

UNIVERSITIES AND CITIES

FINAL STUDY

The outcome of the project New Visions of Urban Politics





















From 14th to 16th May, Olomouc hosted a conference *New visions of urban politics* the aim of which was to show examples of successful co-operation between cities and universities in Western Europe as well as projects and initiatives facilitating a more effective participation of the citizens in urban development and decision-making. The conference was financially supported by The International Visegrad Fund, Fridrich-Ebert-Stiftung, Palacký University and the city of Olomouc, who supported the conference.

The representatives of the universities and the municipalities of Innsbruck (Tilmann Märk), Aalborg (Sven Caspersen), Olomouc (Josef Jařab), and Bochum (Lars Tata) pointed out to the difficulties of building co-operation with the municipalities, but also shared numerous successes of such co-operation.

The second part of the conference was focused on the successful projects of civic participation.

The final study intends to summarize the most interesting findings, opinions and insights that were presented at the conference.

In the first part the author tries to define the university city from the theoretical perspective as a subject of urban studies. The author presents historical development of relationships between university and cities, but also existing models of engagement of universities with their communities.

In the second part called *Town & Gown – The View of the Heads of Universities* there are inspiring presentations of three university rectors, who describe the development of relationship between their universities and cities and current models of cooperation.

In the following chapter *Universities and Cities. Patterns of cooperation for sustainable growth,* Olomouc and Bochum are presented. In case of the city Olomouc the relationship of the citizens to university and their engagement in public affairs is analysed. The case of the project UniverCity in Bochum is an example of effective cooperation between town and university.

We hope that this study will be inspiration for other towns and universities which would like to develop and strengthen their mutual cooperation.

Civipolis, o.p.s.

PARTNERSHIP BETWEEN UNIVERSITIES AND CITIES. A THEORETICAL PERSPECTIVE

The city is the subject of a study of urban geography – a discipline not defined in terms of subject but rather in terms of place. This allows it to explore places from different points of view, drawing on economic geography, social geography or transport geography.

The discipline of urban geography is characterised by a holistic approach, taking in all aspects of urban life. Not all geographers dealing with the urban environment to identify themselves as urban geographers. Many come from different domains that are interested in only one facet of the urban environment, for example in transport networks (Mulíček, 2010).

An interest in universities and the academic sphere is not exclusive to a single discipline. Instead, there is an overlapping of several disciplines. The basic approaches, however, stem from three strands of thinking about universities – the university as part of the educational system, the university as an economic entity, and the university as a community of people; particularly of students.

Within the approach that looks at universities as educational institutions, authors have dealt with questions such as the development of an educational system (Trow 1974), its territorial distribution (Ryba 1971) or the principles of determining optimal university locations (Schofer 1975).

In another perspective, the university is viewed as an economic entity. Studies by Elliott et al. (1988) and Sigfried et al. (2005) deal with high-level issues, suggesting ways of measuring the impact of universities on the economy. Other authors dealt with various sub-areas such as the involvement of universities in the knowledge economy (Conceição, Heitor 1999; Leydesdorff 2004; Metcalfe 2010), technology transfer (Lee 1999; Mowery 2004) or linkages between universities and the private sector (Westheat, Storey 1995; Etzkoviz 1998; Perkmann, Walsh-2007).

The most frequently debated topic recently has been the role of science parks and business incubators (see Vedovello, 1997; Link & Scott, 2003; or Ratinho & Henriques, 2009). This subject clearly belongs in the domain of economics, but intersects with geography by way of regional economic development and local case studies.

The research interest in institutions of higher education as communities of people which differ from other localities has its origins in social sciences. Authors within this strand were mostly interested in the student community, which gained significance with the massification (the practice of making luxury products available to the mass market) of higher education in the second half of the 20th century. Many of the topics are closely related to social geography so much so that Smith (2009), for example, grouped them under the umbrella of 'student geographies' (Smith 2009: 1795). The geographical research within these studies concentrates on the questions of mobility at different levels and on the impact of student populations on communities. The influx of young people to a university town and their out-migration after graduation were studied by Duke-Williams (2009) and Cuney (2005). The ratio between

students leaving their hometowns to attend universities and those studying in their hometowns has changed as an effect of the democratisation of higher education. The differences between these groups are described by Holdsworth (2008, 2009).

The international dimension of student mobility was studied by Tremblay (2001) and Waters (2009) and in the European context by Maiworm & Teichler (1996) and Mechtenberg & Strausz (2008). The study of the student community within the urban context has proved a very productive research subject. The impact of students on the city was studied by e.g. Allison (2006) and Munro (2009). As the number of students increased, certain pain points, especially housing, and the impact of students on particular communities, became apparent. Studentification as a form of gentrification was studied by Hubbard (2008, 2009), Chatterton (1999) and Smith (2005, 2008); housing issues were studied by Christine (2002). All the three approaches share the view of universities as agents of regional development. This aspect was accentuated by Goddard & Chatterton (1999), Van den Berg & Russo (2003) and Arbo & Benneworth (2007).

Towards a definition of a university town

The basic definition of a university town as a town that possesses a university is somewhat problematic. While the university and the city have been studied by a great number of authors, research on university towns is scarce. A seminal work on this subject was published by Edmund William Gilbert (1961) who set out to compare selected West-German towns with Oxford and Cambridge. He came to the conclusion that only a few of the studied communities were true university towns that possessed a special atmosphere and a university at their core: St Andrews in Scotland and, to a limited extent, Cambridge and Marburg. The rest of the localities could be called cities with universities or cities with a high presence of the higher education sector. This situation is attributable to the rapid development of the areas surrounding universities during industrialisation. Universities thus became only one of the many facets of their cities. According to Gilbert, cities may be divided into university towns, cities with a university and non-university cities. Other authors, for example Gumprecht (2003) and Larkham (2000) honoured this distinction in their studies of specific aspects of the relationship between universities and cities.

Due to the ambiguousness of the definition of a 'university town', other typologies are rarely found. One of the reasons could be that both universities and cities can be classified according to a large number of criteria which may not be correlated. If a university town were to be taken as a city with a university presence, the number of combinations would be exceedingly large.

Universities can differ in size, specialisation, ranking, location within a city, and other characteristics. Similar categories can be applied to cities as well. Nevertheless, we can identify two basic university models with different historical backgrounds and important implications for the relationship between universities and cities. The older model, typical of Europe, is represented by universities embedded within cities. The more recent model is based on the campus or college town concept and has its origins in the United States from where it spread to other parts of the world.

Studies of the college town concept were published by Gumprecht (2003, 2007, 2008). The author gives a working definition of a college town as a community or place with a major

presence of an institution of higher education which has an impact on the whole community. A college town, at the same time, must not be a state capital or a part of a metropolitan area. From a statistical standpoint, for a city to be classified as a college town, the local institution of higher education must, Gumprecht says, 'be the biggest employer in the city.' The author cites other auxiliary criteria such as the ratio of student enrolment to the overall population of the city or the proportion of the workforce employed in education. The impact of institutions of higher education on their communities is so significant that Gumprecht (2003) proposes to classify college towns according to such college characteristics as national rankings, specialisation, student catchment area or the level of control over student life by the university. These questions are dealt with in more detail in the part *Campus, college and college town*. The above classification criteria for college towns could, with some modifications also be applied to the European model where universities form parts of cities. The impact of particular institutions on the surrounding communities would generally be lower.

Larkham's (2000) subject is not the university town as such, but rather university development as an important element of urban design. Based on a survey of the historical development of British universities, he suggests three basic university models - the campus, colonisation and dispersion. A special category is reserved for the traditional model of a university town, which according to the author includes only Cambridge, St Andrews and Oxford, i.e. those cases where a university and its city have evolved side by side over a long period of time. The campus model resembles the aforementioned American college tradition. The model describes the foundation or relocation of a university to an urban fringe or completely outside a city to a restricted site. The other two categories describe universities that form parts of their cities. In the colonisation model, a university addresses a scarcity of space by the incremental purchase of plots surrounding the buildings it already owns. This behaviour presupposes a continuous interest on the part of the university in certain properties and plots which should ideally be purchased when their value decreases. After the purchase, the existing properties are either adapted or redeveloped. After some time, a university district or a discrete campus can be created. The dispersed model depicts universities that are scattered in different properties throughout a city. The individual buildings vary in quality and age. Consequently, managing such a system is difficult and costly. For this reason, such universities often embark on adaptation projects or opt for one of the aforementioned models. The development of universities and cities show us that none of the three models is viable in the long term, so universities frequently switch from one to another.

Historical development of universities and relationships between them and cities

Cities arose in response to social differentiation, specialisation and new demands that could not be met in earlier types of settlement. As the economic, religious and, above all, administrative functions developed, a need arose for general and specialised education provisions to city dwellers. Various educational institutions and schools were established, becoming integral parts of the urban fabric. The general education level always depended on how advanced a particular society was, so education and school systems went through periods of rise and decline. In antiquity, particularly in Ancient Rome, there were three tiers of schooling crowned by the rhetor level which consisted in private tuition provided by orators. This final form of education was available only in large cities.

The Roman system of education disappeared from Europe along with the decline of Roman culture at the beginning of the Early Middle Ages. The role of the keeper and propagator of education and culture was newly assumed by church institutions, above all by monasteries. This led to the creation of a system that was inward-looking and not interested in communicating with the wider community. The main purpose of monasteries was to serve God and make preparations for salvation. To this end, selected skills were maintained and cultivated. Medieval monasteries in both rural areas and cities were characterised by isolation and self-containment.

As societies became more advanced, cathedral schools and universities started to emerge in the 12th and 13th centuries. The first universities were founded in important cities like Bologna, Paris and Oxford. Unlike schools under church management, these institutions communicated with the wider community right from the start. Apart from job opportunities for graduates, cities offered safety and support for students, teachers and the educational institutions as such. A case in point is the founding of the University of Cambridge in response to the curtailment of support for students by the Bishop of Oxford.

A high student and teacher mobility was one basic feature of early universities. The emergent institutions were not socially or territorially defined. Students received education funding from benefactors and paid for tuition themselves. Similarly, teachers used the money they earned to rent facilities for instruction and to purchase teaching aids. This, among other things, led to universities becoming autonomous agents independent of the ruler, the aristocracy or the church. Cities soon realised the advantages of a student and teacher presence and began actively supporting the formation of new universities. Still, cities were not powerful enough to influence the functioning of these institutions which had their own management and rules. The 14th and 15th centuries saw the rise of university colleges. Those were, in effect, foundations managed by powerful nobles, the church or by the ruler himself, supporting selected students. The formation of colleges led to a certain separation of students and universities from cities, which was underscored by the monastic layout of college buildings. The college model was largely preserved in Oxford and Cambridge from where it spread to other parts of the world from the 1650s onwards (for example, to the United States).

The advent of the centralised state in the early modern period spelled a change in the status of universities. The autonomy of all institutions (with the exception of the ruler) was curtailed. Speaking of education, this meant the abolishment of university privileges and the implementation of a centralised model of education funding. The state took advantage of age-old animosities between universities and the church and between students and town residents to push through with these changes. In spite of that, the number of universities steadily grew and reached approximately 170 around the year 1700. The number of students also increased. Up until the second half of the 18th century, the academic sphere maintained close links with local communities where teachers engaged in practical professional activities in their capacities as physicians, lawyers and priests or took up various roles in local public institutions. By the same token, students had to try to establish good relationships with cities and local authorities before or during their studies if they wanted to practice their profession there in the future (Brockliss 2000).

The first significant step in the evolution of universities from medieval to modern institutions came in the form of the Prussian (or Humboldtian) model of university education at the end of the 18th century. Universities were no longer expected to preserve and propagate the existing order of things. Apart from education, which was to be universal and secular,

universities were newly tasked with conducting scientific research into new areas of human knowledge along rationalist lines. Universities also played an important role in the rise of nationalism and were encouraged in this respect by the state. University education became a matter of prestige. Although students enjoyed the same civil rights as others, they constituted an elite group within society. Some authors (Delanty 2002; Goddard 2008) argue that universities shifted their focus to the national/state level and broke off their links with the surrounding regions and cities. This assertion is countered by Bocklisse (2000) who suggests that the development of scientific research and the institutions that accommodated it, e.g. hospitals and laboratories, led to an improvement of local conditions. Academics were invited as authorities to help resolve local issues.

The changes that accompanied the Enlightenment were followed by more changes brought on by the Industrial Revolution. Among those, the most significant were shifts in the territorial distribution of universities as smaller institutions in shrinking towns were closed and new ones were founded in large administrative centres. This was followed by a surge of universities of a new kind founded by powerful entrepreneurs or rapidly developing cities. These new universities did not provide traditional education. Instead, they concentrated on education and research in certain sectors of industry or agriculture. They were characterised by practicality, focus on the application of new research findings and pragmatic development planning. Their founders often held sway and were able to adapt the institutions to their needs. Thanks to this, vital links were forged between universities and the local economy and related sectors. At the general level, higher education became more diversified as different kinds of study programmes were offered (Brockliss 2000; Delanty 2002).

The Enlightenment approach to education and the needs engendered by the Industrial Revolution in the 19th century laid the foundations of modern universities. Attending a university became a natural part of the education of young members of upper classes and a source of prestige. Representatives of nation-states in the first half of the 20th century were well aware of the possibilities of harnessing the influence and scientific potential of higher education and research facilities. Universities and higher educational institutions were therefore gradually moved from the remit of private or local public institutions to the remit of central governments. These measures led to a sharp decline in the relationships between institutions and their cities. Universities were no longer required to react to local issues (Goddard 2008). The new requirements also resulted in changes to the physical structure of universities. As the scientific and research activity intensified, institutions needed specially adapted facilities and libraries. More demands were placed on the design of buildings. Urban universities transformed from haphazard collections of multi-purpose rooms into systems of territorially dispersed structures with specific functions in different architectural forms (Brockliss 2000).

The second wave of significant changes to universities occurred in connection with state interventions after World War II. Higher education was included in the regional economic development policy, which played an important role in determining the location of new institutions as well as in the decentralisation of education and funding. These efforts were

¹ The specific names of these schools are a reflection of this. In the English-speaking world, these are most often referred to as civic universities; in the United States as land-grant universities; in the United Kingdom as red-brick universities and polytechnics; in German-speaking countries as *Technische Hochschule*.

directed towards the equalisation of interregional differences rather than towards local development support. Ultimately, they led to a massification of higher education, a trend that emerged in the United States and began to spread to the rest of the world at the end of the 1950s. 'Massification' in this sense means the opening of higher education to a larger portion of society. The most visible manifestation of this process was the rapid surge in the number of students, who are the lifeblood of any institution of higher education. More changes triggered directly or indirectly by massification followed closely, for example, the formation of new universities and satellite facilities, expansion of existing institutions, changes in the selection of study programmes, changes in student demographics, etc.

The impact of higher educational institutions on their communities also increased. Until then, the number of academic staff and students in any university town was in the thousands; after massification, it reached tens of thousands. The only exception to this trend was the American concept of a college town (Russo 2003). At the end of the 1960s, universities underwent a radical change towards democratisation, progressivism, social engagement and openness to new thoughts. The strict positivism of the 19th century with its exactitude and emphasis on the law of nature was outmoded (Delanty 2002). All this was reflected in the relationship between universities and cities. As universities grew bigger, certain long-standing problems, e.g. student housing, became much more acute, while new pains – such as increased traffic – emerged.

A turning point in the relationship between universities and the state came at the end of the 1970s. The earlier regional policy proved ineffectual as far as education funding and new university development were concerned. Although institutions of higher education were territorially dispersed, large universities had been strengthened at the same time. This pointed to a possible influence of a powerful lobby or the simple fact that small and new institutions could hardly compete with long-established universities. This disproportion was most plainly visible in the field of research. The existing system suffered another blow from deindustrialisation. Old industrial cities went into a slump and their higher educational institutions soon started deteriorating too. The universities which were hit the hardest were those that were focused on traditional industries; however, other institutions were not without their troubles.

A new conception emerged with the onset of conservatism in the 1980s. The government ceased to fund the university system as a global whole and started to allocate money based on the performance of individual institutions. Universities were encouraged to obtain additional sources of funding through cooperation with private firms, especially small and medium-sized enterprises in the service sector or in the field of new technologies. To accommodate such firms, technology and science parks were constructed in the vicinity of universities.

Universities located in cities with a large presence of declining sectors of industry were encouraged to develop study programmes with a focus on progressive technologies. While local authorities had previously seen the benefits of universities in the influx of state money and young people, they now turned their attention to collaboration with industry. Higher education became an important factor in the economic development of cities (Goddard 2008).

Due to globalisation, the competition in the tertiary education sector intensified. Institutions of higher education were forced to compete against each other for state and private funds. To this end, they sought to commercialise their intellectual property and set up spin-off

companies² and joint projects with the private sector. Universities evolved into entrepreneurial entities. Scientific research was de-emphasised in favour of innovation, in other words, basic research was eclipsed by applied research. A premium was placed on the applicability of the acquired knowledge and on lifelong learning. Some universities started to engage with representatives of the private sector while others prepared new study programmes in cooperation with large companies. From a regional development standpoint, the connectedness and interplay between universities, the private sector and the public sector at both institutional and physical levels is of the utmost importance. At the institutional level, this purpose is served by numerous associations, clusters and collaboration platforms; at the physical level, by technology parks and business incubators that aim to facilitate the formation of new entrepreneurial ventures and their entry into the market. All these activities are directed towards the development of a knowledge economy (Benneworth 2006).

In an attempt to increase the competitiveness of human capital, some countries in the 1990s chose to consolidate the various types of university programmes into a single model. A case in point is Great Britain where non-university institutions of higher education were promoted to universities. On the one hand, the higher education system became less fragmented, but on the other hand, for example polytechnics, i.e. institutions that specialised in technical education in fields of interest to the local industrial base, was moved from the remit of the local government to the remit of the national government (Hall 1996). The integration of systems of higher education has also been promoted by the European Union in an effort to establish a common area for higher education. The purpose of the Bologna declaration (1999) is the adoption of a unified system of higher education that promotes education and student mobility and improves the chances of graduates on the labour market. Together with the development of a knowledge economy, the Bologna Process is one of the key instruments of the EU's long-term strategies, the Lisbon Strategy (2000) and Europe 2020 (2010).

Campus, college and college town

The development of universities as described above is largely specific to Europe. However, beginning in the second half of the 17th century, universities were established in other parts of the world as well, especially in North America. The first institution of this kind in the United States was Harvard College, founded in 1636 near Boston. The choice of a rural location was not accidental. The founders thought of the city as a place of sin and depravity, whereas education represented purity and virtue. For this reason, they decided to build in a gentle and peaceful rural location. It is not without significance that most of the founders had studied at Cambridge, which possesses an extensive system of colleges. The institution they created was cloistered, highly independent and hostile to the city. Harvard College laid the foundations of the campus model – a restricted area that hosts all student activities, including habitation.

Subsequent universities and colleges were built on the same pattern as self-contained units at urban fringes or out in the country. Campuses are surrounded by small towns (college towns) that serve the college population. After the US had gained independence from Great Britain, there was a boom in new universities that persisted throughout the 19th century due to

² A spin-off company is a start-up company that seeks to commercialise the intellectual property or specific research results of a university or research institution on the basis of a licence agreement. The university (research institution) may hold shares in such a venture (Preclík 2009).

the ongoing urbanisation. The resultant dense network of college towns was without precedent in history. According to Gumprecht (2003), a number of factors contributed to this: the synchronous development of cities; the size and heterogeneity of the country – a university was supposed to be conveniently located and every community wanted one; concept reduplication – there were no specific requirements, so a campus could be constructed in any locale; ideology – every city aspired to become the new world's beacon of learnedness; and last but not least, lobbying – small cities often tried hard to win state support in order to establish a college, whereas big cities had other priorities too. The boom of institutions of higher education was not without casualties. According to Schofer (1975), up to 9 out of 10 newly founded colleges were closed in the early years of the US due to a lack of students. College towns have always differed from other US towns within the same population size range. Apart from having a university campus at its core, they are characterised by a specific demographic composition, higher price levels and a cosmopolitan and vibrant atmosphere.

College towns have typical urban and functional attributes. They are centred (notionally or in actuality) on a university campus, a large restricted area that contains teaching and research facilities, high-capacity student residences, sports grounds, recreational venues and leisure centres. In a way, it is a town within a town. A campus plays host to many sporting, cultural and social events of regional and supra-regional calibre. Besides buildings and purposebuilt areas, a campus also usually contains large landscaped public spaces. Another feature of college towns are neighbourhoods heavily populated by students and teachers. The massification of higher education rendered on-campus housing insufficient, forcing students to take residence elsewhere. This situation was taken advantage of by the private sector and especially by speculators who rented out old houses. American cities soon witnessed the rise of student ghettos with typical problems like rowdyism and noise. Fraternities and sororities, which can be considered types of communal living, are another feature of college towns. Life in these communities involves many rituals, social events and parties. These communities tend to concentrate in specific off-campus areas, known as fraternity rows.

The commercial sector also responded to the specific demographic composition of college towns. College towns typically contain high concentrations of certain kinds of shops and recreational venues, for example bookshops, record shops, exotic restaurants and bars. A high concentration of potential consumers coupled with the insufficient supply of services within the town has often led to the establishment in the proximity of the campus, of a large shopping and recreational centre or district catering to the students. The calibre of the cultural and sporting events in a college town is usually much higher than in other cities within the same population size range. This is best exemplified by universities that have elite sports teams and huge stadiums that seat tens of thousands of spectators. The most recent feature of college towns are science parks that house private research and manufacturing companies with direct or indirect links to the university. The college is central to the college town so much so that town life practically comes to a standstill during bank holidays and in university vacation periods (Gumprecht 2003).

The college town model is found almost exclusively in the United States. It was adopted to a limited extent in Canada and Australia, i.e. countries with a similar historical development. By the same token, the traditional American college campus model took root predominantly in English-speaking countries. In the Europe of the 19th and the beginning of the 20th century, there was virtually no need to develop universities on greenfield sites as there already had been a network of long-established universities in cities. Cities, as hubs of industry, were also the only

places that could generate demand for new educational institutions. Large campuses emerged only after WWII in connection with the massification of higher education and the efforts to move universities out of city centres. However, most of the relocations were cases of moving several university facilities to one location at city fringes or developments of new urban districts with a dominant educational function (Brockliss 2000).

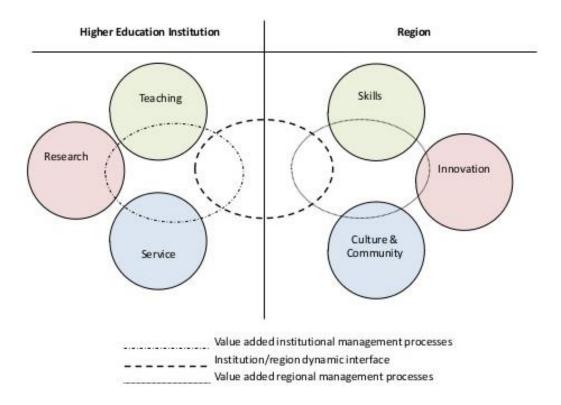
Models of engagement of universities with their communities

As already suggested, since the 1980s emphasis has been put on the collaboration between universities and the private sector. Beginning in the 1990s, efforts were made to forge links between universities and local public institutions. The idea was to create a network of linkages connecting all the local players in order to enhance the development of the whole region or city. According to Goddard (2008), institutions of higher education in particular: contribute to or play an important role in regional development by generating income in the form of taxes and duties; (co-)establish new companies and collaborate in growing existing businesses; increase the attractiveness of the city/region from the global perspective and help to attract investment; through graduates and lifelong learning develop and strengthen the human capital in the region; support the local cultural life. Universities, on the other hand, require the following from their communities: support for the development of science and research programmes; help in attracting applicants from the region and further afield; additional funding in the form of payment for services the university provides to other sectors as part of its consultancy and training functions; creating an attractive environment for students and academic staff.

A model of the involvement of universities in regional structures was suggested by Goddard & Chatterton (1999) (Figure 2). An institution of higher education is expected to strive toward a synergy between its three basic missions – teaching, research and serving the community. This should result in well-functioning regional structures that generate capabilities and skills, innovations and cultural and community life. Universities and their communities share an interest in the collaboration of removing barriers and promoting development.

Figure 2: Involvement of an institution of higher education in regional structures (based on Goddard & Chatterton 1999).

Chatterton & Goddard (2000)



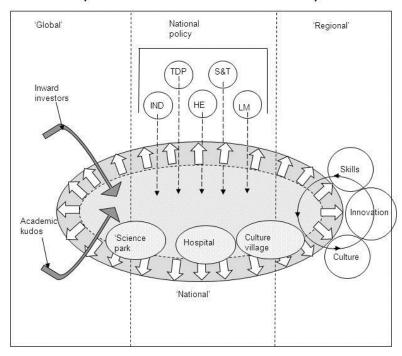
As players in regional development, universities are not independent; rather, they are subject to numerous external influences. At the national level, they are bound by various governmental policies (education, economic, labour, regional, social, science and research and others) and by the legal framework defined by the law. At the global level, they are influenced by the international academic community that determines the prestige of individual institutions.

External investments are another important factor in the development of universities because they connect local structures to national and global ones. Such linkages also strengthen other entities which are directly or indirectly dependent on the higher education sector, for example science parks, university hospitals and cultural districts. A state-funded university hospital can, for example, implement the results of international research in the treatment of local patients. Details of this multilevel model by Arbo & Benneworth (2007) are given in Figure 3.

Figure 3: Multilevel model of the involvement of an institution of higher education in regional economic development (based on Arbo & Benneworth 2007)

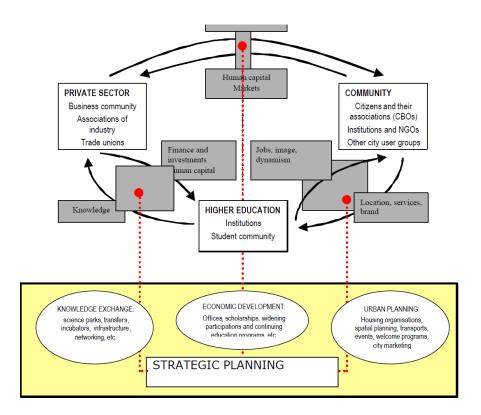
The regionally engaged multi-modal and multiscalar university

(after Arbo and Benneworth)



The role of institutions of higher education in urban development with regard to strategic planning is the subject of a study by Van den Berg & Russo (2003). The authors see the city as a magnet that draws universities and research facilities, which in turn increase the attractiveness of the city for residents, investors, tourists and other clients. There is a virtuous circle of mutually reinforcing relationships. In order for institutions of higher education to become drivers of growth within this model, the relationships among all the players must be well-balanced, as depicted in Figure 4.

Figure 4: The role of institutions of higher education in urban development with regard to strategic planning (based on Van den Berg & Russo, 2003)



In this model, the higher education sector maintains direct links with the private sector through the process of knowledge transfer. Universities provide firms with specific know-how and expertise through out-licensing and training as well as through expert consultancy. The latter represents another source of income that can be invested in teaching. It also gives universities the practical experience they generally lack.

The relationship between institutions of higher education and the local community is determined by locational factors as well. Like other institutions, universities use the urban infrastructure and consume services. On the other hand, they provide services and jobs for local people. A less visible aspect of these relationships is the creation of an attractive space that the university infuses with a dynamism and vibrancy while the city provides it with tradition, stability and a sense of place. Even the last side of the triangle, i.e. the link between the local community and the private sector, indirectly benefits from institutions of higher education. Universities, above all, contribute to the general development of the human capital and enhance the innovative capacity of the region, improving the competitiveness of existing firms and helping to attract new ones. This process feeds back to the universities. This loop cannot function well if only institutions are involved. The engagement of individual stakeholders, i.e. students, academic staff and the community, is vital, because a solid network of links can be established only at the lower levels. It is therefore incumbent on local authorities to develop strategic plans that embrace all of these areas.

A model of a university town

As stated above, there is no unequivocal and universally accepted definition of a university town. On the other hand, universities and their impact on communities have been described from many points of view. With the advent of the knowledge economy, new technologies and changes in the higher education landscape, the idea that universities should engage with regional development processes has gained traction. By virtue of the natural concentration of universities in cities, such notions can help us better to define a working model of a university town. For this reason, we will draw on Van den Berg & Russo's (2003) model depicted in Figure 4. The university town is no longer understood as 'a place with a specific atmosphere that sets it apart from other places' (to paraphrase Gumprecht), an atmosphere that is difficult to pin down. The basic definition must describe the position of the higher education sector. The university will play one of the key roles, if not the main one, and it will influence all other aspects of town life. However, for a town to be considered a university town in the modern sense of the word, its basic components - public sector, private sector and universities - have to be interconnected. In this model, no institutions exist in a bubble, impervious to what goes on around them. Links should be forged not only at the institutional level represented by public authorities, universities and private firms, but also at the personal level between students and local communities. The model we have in mind does not presuppose smooth, harmonious relationships among the players. Instead, we suggest a space where conflicts can be resolved and the potential of collaboration can be realised. For this reason, the continuation of this study will - besides describing the present situation – be concerned with the level of interconnectedness within the university town or region.

A strong science and research base has a great impact on the university town. Although there may be cities that contain only teaching-focused universities, such cases are rather rare nowadays and cannot be considered ideal. Universities have been engaged in scientific activities since the 19th century, attracting other science and research institutions to set up shop in their proximity. In an economy based on knowledge, cities with research universities have gained an edge over their competitors. A functional university town should be able to support the formation, development and integration of research facilities and centres which may not be a part of the higher education sector, but are closely connected to it or complement it.

Petr Hudeček

References

- Allison, J. (2006). Over-educated, over-exuberant and over here? The impact of students on cities. *Planning Practice & Research*, *21*(1), 79–94.
- Arbo, P., & Benneworth, P. (2007). Understanding the regional contribution of higher education institutions: A literature review. *OECD Education Working Paper*, 9.
- Benneworth, P., et al. (2006). *Tying down the 'global' in the competitive knowledge economy: university-city interactions.* Newcastle: Newcastle University.
- Brocliss, L. (2000). Gown and Town: The University and the City in Europe. 1200–2000. *Minerva,* 38(2), 147–70.
- Conceição, P., & Heitor, M. V. (1999). On the role of the university in the knowledge economy. *Science and Public Policy*, *26*(1), 37–51.

- Cuney, F. (2005). Student mobility: the case of university students from Franche-Comte. *Espace-Populations-Sociétés*, *3*, 443–452.
- Delanty, G. (2002). The Governance of Universities: What is the Role of the University in the Knowledge Society? *Canadian Journal of Sociology, 27*(2), 185–98.
- Duke-Williams, O. (2009). The geographies of student migration in the UK. *Environment and Planning A*, 41(8), 1826–1848.
- Elliott, S. (1988). Measuring the Economic Impact of Institutions of Higher Education. *Research in Higher Education*, *28*(1), 17–33.
- Etzkovitz, H. (1998). The norms of entrepreneurial science: cognitive effects of the new university-industry linkages. *Research Policy*, *27*, 823–833.
- Gilbert, E. W. (1961). The University Town in England and West Germany. In *Research paper No.* 71. Chicago, IL: University of Chicago, Dept. of Geography.
- Goddard, J., & Chatterton, P. (1999). Regional economic development agencies and the knowledge economy: harnessing the potential of universities. *Environment and Planning C*, *17*, 685–699.
- Goddard, J. (11 March 2008). The Role of the University in the Development of its City and Region. Lecture conducted from Newcastle University, Newcastle.
- Gumprecht, G. (2003). The American College Town. *The Geographical Review*, 93(1), 51–80.
- Gumprecht, G. (2007). The campus as a public space in the American college town. *Journal of Historical Geography*, *33*(1), 72–103.
- Gumprecht, G. (2008). *The American College Town.* Amherst, MA: University of Massachusetts Press.
- Hall, P. & Allison, J. (1997). The university and the city. *GeoJournal*, 41(4), 301–309.
- Holdsworth, C. (2008). Between two worlds: local students in higher education and 'scouse'/student identities. *Population, Space and Place, 15*, 225–237.
- Holdsworth, C. (2009). Going away to uni': mobility, modernity, and independence of English higher education students. *Environment and Planning A*, 41(8), 1849–1864.
- Hubbard. P. (2008). Regulating the social impacts of studentification: a Loughborough case study. *Environment and Planning A, 40*(2), 323–341.
- Hubbard, P. (2009). Geographies of studentification and purpose-built student accommodation: leading separate lives? *Environment and Planning A*, *41*(8), 1903–1923.
- Chatterton, P. (1999). University students and city centres: the formation of exclusive geographies. *Geoforum*, *30*, 117–133.
- Christine, H., et al. (2002). Accommodating students. *Journal of Youth Studies*, 5, 209–235.
- Larkham, P. J. (2000). Institutions and urban form the example of universities. *Urban Morphology*, 4(2), 63–77.
- Lee, Y. S. (1999). 'Technology transfer' and the research university: a search for the boundaries of university-industry collaboration. *Research Policy*, *25*, 843–863.
- Link, A. N., & Sott, J. T. (2003). U.S. Science parks: the diffusion of an innovation and its effects on the academic missions of universities. *International Journal of Industrial Organization*, 23, 1326–1356.
- Leydessdorf, L. (2004). The university-industry knowledge relationship: Analyzing patents and the science base of technologies. *Journal of the American Society for Information Science and Technology*, 65(11), 991–1001.
- Maiworm, F., & Teichler, U. (1996). *Study Abroad and Early Career: Experiences of Former Erasmus Students*. London: Jessica Kingsley Publishers.

- Mechtenberg, L., & Strausz, R. (2008). The Bologna process: how student mobility affects multicultural skills and educational quality. *International Tax and Public Finance, 15*(2), 109–130.
- Metcalfe, J. S. (2010). University and Business Relations: Connecting the Knowledge Economy. *Minerva*, 48, 5–33
- Mowery, D. C., et al. (2004). 'Ivory Tower' and Industrial Innovation: University-Industry Technology Transfer Before and After the Bayh-Dole Act. Stanford, CA: Stanford University Press.
- Mulíček, O. (2010). *Geografie města. Geografie měst úvod.* PřF MU, Brno. [Study materials for the subject].
- Munro, M., et al. (2009). Students in cities: a preliminary analysis of their patterns and effects. *Environment and Planning A, 41*(8), 1805–1925.
- Perkmann, M., & Walsh, K. (2007). University-industry relationships and open innovation: Towards a research agenda. *International Journal of Management Reviews*, *9*(4), 259–280.
- Preclík, P. (2009). Spin-off firmy propojují univerzitní výzkum s komerční praxí. *Muni.cz.*Retrieved from http://info.muni.cz/index.php?option=com_content&task=view&id=1313&Itemid=91.
- Ratinho, T., & Henriques, E. (2009). The role of science parks and business incubators in converging countries: Evidence from Portugal. *Technovation*, *30*, 278–290.
- Ryba, R. H. (1971). The Geography of Education and Educational Planning. Paper presented at the XXII. International Geographical Congress, Quebec (1–7).
- Russo, A., et al. (2003). The Student City Strategic Planning for Student Communities in EU Cities. Paper presented at the 43rd European Congress of the Regional Science Association, Jyväskylä.
- Sigfried, J. J., et al. (2005). The economic impact of colleges and universities. *Economics of Education Review*, *26*(5), 546–558.
- Schofer, J. P. (1975). Determining Optimal College Locations. *Higher Education*, *4*, 227–232.
- Smith, P. D. (2005). Studentification: the gentrification factory? In R. Atkinson, & G. Bridge (Eds.), *The New Urban Colonialism: Gentrification in a Global Context* (72–89). London: Routledge.
- Smith, P. D. (2008). The politics of studentification and '(un)balanced' urban populations: lessons for gentrification and sustainable communities? *Urban Studies*, *45*, 2541–2564.
- Smith, P. D. (2009). 'Student geographies', urban restructuring, and the expansion of higher education. Environment and Planning A, 41(8), 1795–1804.
- Tremblay, K. (2001). Student Mobility between and towards OECD Countries: A Comparative Analysis. In *International Mobility of the Highly Skilled* (39-67). Paris: OECD.
- Trow, M. (1997). Problems in transition from elite to mass higher education. In *Teorie vzdělávání ve vyspělých zemích: vývoj a současnost*. Praha: Středisko vzdělávací poltiky, PaedF UK.
- Van den Berg, L. Russo, A. P. (2003). *The Student City. Strategic Planning for Student Communities in EU Cities.* Vienna: European Regional Science Association.
- Vedovello, C., & Allison, J. (1997). Science parks and university-industry interaction: geographical proximity between the agents as a driving force. *Technovation*, *17*(9), 491–502.
- Waters, J. L. (2009). In pursuit of scarcity: transnational students, 'employability', and the MBA. *Environment and Planning A, 41*(8), 1865–1873.
- Westheat, P., & Storey, D. J. (1995). Links Between Higher Education Institutions and High Technology Firms. *Omega*, *23*(4), 345–360.

TOWN & GOWN — THE VIEW OF THE HEADS OF UNIVERSITIES

Prof. Josef Jařab, Palacký University in Olomouc

Professor Josef Jařab, a leading philologist who gave lectures at Harvard and Oregon Universities, was the first post-communist rector of Palacky University, As rector he led Palacky University, which currently comprises 8 faculties and has approximately 24,000 students, from 1990 to 1997. It is believed that Olomouc, located in the region of Moravia and with 120,000 inhabitants, could be a suitable candidate to aspire to being a university town.

The collaboration between Palacky University and the City of Olomouc is a unique case and very different from the others, both Innsbruck and Aalborg Universities, as a result of the era of communism in the country, which lasted for decades. In comparison, the closer cooperation between the leaders of the City of Olomouc and the University was launched later and became an important issue after the Velvet Revolution in 1989. Having started at the Czech universities, the process spread among the students and spilled over into the theatres, as well as the media. With the collapse of the regime, the first thing that needed to be solved was how to build an educational system in the newly-developing democratic Czech state at the beginning of the 1990s.

Professor Jařab found it essential to build such an institutional system, together with the revitalisation of the University, right after taking office. However, that could not have been done without the demilitarisation of the city, since Olomouc was occupied by Soviet troops. With a total of 35,000 soldiers still in the city, the most urgent thing, as well as one of the greatest challenges, was to make them leave. The very dramatic situation became stable in June 1991, when the Soviet troops decided to depart. Even though this was still rather the result of an effort by the university, the city was supportive. In this sense, the relationship with the city was "very good but after three or four years, it got infected by different thoughts," says Prof. Jařab.

In order to ensure a good relationship with the municipality, people from Palacky University got involved in community politics. "It does help a great deal," explains Prof. Jařab, who became a member of Civic Forum and got a chance to be a representative of the City in the Senate. Nevertheless, the effort had to go further since meetings between the Mayor of Olomouc and the Rector would not have been sufficient. Having thought about different activities, Prof. Jařab started to bring the city and the university together. There were public events every 2-3 weeks for five years, including free courses, discussions and meetings with writers and scientists. Being regularly visited by approximately 300 people, the University was "open for the town and the town did come," claims Prof. Jařab. Moreover, people started to come up with ideas on how to continue with this programme and "the Town felt that the programme was a gift to them from the university". According to Prof. Jařab, this incredible idea created a very important precedent, and that is the feeling that "the city and the university are one idea and have a common future." Nowadays, Palacky University organises a Children's University Project, as well as a University of the Third Age for seniors. Because of their direct and specific purposes, both projects became very popular and well-attended too.

Obviously, there are also problems that make the collaboration of the University and City difficult. In the case of the Czech Republic it is a phenomenon that every town wants to have a university. Although these institutions lack libraries, research potential etc., they get financed from the very limited budget for higher education the country already has. This is an issue the regions and cities in the Czech Republic need to face in order to establish successful relationships with colleges or universities.

Rector Tilmann Märk, The University of Innsbruck

The University of Innsbruck's Rector, Professor Tilmann Märk, is a physicist, who has worked at the Universities of Salzburg, Bratislava, Belgrade, Constance and Penn State University. The University consists of 16 faculties that are attended by 27,846 students and they certainly have a strong influence on the City of Innsbruck, which has a population of 121,791. According to the 2011 statistics, there are 244 students per 1000 inhabitants. The university thus plays an enormous role in the city, as well as the region, in fields such as research, development and education. Considering this fact, the university shapes the city socially, intellectually and economically since the financial power of the university students, academic staff and administration is counted at 1 billion euro annually. Furthermore, the successes of the university also attract new enterprises and businesses. That certainly makes Innsbruck a *university town*, with the highest student population in Austria nowadays.

Without any doubts, Rector Märk considers universities in cities or towns as a challenge for cooperation. "There is a need for cohabitation that will assure success...it does not come naturally; you have to work at it," claims Märk. The greatest problems could be a lack of communication, especially about the results or achievements of the university, to both the public and municipal councils. Universities are also taken for granted by cities and thus there is a strong need for awareness between cities and universities. Public relations and common projects within the municipality could be the right way to collaborate and achieve a successful relationship. Having this experience, Innsbruck University, together with the City Council of Innsbruck, is working on a number of significant projects; among the many of these, the Botanic Garden is one of the most popular. Run by Innsbruck University in a suburb of Innsbruck, the Garden is open to the public and was renovated in 2013 with funding from the City of Innsbruck. As for cultural outreach, the City of Innsbruck, under the academic patronage of Innsbruck University, gives away 10,000 books for free every year with the aim of encouraging people to read and get involved with literature.

The support from the Innsbruck city authorities tends to be financial and it often takes the form of a city tax refund via a university fund. Nevertheless, Innsbruck University also belongs among the leading institutions in the region; therefore it gets important support from the State of Tyrol. The region is very open to suggestions from the university and this allows the institution to "act in the province and also for the province," claims Märk. To give an example, Innsbruck University received four million euro from the Tyrolean Research Fund for the support of fundamental and applied research and is cooperating on a technology initiative.

To conclude, according to Prof. Märk, there are four essential prerequisites for successful cooperation between cities and universities. The first is a method of awareness-raising that aims at groups of the population, as well as the city authorities, since universities must be perceived as crucial factors in urban development. Moreover, Rector Märk talks about joint projects, such

as celebrations of the anniversary of the city. Shared values and events, together with personal relationships between the university and the mayor and members of other authorities of the city, remain very important factors; without them collaboration would not be feasible.

Rektor Sven Caspersen, the University of Aalborg

Rector Sven Caspersen from the University of Aalborg, which currently has 20,000 students, 2100 faculty members and 1400 support staff, introduced the very interesting idea of *EuniverCities*, covering the issue of the collaboration between the university and the city. Aalborg, with its population of 200,000 people, has been working closely with the university since its foundation in 1974 and it actually stood behind ten years of strong political lobbying on the Government to establish a university in the region. From this point of view, the collaboration was a logical step. However, both the city and the university decided to take an active role and also enter into close collaboration with partners outside the university, which could be business partners, unions, and public institutions.

When analysing the issue of cooperation between cities and universities, Prof. Caspersen defined three phases that shaped the collaboration between Aalborg and Aalborg University. First, because there was so much scepticism, Contact Committees were set up to work with businesses, trade unions, public institutions, and all the sectors in society and there were several hundred people sitting on the committees. There was a dialogue on the agenda where disagreements between bodies became valuable and led to constructive thinking. Second, it seemed essential to create institutions; in the case of Aalborg, one was, for instance, NOVI, the North Jutland Science Park, founded in 1985, which is an initiative for graduates and comprises 100 companies, primarily in the hi-tech sector. Other examples include the Centre Network and Science Shop, both very successful projects. The third and final phase, called "Strategic Partnership", is a concept based on mutual acceptance; "the university is an engine of growth and inspiration for the city, region, business etc." Universities are regions' most important assets when it comes to maintaining and attracting knowledge-based enterprises. Strong universities with extensive industrial collaboration work like a magnet for enterprises competing for innovation and highly educated manpower. Furthermore, universities are important partners when it comes to transferring new knowledge to the traditional industries. Without these assets the cooperation would not have been as significant.

According to Prof. Caspersen, "through these phases we have been able to create a culture that made it possible." Obviously, there are many reasons behind the success of the cooperation between the City and University of Aalborg. It has been feasible because "all the parties have accepted that it is crucial for us to collaborate." Moreover, the ties between the City and University created higher growth and new jobs and helped to innovate, develop and compete. Nevertheless, Aalborg University also counts on strategic partnerships with business, having moved from cooperation between individuals to long-term cooperation between organisations, businesses and municipalities based on shared commitment, responsibility and finally shared benefits. This allows barriers to be broken in developing new technology and bringing knowledge together. The organisation of the relationship relies on steering committees that define focus areas, while working groups delegate and decentralise joint projects to the relevant people.

A relevant question to ask, though, is what that cooperation has brought to the city. Prof. Caspersen says "…enormous influence after 30 years, the University has been pivotal in the region's transformation from a traditional industrial society to a knowledge society characterised by advanced technology companies." The collaboration between the region and the university has brought:

- a changed industrial structure
- a changed educational structure
- changed income level
- new cultural institutions

Some of these outcomes would have happened even with a passive role, but there is "no doubt that the changes have been much more dramatically based on the fact that from the beginning we decided to play a very active role as partner-collaborators in the region and society where we were placed." It was very positively received by politicians and people who worked in organisations and businesses throughout society. Allborg became a leading city in Denmark in terms of a business climate based on a very strong partnership between business, the city and the university.

UNIVERSITIES AND CITIES. PATTERNS OF COOPERATION FOR SUSTAINABLE GROWTH

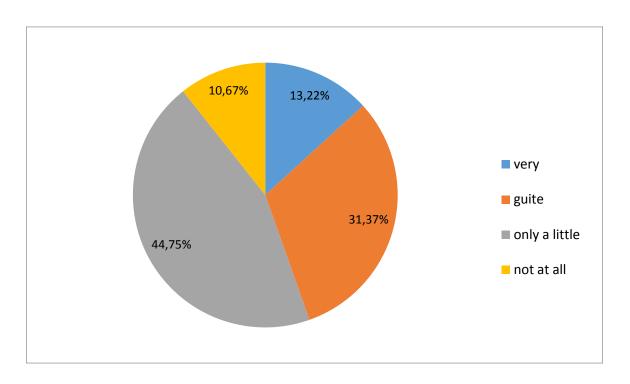
Olomouc as a university city. A survey report

After 1989, several surveys were conducted in Olomouc concerning the direction in which the city was going, as well as other topics (e.g. sports, social issues etc.). The authors of the Survey Report focused on two earlier surveys. In November 1997, the city contracted by the Centre for Empirical Research to hold a survey of 692 respondents, entitled Olomouc Public Policy. It sought to provide politicians with information on the citizens' views of current events, the popularity of politicians, and the political situation and life in the city. In 2009, the Ostrava-based Socio.factor held the survey Opinion Poll on the Zoning Plan and Quality of Life in Olomouc, largely as background material for the zoning plan. The two surveys were designed differently and both followed slightly different goals. The first survey aimed to understand the citizens' opinions on politics, the main problems of the city, and the support of political parties, while the other mainly concentrated on the zoning plan, but its authors also inquired about selected current problems of the city. Another objective of the present text is to survey citizens' attitudes to current issues, their opinions on the quality of life, satisfaction with selected investment projects, turnout at cultural institutions and sport venues, and also what they thought of their city. Twenty five years after the revolution, the major investment projects have been implemented, the basic infrastructure has been built, institutions have established themselves, and the future direction of the political representation will focus more on improving the quality of life, which is a fundamental variable determining citizens' satisfaction with life in their city. One of our key questions examined opinions on what attributes best symbolize the city in the eyes of the residents.

The survey operated with basic central variables to build its quota: sex, age, and education, and we also took into account the respondents' residence. The quota was formulated based on the results of the Population and Housing Census of 2011. We addressed a total of 1,003 respondents in April and May, and the remaining data for the quota were collected in early June. Of the respondents, 46.7% were male and 53.3% female.

The basic question for us was: 'How interested are you in Olomouc public life?' Along with learning whether the respondent voted or did not vote in the 2010 municipal elections, the response shows whether the respondent is active or inactive in relation to the social and political life of the city. Nearly half of the respondents (45%) are very or quite interested in Olomouc public life. Proactive approach and interest in public affairs are a key requirement for local democracy.

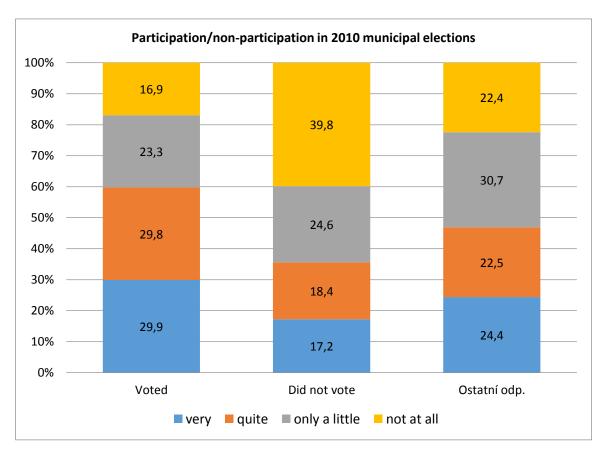
Chart 1: Interest in public affairs



Source: 2014 Olomouc Citizen Attitude Survey

Chart 2 shows how interested in public affairs are those who participated in the 2010 municipal elections.

Chart 2: Participation/non-participation in municipal elections and interest in public affairs



Source: 2014 Olomouc Citizen Attitude Survey

As expected, Chart 2 shows that voting in municipal elections leads to increased interest in Olomouc public affairs. Of the respondents who voted in 2010, 60% are interested in public affairs. The number of those who did not vote in this election and are interested in public affairs (again, a sum of 'very' and 'quite' answers) is lower, only 35%.

Satisfaction with selected city-related topics

Table 1: Satisfaction within specific spheres of life in Olomouc

Satisfaction with:	N	Minimum	Maximum	Average
public transport	932	0	10	7.38
monument preservation	963	0	10	7.37
amount of greenery in the city	988	0	10	7.04
overall appearance of the Lower Square	955	0	10	6.94
overall city development	985	0	10	6.94
the number and quality of playgrounds	734	0	10	6.65

the quality of the environment in the city	961	0	10	6.63
and its surroundings				
how clean the city is	993	0	10	6.56
anti-flood measures	660	0	10	6.41
Olomouc security situation	963	0	10	5.86
the availability of information about the	725	0	10	5.85
work of the municipality				
noise level in Olomouc	951	0	10	5.59
pavement conditions	989	0	10	5.52
the frequency of late night public transport	631	0	10	5.48
illumination of the Upper Square	847	0	10	5.31
the availability of information about the	643	0	10	4.91
work of elected officials				
construction of high-rise buildings	953	0	10	4.83
gambling venues (slot machines)	888	0	10	2.69

A scale of 0 to 10, with 0 indicating "complete dissatisfaction" and 10 indicating "complete satisfaction".

Source: 2014 Olomouc Citizen Attitude Survey

Table 1 shows answers to the question surveying citizens' satisfaction with specific spheres of life in Olomouc. The answers are ranked in descending order based on the average values of the statements on given spheres. The spheres with which the Olomouc citizens are most satisfied include public transport, monument conservation, and the amount of greenery in the city. Although the overall satisfaction with public transport in Olomouc is very high, the citizens are significantly less satisfied with late night service frequency. This variable depends on age: lower satisfaction is voiced especially by younger residents of the city. Citizens are also very satisfied with the overall look of the Lower Square and the overall development of the city. In contrast, citizens are least satisfied with the presence of gambling venues in the city and with the construction of high-rise buildings, issues that are a hot topic in the local media.

Table 2: Opinion on specific construction and reconstruction works in Olomouc in the last 20 years

Satisfaction with:	N	Minimum	Maximum	Average
the remodelling of Saint Wenceslas	838	0	10	8.08
Cathedral				
introduction of new tram lines (3, 5)	902	0	10	7.82
the opening of the Olomouc Fort Museum	689	0	10	7.63
redevelopment of the area in front of the	965	0	10	7.48
station				
the opening of the Olomouc Aviation	544	0	10	7.26
Museum				
reconstruction of the Lower Square	974	0	10	7.24
the new building of the Faculty of Science	869	0	10	7.23
(17. listopadu St.)				
reconstruction of the Upper Square	958	0	10	7.10

remodelling of the Galerie Moritz Shopping	966	0	10	6.57
Centre (former Prior)				
the construction of RCO (high-rise building	957	0	10	5.80
at the station)				
the construction of the Šantovka Shopping	969	0	10	5.61
Mall				
the construction of BEA Center Olomouc (a	889	0	10	5.00
new high-rise building near the Envelopa				
area)				

A scale of 0 to 10, with 0 indicating "complete dissatisfaction" and 10 indicating "complete satisfaction"

Source: 2014 Olomouc Citizen Attitude Survey

Table 2 describes the citizens' opinions on specific construction and reconstruction works implemented in Olomouc over the last 20 years. In general, the respondents expressed considerable satisfaction with cultural institutions and the repairs of public buildings and space. The residents maintained a neutral opinion (average value 5) on private projects, such as the Šantovka Shopping Mall and the RCO and BEA buildings. The latter project received the lowest rating. Citizens are also satisfied with the reconstruction of transport infrastructure, particularly with the introduction of new tram lines and the redevelopment of the area in front of the station. High satisfaction with the new tram line correlates with the satisfaction with Olomouc public transport.

Citizens, city and university

The survey also focused on questions related to citizens' perception of Olomouc and on events that are closely connected with the life in the city. We will first focus on the perception of Olomouc. The citizens were presented with a set of 10 statements and asked to comment on how much these attributes symbolized the city for them. Table 3 shows the survey results.

Table 3: Statements symbolizing the city of Olomouc (%)

	Very	A little	Not at all
Historical city	87.9	10.7	1.4
Monuments	86.3	12.7	0.9
University	77.8	19.8	2.5
Culture	71.1	26.4	2.5
Regional capital	62.9	30.4	6.7
Greenery	55.4	39.5	5.1
Church	46.7	31.3	22.1
Football	43.4	33.4	23.2
Hockey	42.7	34.4	22.9
Average city	18.2	37.9	43.9

Source: 2014 Olomouc Citizen Attitude Survey

Table 3 shows the respondents' answers in descending order based on their agreement with the statements presented. Table 3 implies that for most citizens, Olomouc is best symbolized through the attribute 'historical city' (88%), which is followed by 'monuments' (86%) and 'university' (78%). Another important symbol is culture (71%), while Olomouc as the 'regional capital' it lags behind by about eight percentage points. The phrase 'average city' symbolizes Olomouc for only less than a fifth of the respondents. Noteworthy is also the perception of the church as a characteristic aspect of the city. Although Olomouc has an important history with the Church and the city is crammed with major religious monuments, the phrase 'Church' symbolizes the city for only less than half of the respondents. Its position is essentially comparable with the perception of football and hockey.

Table 4 presents the survey findings which concern the attendance of selected events held repeatedly in Olomouc and of the cultural and sport institutions. The citizens were asked whether they had attended the selected activities or events in the last year.

Table 4: Olomouc residents' attendance of events or institutions over the last year (%)

	Yes	No
Christmas market	84.0	16.0
One-time events or concerts on the Upper Square	73.6	26.4
Olomouc zoo	60.1	39.9
Farmers market	58.5	41.5
An exposition or a fair at Flora Exhibition Grounds	55.1	44.9
Metropol Cinema	46.3	53.7
Moravian Theatre	45.4	54.6
Museum of Art	44.7	55.3
Swimming pool	41.5	58.5
Museum of National Art and History	37.6	62.4
Water park	32.4	67.6
A football match at SK Sigma Olomouc	31.2	68.8
Flora Theatre Festival	29.8	70.2
Archdiocesan Museum	29.8	70.2
A hockey match of Mora Olomouc	28.3	71.7
Theatre of Music	25.5	74.5

Source: 2014 Olomouc Citizen Attitude Survey

The citizens reported rather high attendance for selected events and institutions. Although we investigated attendance in the past year, respondents probably covered a longer period of time. For example, because they felt that it is good to have cultural institutions in the city and support them by reporting attendance. The best attended events are those held in the historical city centre, especially the Christmas and farmers' markets (Lower Square) as well as other events organized on the Upper Square. The most popular institution is the Olomouc Zoo. Cultural institutions such as the Metropol Cinema, the Moravian Theatre, and the Museum of Art are also very popular. Worth mentioning are the reported visits to museums, especially the Museum of Art and Museum of National Art and History. In respect to the official attendance statistics that these institutions publish, Olomouc citizens make up a quarter to a half of the total number of visitors for the past year. For example, in 2013, the Museum of Art was visited by 203,000

people, of whom roughly 45,000 were Olomouc citizens, according to the survey. Olomouc Zoo was in 2013 visited by 321,000 people according to the annual report. Based on the survey, 60.1% of citizens (the equivalent of 60,000 people) claimed to have visited the zoo in the past year. Roughly a third of the respondents claimed to have visited the water park, a SK Sigma Olomouc football match (Andrův Stadium), the Flora Theatre Festival, the Archdiocesan Museum, and also a Mora Olomouc hockey game. A quarter of Olomouc citizens went to see a show at the Theatre of Music last year.

Olomouc identity is also perceived through the city's logo, as this, after all, makes an extraordinary marketing tool. The respondents were asked what they thought of the city logo, without having the image to look at. While 26% of the respondents were not familiar with the logo, 14% did not like it and 50% liked it. Approximately 10% of the respondents could not answer the question. The 2009 survey concluded that 'more than one third of the respondents (34.8%) are aware of the look of the new logo of Olomouc'. Of these, a quarter of respondents (24.4%) like the logo and over a tenth of the citizens do not like the logo (10.4%). Nearly two-thirds of the citizens are unaware of the existence of the new logo (65.2%).

The survey also probed the people's awareness of the city government. Citizens were asked whether they knew who the mayor and the coalition parties were. Our survey was conducted after the resignation of Mayor Martin Novotný, who had been elected a Member of Parliament of the Czech Republic and decided to keep only one office. The correct answer (Martin Major) was given by 28% of the respondents. Approximately half of the participants of the survey did not know the name of the mayor.

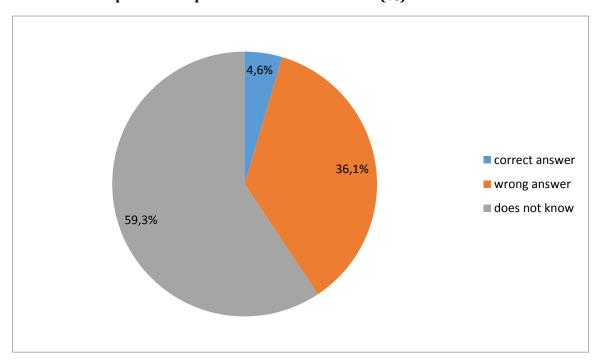


Chart 5: Which parties comprise the Olomouc council? (%)

Source: 2014 Olomouc Citizen Attitude Survey

Chart 5 shows that only a very low percentage of the public is aware of which political parties form the city council. Less than 5% of the population knew the correct answer. Usually they

named two parties (ODS, TOP 09) or believed that the opposition Social Democrats formed part of the coalition.

Conclusion

It is important for the mental image of Olomouc as a university city that it is perceived so also by its citizens, who consider the university one of its main symbols. The new university management adopted an active approach to the notion of the university city, and from this perspective, it is important that the new mayor is Antonín Staněk, who works at the Palacky University in Olomouc. In addition, three representatives of the university are on the city council. The city council has 11 members in total. This identity may be reinforced also thanks to the fact that based on recent *U. S. News* education rankings, Palacky University ranked among 500 best global universities.

Pavel Šaradín, Michal Kuděla, Tomáš Lebeda

UniverCity Bochum: network, brand and concept for Bochum's future

UniverCity Bochum is an association of city, universities and other stakeholders that is unique nationwide. Part of the reason for this exclusive status is the tradition of cooperation among the various universities in Bochum. Since 1998, the Mayor, Lord Mayor, the rectors and the Chancellor of the four universities based in Bochum at that time have met under the slogan "Bochum-high four" for regular discussions. Extended in 2009, the newly founded universities EBZ Business School and School of Health hsg were added to this circle. This was taken as an opportunity to create "UniverCity Bochum", a new format of cooperation designed to promote Bochum. With eight universities, 54,000 students and approximately 10,000 employees (including academic and student assistants), Bochum is the largest university location in the Ruhr region and second largest university city in North Rhine-Westphalia. It is also the seventh largest in Germany overall.

UniverCity Bochum now includes seven universities (Ruhr-University Bochum, Bochum University, Technische Fachhochschule Georg Agricola, Evangelische Fachhochschule Rheinland-Westfalen-Lippe, EBZ Business School, University of Health Sciences, Folkwang University of the Arts), the German Mining Museum Bochum, which functions as the research museum of the Leibniz Association, and four other partners (the City of Bochum, Chamber of Commerce Central Ruhr Region, Academic Promotion Institute, Bochum Marketing GmbH). In November 2011 the network partners agreed on a common mission, which has also earned the unanimous approval of the Bochum City Council. According to this mission, the goal of UniverCity Bochum is to shape Bochum as an outstanding scientific and educational center in the Ruhr Metropolis. To achieve these objectives, the mission goes on to state that partnerships along with implemented policies and measures shall be developed under the umbrella brand of UniverCity Bochum. The networking shall be characterized by the following guiding principles:

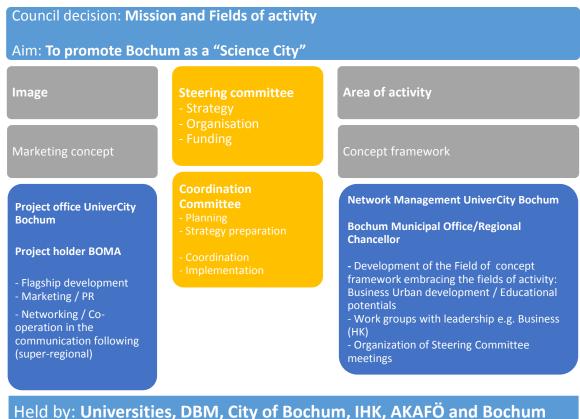
- 1. Bochum distinguishes itself as an outstanding scientific and educational center in the Ruhr Metropolis
- 2. The participating bodies work in partnership at the intersection between the community and institutions of science and education
- 3. We actively take on the challenges of demographic and social changes
- 4. Bochum sees itself as an experiment-friendly city and home to students, researchers, scientists and highly-skilled professionals
- 5. Bochum is an international educational site
- 6. UniverCity Bochum is unique in its range of opportunities

In this context, the City Council has designated the keywords "urban", "economy", "educational potential" and the cross-cutting issue of "internationalization" as the fields of action for UniverCity Bochum.

UniverCity Bochum is simultaneously a network, brand and programmatic approach. The organizational structure of UniverCity Bochum is supported by the Steering Committee and the Coordination Committee, both of which have existed for some time (cf. Figure 1). The steering

committee is made up of the senior management of each partner, and decides on basic organizational and substantive issues. The Coordination Committee is made up of representatives working in the participating institutions at the operational level. On behalf of the steering committee it carries out coordinating functions and implements decisions of the steering committee. In addition, since 2013 UniverCity Bochum has had two "branches". The network management of UniverCity Bochum is located in the "Unit for urban affairs at the mayor's office". Besides networking with relevant stakeholders from both within and outside the municipality, one of the main tasks of the post holder is the programmatic development of the designated approach. Another body has been set up in the "Project Office UniverCity Bochum" in Bochum Marketing GmbH. Here, the post holder is primarily concerned with communication and marketing for UniverCity Bochum and the development and implementation of marketing-related projects. Funding for this site comes proportionately from the municipality and the participating universities.

Figure 1: Organizational structure of UniverCity Bochum



Held by: Universities, DBM, City of Bochum, IHK, AKAFO and Bochum marketing

UniverCity Bochum has embraced a productive and dynamiccharacter. Many marketing activities have been developed in the project office, including in particular the relaunch and maintenance of the UniverCity Bochum site, setting up and maintaining a Facebook account as well as the implementation of a new corporate design for UniverCity Bochum, but also specific

projects like the UniverCity WG, a flagship project that has attracted significant public attention to print media and TV channels in the winter semester of 2013/14. It involves three freshmen sharing a flat in the center of Bochum and reporting regularly for six months through multiple media channels about their adventures and experiences as New Bochum residents . Prior to the commencement of the project, they had to convince a jury with their creative application videos that they were suitable flat-dwellers and deserving winners of the half year of free accommodation included in the program.

The programmatic development of UniverCity Bochum shows particularly in the fact that the conceptual framework "Science City" was presented in its first version in February 2014 as a joint product of UniverCity Bochum, ordered by both the Head and Finance Committees of the City of Bochum at the network management and developed by the steering committee. The Science City Framework defines the status quo of activities at "Science City" in Bochum and is based on the predefined fields of urbanity, business, education opportunities and a welcoming culture, and with its integrated project catalog it can be continually adjusted and updated as a "living" instrument. For the development and implementation of the framework, proactive Science City working groups have been established in which both employees of the municipal government and external experts are involved. One representative of the partners participating in the network always has the lead in each working group (Urbanity: City of Bochum; Business: IHK Middle Ruhr; Academic education opportunities: University Bochum; Internationalization / welcoming culture: Network Management UniverCity Bochum). The overall coordination is the responsibility of the UniverCity Bochum management network.

In addition, the conceptual framework of Science City opens prospects for knowledge-based urban development in Bochum. The realization that such an approach to urban development policy is promising for the future of the city is increasingly widespread; according to a research study ordered on behalf of the Chamber of Commerce and Industry of the Central Ruhr area called "Knowledge produces Science", conducted by the Institute for Applied Innovation Research, the universities in Bochum have already demonstrated an impressive positive effect on the (economic) development of the city. In addition, the facilities available for the production of quantitative and qualitative (academic) knowledge have become a pronounced and unique feature of the city.

In knowledge-based city development it is crucial to pursue an urban development policy that adopts "knowledge" as its main theme. The policy is based primarily on the needs of the "knowledge industry" (universities and other academic institutions, knowledge-based companies, etc.) and provides conditions that promote their development as much as possible. In particular, it aspires to offer location-based conditions that would attract students and scientists, as well as clever and creative people in general, and positively influence their choice of location. They expect the location of their choice - in addition to attractive study programs and attractive job opportunities with good earning potential – to provide freedom for personal development and above all an attractive environment with a high quality of life (including housing, schooling and education, a family-friendly culture and leisure opportunities, mobility, shopping and restaurants). Still, "knowledge workers", which also includes skilled workers as well as artisans and craftsmen, are by no means the sole target group of knowledge-centric urban development. Rather, the aim is to be guided by the needs of this target group in matters of urban development, as their presence in the city benefits other population groups as well, and not only through "secondary" effects on the labor market.

Directing urban development in Bochum to be in closer accordance with the theme of "knowledge" is a challenge for the city as a whole, but also for UniverCity Bochum as a networking and programmatic approach. The issue gains even more momentum from the thesis document "Bochum 4.0", which has recently been launched by the Ruhr-University Bochum in order support their new concept of the "World Factory". The World Factory is a new transfer and start-up concept that incorporates the consistent networking of teaching and research that is connected with industrial development and application. This concept, which is now being supported and developed by all the partners of UniverCity Bochum, was initiated by Ruhr-University Bochum in the wake of Opel's decision to leave the Bochum district and offers a concrete plan for the re-use of the Opel I Factory premises in the Laer district. This example shows that "knowledge" in Bochum is now being respected as the engine of development. Bochum, as so often in its history, has to reinvent itself once again. UniverCity Bochum is a key catalyst and architect of this transformation process. Finally, the success factors of a productive collaboration between science, business and policy management, which is a model practiced within UniverCity Bochum, are listed below:

1. Common interest

The interests of all parties must be served. At the same time however, care must also be taken to provide the largest possible common benefit. In Bochum, everyone from the city through the universities and up to the Chamber of Commerce believes that developing the profile of the city as a location for science will not only benefit the city as a whole, but also the individual partners involved. This belief was stipulated in the abovementioned "Mission".

2. Top priority

Cooperation within the network must be a "top priority". In Bochum, the heads of participating institutions have declared their commitment to UniverCity Bochum. It is also publically expressed in the "Mission", which was signed by the managing representatives.

3. Liability

In addition, the "Mission" also establishes basic liability for UniverCity Bochum. Here the unanimous Council decision on UniverCity Bochum in November 2011 and the unanimous decision of the Budget and Finance Committee of the Bochum City Council in May 2013 must be mentioned as significant factors in its development. Liability also arises from the joint action, especially when the partners are willing to provide resources for joint activities and creating organizational structures. This leads to the next condition on:

4. Commitment and resources

All participants must be prepared to provide commitment and resources; a beneficial coexistence is not for free. Rather, the parties must be willing to contribute staff resources AND funding. In Bochum, this goal is often achieved through the coordination group, which is supported by the highly dedicated employees of the participating institutions. Another example: The senior position in the project office is jointly run by the city of Bochum and the participating

universities.

5. Confidence

Trusting and reliable cooperation is essential. Trust is not established overnight, but must grow through cooperation.

6. Persistence

Cooperation within the network requires a lot of patience. Results and success cannot always be achieved immediately. Therefore it is very important to implement smaller joint activities and also to generate impact on the public.

7. Focus on implementation

This approach requires a healthy amount of perseverance in its implementation. Concepts are good, but paper is known to be patient. UniverCity Bochum has set out to put projects into practice. In many cases we have already succeeded. The Science City Framework does not conflict with this assertion, but rather provides the programmatic lynchpin of individual action-related measures.

8. Laboratory / Experimental character

Success in any venture requires a certain willingness to experiment and undertake risks. Processes are often not yet automatic, routines are lacking, and unknown territory is entered. An excellent example of this is the organizational and work structure established in Bochum. In this case, there is no blueprint. This applies in particular to the project office, where the city and universities participate in the financing. Without the willingness of the partners to try new things and take risks, it would never happen.

9. Clear and efficient structures

This approach requires a clear and effective organizational and work structure. In Bochum, this is made possible via the Steering Committee and the Coordination Committee, which have proven to be workgroups capable of linking partners successfully. This means that the network management and the project office are two operating units that devote their exclusive attention to UniverCity Bochum.

10. Participation, communication, marketing

The public must be involved and "convinced". The goal is to make UniverCity Bochum known throughout the region, which requires audience-oriented marketing. In the field of communication and marketing, major efforts are being made through the UniverCity Bochum Program, indicated by the fact that the project office UniverCity Bochum at Bochum Marketing GmbH was established with a clear marketing mission. The medial flagship project "UniverCity

WG" has recently ensured that not only local, but also national attention has been directed to Bochum as a university and science city.

Lars Tata