, some of these materials were processed in 2013 and 2014[405]. In other cities in the Czech Republic their creation is underway now or is planned in the near future.

However, above all, in addition to the above-mentioned documents, as part of their Territorial Development Strategy, cities must have a map of their future intended condition based on the targeted number of inhabitants and their density in the future. Conceptual document, not today's land-use plan, but a plan of the future form of the city, according to which the investment projects of the city or private investors will be assessed.

During the 1990s and the first decade of the 21st century, towns and villages in the Czech Republic rather disposed of their property, privatized the housing stock and nowadays they do not shape their development through their own remaining

[403] Panel housing estates (not only) in the Czech Republic are dealt with by Prof. Ing. arch. Michal Kohout from the Faculty of Architecture of the Czech Technical University in Prague, also in the context of their other necessary changes in the future (from many publications e.g. Kohout, Tichý, Tittl et al. 2016).

[404] The new Prague Building Regulations are designed exactly in this way (Hnilička et al. 2016).

[405] these are documents Melková (2013, 2014), Melková, Fialka, Cach (2014)

[406] Němec (2019)

[407] Schantl (ed.) (2016)

[408] Fitzpatrick (2017)

property[406], unlike e.g. the exceptional Vienna, where more than two thirds of inhabitants live in apartments belonging to the city[407], from which Europe now learns quite a lot[408]. Czech cities are able only to regulate their territorial development.

Therefore, the future map of the city cannot contain a precise definition of use, as such ability is already beyond the limits of the decision-making of the city in the Czech Republic. To be useful for something, it must therefore be created as a map of what each part of the territory can handle. Or vice versa, the map of the future condition of the territory of the city must say which places cannot be developed without changing the corresponding infrastructure. The solution is therefore a map of potential burdens on the territory, literally in the English sense of land-use, indicating a plan for the future possible and maximum use of land. In other words, it is a map that determines what can be in the territory. Which is a big difference from the functional use of the territory, preferred by current Czech legislation, ordering what must be in the territory.

The new land-use plan of the capital city of Prague, which is currently under discussion, called the Metropolitan Plan, is thus conceived already in its basic schema. It divides the territory of the capital into about 800 localities (FIG. 33) and assigns each of them to one of four hierarchically arranged levels:

- production areas, logistics areas made up of vast areas into which hundreds of trucks come every day,
- an administrative and residential area that is the starting point or destination of a large number of people every morning or evening in modern, densely populated short-haul cities, and these people are transported best by public transport or on foot,
- recreation areas for relaxation and tranquility,
- area that cannot be developed, more or less cultural landscape made up of natural formations, meadows or forest parks.

Categories are superior to one another. For example, an area able to accommodate a large number of people living and working there can surely handle also the recreational function, etc. Of course, it is assumed that there will be an effort to use the possible burden in the city area as much as possible.

The locations in the Metropolitan Plan are not all intended for development. Outside the areas that cannot be developed, a large part of the built-up areas are stabilized by their urban structure. The Metropolitan Plan therefore mainly deals with

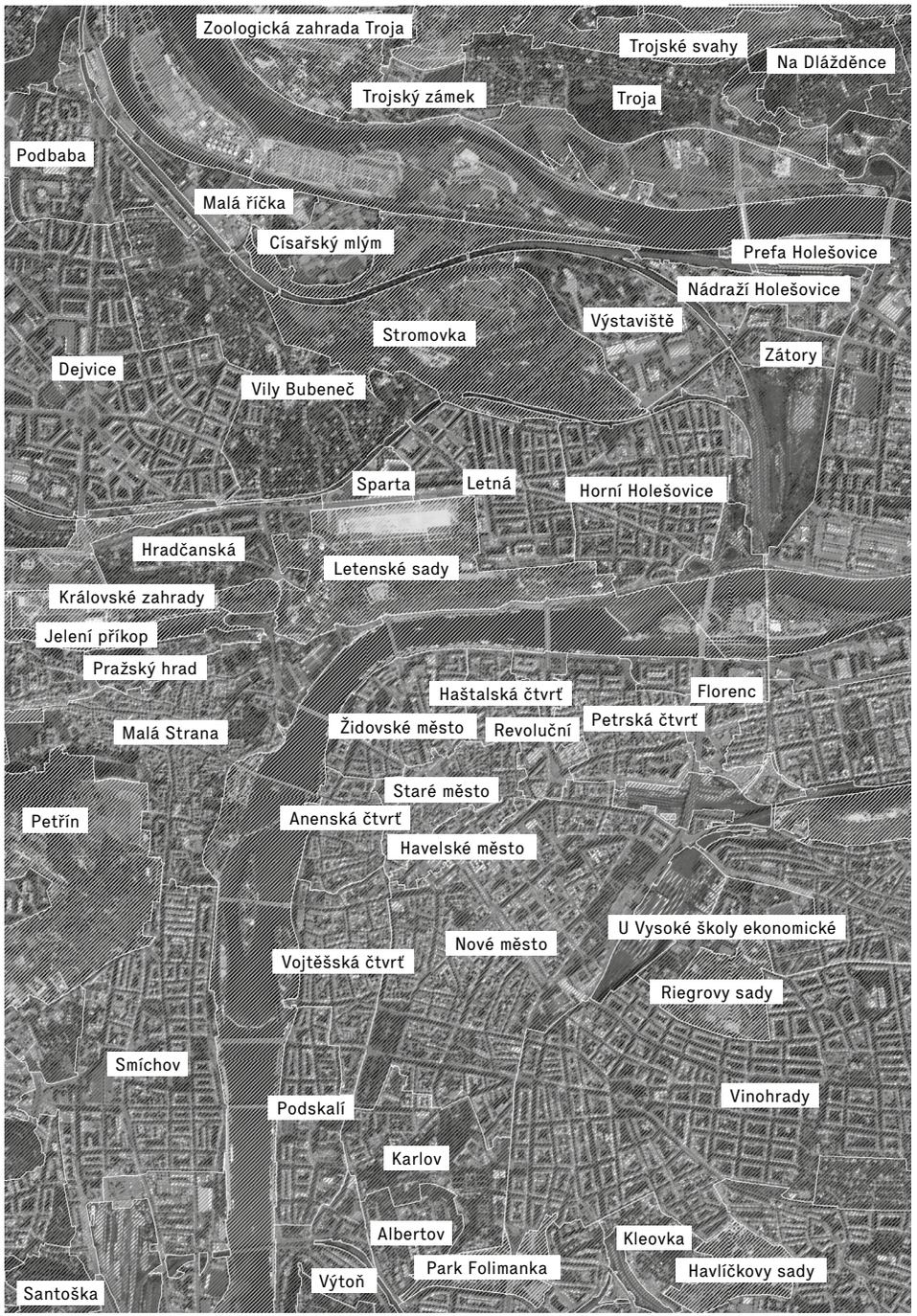


FIG. 33 – Localities defined in the Metropolitan Plan of Prague, source: Koucký et al. (2014)

other areas, the so-called transformation and development areas.

The transformation areas lie inside the compact area of the city and are thus surrounded from all sides and connected to the existing buildings. When creating their concept of development, it is thus possible to remedy shortcomings in the surrounding environment, for example in the street network or in the distribution of public spaces and parks. Development areas lie outside the compact area of the city and therefore the possibilities of their development are to a certain extent wider. FIG. 34 shows the ratio of order and chaos in their development.

In the development of the Metropolitan Plan, both the transformation and development areas were subjected to a multi-factor analysis, assessing, for example, their location in the city, the presence of natural peculiarities, the neighboring urban structure, public infrastructure and many other aspects of development. Each such unstabilized site is thus recommended in the final design to one of the four levels of development according to the maximum possible future burden of the area. According to the Metropolitan Plan, the essence of the strategy for the development of the territory of the capital city of Prague is, as a matter of priority and adequately to possibilities, to fill the transformation (rebuilding) zones which were registered in Prague in 2012 in the total number of 94 with a total area of 1,442 hectares. Of these, 37 are larger than 10 hectares and the largest – Slatiny u Vršovického hřbitova – has even 113 hectares[409].

Thus, the creators of the Metropolitan Plan tried, as ones of the first in the Czech Republic, to look at land-use planning

[409] according to Koucký et al. (2014)

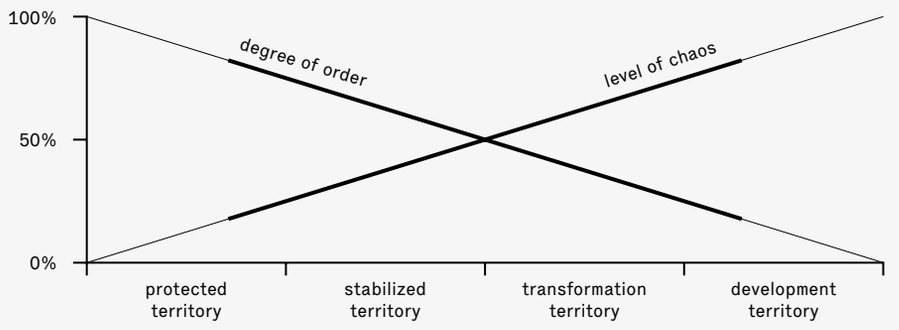


FIG. 34 – The degree of order and chaos in the development of the territory, source: Koucký et al. (2014)

through the prism of a development and conceptual document, not by the specific optics of Czech more or less purely regulatory land-use planning. This is an approach based on the system theory described in the previous sections and chapters, and we will now describe it in broad outline on the next few lines.

Development, as we already know from the previous parts, always uses stabilized structures as the cornerstones for each of its next steps. In the area of the city, the most stable are physical and geographical conditions. Terrain, valleys and hills, river, geological bedrock, localization of the city, slopes and their orientation, climatic conditions, these all are the oldest structures on which the very existence of the city stands and which, according to evolutionary theory, are fundamental inequalities in reality determining future development. Their change is usually almost impossible, or at the cost of extreme expenses. These structures are usually older than the city itself. For the urban organism they are basically a certain systemic environment that influences and regulates the development of the city. It is suitable to use them for the urban composition of the city, for planning new neighborhoods, high-rise houses and landmarks.

The shape and direction of the street network and the network of public spaces are considerably younger, and thus also less, but still very stable structures. In European cities, in their centers and in their vicinity, their stabilized structure of streets and public spaces usually lasts many hundreds of years. Its form is already firmly set on older structures due to the long-term development, and also abraded into a form sufficiently suitable for the life of the city. In other words, while houses are changing, are being rebuilt, demolished and built anew, once the parceling of the streets is carried out, it usually lasts for centuries. The advantage of a well-designed parceling is its versatility and ability to easily adapt to ongoing changes in society.

There were, however, also relatively recent exceptions, such as Hausmann's rebuilding of Parisian boulevards in the century since last, and others[410]. But these were essentially always the consequence of the power of a higher whole – the whole empire. The then administration was based on both the social and economic resources of a larger whole. Cities themselves – at least those in Europe – already lack the will, strength and energy to transform these old and stabilized structures of theirs. Moreover, and this may seem even partially surprising, even the cities that were severely damaged after World War II, and let's mention at least London or

[410] Major transformations of European cities in modern history are summarized e.g. by Geurtsen (2009).

Dresden, did not change their street network[411]. On the contrary, they restored its original appearance, in the case of Dresden in its center even the exterior appearance of the houses themselves. Spatial structures of cities are stabilized not only in space but also within social and cultural structures. People thus do not like demolition in the city much, they feel they lose certain security that the surrounding area provides. This is, after all, how the conservation movement originated in the 19th century as a reaction to excessive demolition in cities in the 19th century[412]. Today, in western cities, demolitions are not as frequent anymore and, therefore, the question is whether it is not necessary to reconsider the extent of this kind of protectionism, which – whether we want it or not – will always be somewhat opposed to development[413].

A slightly less stabilized structure in the city is the blocks of houses defined by streets and public spaces. And not accidentally even smaller in scale. Their stability must be assessed on the attributes of these blocks – especially the height of buildings, the number of their floors, the type of roof, the color of the facade and many others. If we stay only with the height now, then, for example, photographs of the historical center of Prague from the end of the 18th and 19th centuries show that the houses in the historic center have grown by two floors on average in 100 years[414]. However, not every city at that time had such a discussion about the preservation of its historical values and immediately beyond the border of the historical core there was a similar situation as in other centers of world events of that time. With regard to the character of the built-up area, the height of the buildings, the appearance and exterior facade, the shape of the roof and other characteristics of the whole blocks or urban complexes, we can speak of a certain constancy in the length of several decades at maximum.

However, what is changing fast and still increasingly faster is the interior of houses and apartments, their functional use. And again, it is no coincidence that this is a lower level of scale. Establishing a company and starting a business on some type of digital device is now possible in one's own apartment from day to day. And this study is likely to be much quieter than the average family with young children. Society-wide developments within a globally interconnected world are continually carrying out small surface non-linearities with people's behavior that can be neither expected nor planned.

The big change is slowly disappearing and is being replaced by an increasing number of small changes. The times when industry or administration with their negative externalities drove people away from factories and work for a long time,

[411] as described e.g. by Hrůza (2014)

[412] This epoch in Prague is described e.g. by Bečková (ed.) (2000).

[413] Apart from other things, also this is what the latest publication of the team of Professor Koucký and the Institute of Planning and Development called *Pražské veduty* (Prague vedutes) (Koucký (ed.) 2018) strives for.

[414] Such a publication seeking to capture the difference between 1898 and 1998 through photographs of the same place in Prague is the book called *Praha letem po sto letech* (Prague in flight after one hundred years) (Bárta et al. 2006), pp. 12–13, 24–25, 98–99, 106–107 and others.

and thus fixed the internal functions of apartments and houses into the three categories set out in the Athens Charter – i.e. housing, work, and recreation – are already gone. Today, hygiene limits, including noise limits, have created a situation in which industrial sites need to be protected from housing rather than vice versa.

The Metropolitan Plan works with the above-described stability of structures. It focuses on scale levels and structures that the city is still able to transform, but which at the same time are not subject to rapid non-linear change to which any planning is short. This level includes the ranking of the area according to its maximum possible load, height regulation (in meters or floors), a detailed description of the character of the development in individual locations, delimitation of the street network, public spaces and parks, possible location of high-rise landmarks in transformation and development zones, etc. Our ability to plan in the territory is perhaps best illustrated in the comparison of the plan of Prague's Dejvice elaborated by the architect A. Engel in 1920 with the current state of the given area, as shown in FIG. 35.

However, what should be stated in conclusion: The essence of the Territorial Development Strategy, and thus also of the Metropolitan Plan, should soon become the standard for at least all large cities, given the inevitably approaching reform of land-use planning in the Czech Republic. However, the largest ones – therefore, apart from Prague also Brno or Ostrava – should aim even further today, as urban development, together with the development of the complexity of society, will be subject to increasingly demanding challenges.

Planning can always be done well only within linear development, where we know the causes and consequences well. However, the science of cities has sufficiently advanced and, therefore, today we can use planning also for example where we know the probable course even of a non-linear development (e.g. from the situation in other cities). For example, today we already know that roughly with population density values of 100 inhabitants per hectare and a suitably chosen urban structure, people start to get out of cars[415]. However, it is no longer possible to apply simple calculation methods typical for the creation of contemporary plans to such modeling involving phase transitions. The territory needs to be solved simultaneously in its detail as well as when integrated into a larger whole, either the whole city or agglomeration. A slight change in one parameter, such as commuting or the number of people driving cars, can make a big difference in the functioning of the whole model. A static map, such as a land-use

[415] More and in various connotations this connection is mentioned e.g. by the engineers of Zurich Technology Dietmar Eberle and Eberhard Tröger (Eberle, Tröger 2015) comparing various urban structures and their specifics in the city, or better, important transport experts Peter Newman and Jeffrey Kenworthy, dealing with, apart from other things, the relationship of transport, size and density of cities for more than 30 years (e.g. Newman, Kenworthy 2015).

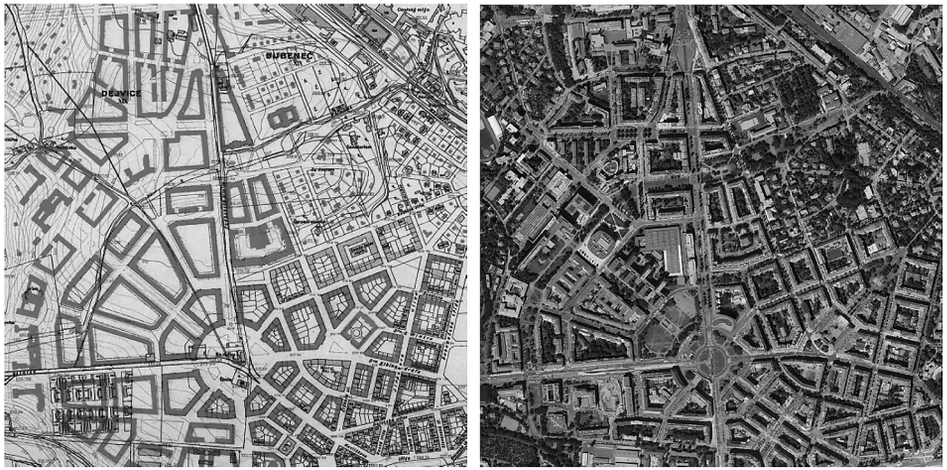


FIG. 35 – A. Engel's development plan from 1920 and the real state after almost a hundred years in Prague – Dejvice, source: Koucký et al. (2014)

plan, is increasingly insufficient for the rapid development of complexity in our world and, with it, also the cities, especially the big ones.

A functional Urban development strategy, especially for the largest cities, will increasingly have to be developed as a dynamic digital model of the city. Sooner or later, the methods of computer modeling of cities will come into play, which will be somewhat similar to today's method in the construction industry known as BIM (Building Information Modeling), for cities thus best described as the so-called CIM – City Information Modeling. In the case of a well-set model, this method will enable the city administration to weigh all development plans competently, to visualize their impacts online, or, on the contrary, to show the narrow bottlenecks of existing infrastructure networks, including the familiar and already explored non-linearities in urban development. It is now a bit of a challenge to see which of the big cities in the Czech Republic will be the first to do something like this.

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Tomáš Hudeček is an always hungry intellectual omnivore: any knowledge within his reach must be alert. One can be afraid to watch whether he will manage it, capture it and process it. However, he is coping well with it! And splendidly! I am convinced that in this country there is no one else who is able (and always willing) to tell us so many useful and necessary things for the management of cities. Moreover, in the range from abstract reflections to specific acts forged in the political scuffle. And one more thing: this is a book by a truly brave man. Thanks.

Jan Jehlík, prof., Czech Technical University

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