

RESEARCH STRATEGY



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Editor

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Preliminary Remarks

Urban and spatial development in the early 21st century is not only characterised by the enormous expansion of urbanised spaces, but also by the heterogeneity of the economic, social and structural transformation of cities and urban regions. To this extent, urbanisation cannot be seen as a unitary phenomenon that gives rise to universally replicable forms of the urban, but has rather to be seen as a phenomenon that displays highly contrasting results in each of its respective regional forms around the world. An – often crisis-ridden and conflictual – process of reorganization and restructuring goes along with the growth of cities. This process gets expressed in a profound transformation of the economic, demographic, socio-spatial, and structural configurations in urbanised regions.

More than ever, urban spatial development is marked by discontinuous and disparate developments and inner contradictions, thus confronting actors in politics, planning and the economy with a high degree of uncertainty and unpredictability. A better causal understanding of these processes is the prerequisite for shaping liveable and sustainable cities and urban spaces.

To this end, the ILS deals with the development of historically evolved, “mature” urban spaces, which – while still exhibiting a basic tendency towards expansion – are subject to an ongoing internal restructuring. Our overriding research objective is to achieve a better understanding of the interaction between higher-level social, economic and technological change, on the one hand, and changes in structural and socio-spatial configurations in cities and urban regions, on the other.

From a development point of view, the structuring impact of political action has special significance in this context. Social liberalisation, economic deregulation, and privatisation of public goods and services have durably transformed the institutional framework of political and planning action. This gets expressed in changed actor and governance arrangements and in a transformation of planning culture. Urban and regional planning is now more growth- and competition-oriented than it was before. At the same time, discursive non-hierarchical forms of governance, which aim at collective self-regulation, have gained in importance. Answering the questions of the extent to which this has changed the modes of action and steering capacities of urban actors and how it affects processes of “city making” is a further key objective of our urban research.

Starting from these guiding objectives, the present 2018+ Research Strategy carries forward the longer-term research perspectives of the ILS. Thematic corridors for the coming years are demarcated and our epistemological stance is being outlined. In the future, the institute will devote greater attention to the heterogeneity of urban change and further develop its internationally comparative perspective. “Think the urban through the diver-

sity of urban experiences” – in this phrase, Jennifer Robinson has aptly expressed the claim to a newer theorisation and thereby to corresponding empirical research. An open, reflexive and self-correcting culture of theoretical and empirical examination presupposes spatial openness, in the sense of an interest in urban development in different world regions. The unveiling of commonalities and diversity in urban development in different locations, while showing the greatest possible sensitivity to the respective contextual conditions, can be described as both mission and ethos of globally-acting comparative research.

Another major concern of urban research in the ILS is the integration of regional studies and urban research which have historically evolved in different disciplinary contexts and, at least in part, have produced little relation to one another. This implies not only interdisciplinary bridge-building between economically oriented regional research and socially as well as planning-oriented urban research, but also a consistently multi-level perspective for empirically addressing urban change. That means thematising the different territorial levels on which socio-economic or structural changes are studied in their interrelations, their mutual interdependencies, their contradictions and also their synergies.

The present 2018+ Research Strategy formulates four main research areas, which will be examined in the next five years by way of both self-financed and externally financed research projects:

- Spatial Development and New Work Environments
- Transformation of Urban Mobility
- Migration and Integration in Urban Neighbourhoods
- Development of Sustainable Built Environments

This thematic structure provides new thematic directions, while, at the same time, preserving continuity with thematic areas in which the ILS is long established. A key concern here is the increased internationalisation of our research, which will be consciously accelerated by taking up international debates and developing international research networks and comparative research designs.

But an urban research that is internationally oriented and visible in this sense still needs a strong regional anchoring. The ILS situates itself in urban research that is basic as well as applied. We are committed to the role of a dialogue partner and provider of impetus for politics, administration, the economy, and the public in both national and regional contexts. New forms of transdisciplinary research come along with this role. The shaping of sustainable and socially inclusive cities can only succeed by way of cooperation between researchers, municipalities and actors from civil society. This is connected to, among other things, new forms of collaborative projects in which researchers and partners from the field of practice have equal input. Our contributions to solving problems of urban society and urban space are, however, always based on knowledge-oriented fundamental research.

The design of this research strategy was elaborated in a broad inhouse discussion process that began in 2016, and it was intensively discussed over the course of 2017 with both the scientific advisory board and the user advisory board of the ILS. The research strategy applies for a period of around five years and it provides the framework for the research programmes to be developed every three years. In this regard, we refer to the 2018-2020 research programme, which emerged in parallel to this research strategy and which takes up substantive impulses from it and develops them in so-called focus projects.

The 2018+ Research Strategy is also connected to the objective of a “semantic purification”: Earlier ILS research strategies distinguished between research areas and research topics assigned to them. Following a further increase in thematic focus, our research will in the future be structured solely by research areas. We hope this will allow us to achieve greater communicative clarity in presenting the core contents of future ILS research both to the research community and to our addressees involved in practice.

1 Thematic Background and Focus

Urbanisation as a Variegated, Disparate and Discontinuous Process

Urbanisation is regarded as one of the most important phenomena of global change. The world finds itself at the beginning of an “urban age” (Burdett/Sudjic 2007) and this fact has elicited highly contradictory responses of society, politics and academia. Starting with the conservative critique of cities in the 19th century (Bahrdt/Herlyn 1998) and up to the most recent critical commentaries on the “explosive” or “uncontrolled” urban growth in countries of the Global South and their supposed “over-urbanisation” (Shandra et al. 2003), ambivalence runs like a guiding thread throughout the debate on urbanisation. Up to today, large cities are seen as focal points of social, economic, cultural, and political change and progress. But they also are regarded as places where social inequality and resource-intensive lifestyles are manifest and inscribed in the built environment. Cities account for a large part of the global resource consumption and of greenhouse gas emissions. At the same time, thanks to their scale- and density-related advantages in efficiency, they offer contributions to answering the great questions concerning the future of humanity (Dodman 2009; OECD 2012; Rybski et al. 2017).

Already today, urbanised areas represent the main organisational form of human societies (WBGU 2016) and this has fundamental implications for economic development and social interaction (Glaeser 2013; Florida et al. 2017). In times of increasingly knowledge-based economies, urban agglomerations and major metropolitan centres are considered as the main places of innovation, since they spatially concentrate actors, talent, knowledge, infrastructure, and capital and thus create productive networks (Bettencourt/West 2010; Florida et al. 2017). The socio-spatial and built physical forms of urban spatial development influence both people's opportunities for participation and their quality of life (Galster 2010), as well as the intensity of resource use (OECD 2010; Rode et al 2014; Næss 2006). One of the key tasks of our time is to design urban areas in an environmentally more sustainable, socially more just, and economically more efficient manner (Rickards et al. 2016).

At the same time, it can be noted that recent processes of expansion and internal restructuring of urbanised areas differ from earlier eras of urbanisation in certain ways (Seto et al. 2010). This concerns, first and foremost, aspects of scale and spatial scope. Many observers address urbanisation as a planetary process which gets expressed in global networks and exchange relations among people, capital, goods and services, resources, and information that can no longer be spatially delimited to particular places and territories (Soja/Kanai 2007; Mace 2013; reference can also be made to the debates on “planetary urbanization” and “extended urbanization”, see, among others, Brenner/Schmid 2014 and Schmid et al. 2018.) Cities and urbanised regions are central nodal points in this process, whose growth and global integration are inherently connected to the restructuring and repositioning of their “hinterland” (Brenner/Schmid 2015).

But the dynamic of urbanisation has also to be distinguished: namely, with respect to the tremendous intensity of urban growth and the degree of spatial concentration of people, economic activities, and physical capital that has been achieved in urbanised areas over time (World Bank 2009; OECD 2016). It has been noted that the main settings of the “urban age” are gradually shifting to the southern hemisphere (United Nations Human Settlements Program 2016) and that this represents a fundamental challenge to the theoretical understanding of “the urban”, which remains primarily based on the experiences of developed Western countries (Robinson 2016; Roy 2009).

Moreover, technological progress and the advanced global integration of goods and service markets change the comparative advantages of urban regions. Next to the ever increasing concentration of knowledge, capital and economic output in metropolitan regions, large disparities between these areas exist. The economic rise of certain regions is usually accompanied by the fall of others (Storper 2013) and this manifests itself in contrasting urbanisation dynamics and the coexistence of growth and decline (Martinez-Fernandez et al. 2016).

Finally, the structure and materiality of the built environment also appears in a new light. This can be seen in dispersed, fragmented, and less dense forms of urban growth, as well as in polycentric and dispersed spatial patterns (Beauregard 2006; Kloosterman/Musterd 2001; Davoudi 2003; Danielzyk et al. 2016) and “mega-urban” development (Florida et al 2008; Ross 2009). In this sense, urbanisation processes are articulated as extensive networks of cities and urban regions, which are marked not only by tight functional interconnections among the individual cities, but also by a pattern of physical merging of the hitherto more rural areas in between them (Soja/Kanai 2007). This sort of restructuring of the urban landscape has often been addressed as a “postmodern” phase of urbanisation (Dear/Flusty 1998). It gets expressed, among other things, in the levelling of centre-periphery gradients and a general loss in significance of centrality (Beauregard 2006).

But urbanisation in the early 21st century is not only characterised by the tremendous intensity of urban growth (United Nations Human Settlements Program 2016), but also by the variegated forms of restructuring in already urbanised areas. As Brenner and Schmid note, urbanisation is not a uniform phenomenon that produces universally replicable forms, but rather one that displays highly contrasting results in different regions around the world (Brenner/Schmid 2014; Brenner/Schmid 2015; Seto et al. 2010). A process of reorganization and restructuring in areas that were already urbanised decades ago goes along with the growth of cities and the emergence of newly urbanized regions. These multifaceted – often crisis-ridden and conflictual – forms of urban change require differentiated and context specific political interventions.

Urban development in the European context and elsewhere is increasingly marked by growth and shrinkage, by valorisation of certain neighbourhoods and concentrations of

poverty elsewhere, by global integration and internal peripheralization, and by high-tech equipping of “smart cities” and serious underinvestment in – particularly infrastructural – construction. All of this is occurring simultaneously or in a tight temporal sequence and frequently in direct spatial proximity as well. Overall, the dominant picture is that of a “diffuse” urban development with different developmental dynamics existing side-by-side on both a small and large scale. Such development gets expressed in, among other things, a polarisation within the urban system and an internal fragmentation of social and spatial patterns in cities. General trends are losing their importance and giving way to a complex simultaneity of re-, sub- and de-urbanisation. More than ever, urban spatial development is marked by disparate developments and internal contradictions, thus confronting actors in politics, planning and business with a high degree of uncertainty and unpredictability. Achieving a better causal understanding of these processes is thus a key concern of the ILS research and an absolute precondition for effectively shaping urban change.

At this background, we deal primarily with the development of historically evolved, “matured” urban areas, which – while still exhibiting a basic tendency toward physical expansion – are subject to an ongoing internal transformation, which is here described as “restructuring”. Our overriding research objective is to better understand the interaction between social change and changes in built physical and socio-spatial structures and, in so doing, to raise questions about the effectiveness of spatial planning. In this way, we are creating knowledge bases for the sustainable development of cities and urban regions.

Four Key Topics of Research

The “2018+” research strategy retains the thematic orientations that have been hitherto adopted in the ILS, but accentuates them with regard to new research targets and, at the same time, brings about a substantive focus on topics with respect to which the ILS has already achieved international visibility in the past. Accordingly, we want to select four, in our view, crucial approaches to issues of urban change that demarcate the conceptual framework for the research areas on which we will work beginning in 2018. These substantive anchors of ILS research are described in greater detail in the following sections.

Spatial Development and New Work Environments

Since its relaunch in 2008, the ILS has been dealing with the location-related mobility of private households and businesses. Studies on the subject explain changes in urban spatial structure as aggregate effects of countless location decisions. In an increasingly knowledge-based economy, location preferences are changing, particularly those of more highly qualified, non-routine activities. This gets expressed in pronounced spatial cluster formation (Larsson 2017). But the residential mobility of private households is also a crucial factor in processes of spatial restructuring (Rees et al. 2017; Dittrich-Wesbuer et al. 2010; Busch 2016; Gatzweiler/Schlömer 2008). Our previous work has dealt with, among other things, the emergence of polycentric spatial patterns and the

“renaissance” of metropolitan cores (Danielzyk et al. 2016; Herfert/Osterhage 2012). But the interaction of economic metropolisation and residential regionalisation has not yet been sufficiently investigated, nor have new processes of merging between the spheres of working and private life. In the future, we would like to deal more intensively with the changing relationship between place of work and place of residence and, in so doing, illuminate the spatial relevance of new forms of self-employment and “urban production”. Emerging forms of gig economy and of crowd-working – as digitally-supported, flexible and largely place-independent models of work in the service sector – are gaining in significance in this connection (Bertelsmann Stiftung 2017). What interests us here are the location-related implications of such new models of employment.

Apart from these processes of relocation and restructuring, we continue to be interested in the increased appearance of highly mobile lifestyles – for instance, those of professionals living in multiple locations or transnational arrangements. At the same time, a great heterogeneity of ways of participating in mobility can be observed. In our future research, we want to focus more strongly on temporary and transnational forms of mobility. Understanding the multi-dimensional decision-making processes of migratory households as a complex person-environment interaction has already been a concern of ILS research in the past and should continue to be so in the future. New emphases are placed here on examining the parallel and socially-differentiated processes of suburbanisation and reurbanisation and the related significance of land and housing markets as intermediate factors.

Transformation of Urban Mobility

Everyday mobility is currently undergoing a multi-dimensional process of change, for which socio-cultural, technological, transportation-related, and political factors are equally responsible. The shift toward alternative energies and the emergence of both new technologies and different forms of ICT-supported mobility bring about changes in both the available transportation infrastructure (Canzler/Wittowsky 2016; United Nations Human Settlements Programme 2013; Agora Verkehrswende 2017) and in the mobility markets. Such changes will influence everyday mobility in urbanised regions. At the same time, we can assume that the restructuring of the transport system will have differing effects in both spatial and social regards. Thus, it is an open question whether an increasingly digitally-supported, networked mobility will exacerbate or attenuate the pronounced disparities between an “urban” mobility and a “suburban-rural” one: for example, with respect to mode choice or vehicle miles travelled.

Here we build on earlier work of the institute that investigated the mobility behaviour of particular social groups in the context of economic, social and technological developments. What is at issue here is understanding the significance of spatial contextual conditions for the explanation of variations in individual transport behaviour and/or the behaviour of particular social groups. Hence, one objective of future ILS research will be to understand better the spatially and socially specific effects of changes in transport

infrastructure and, on this basis, to make recommendations for a both environmentally-sustainable and socially-inclusive mobility and transport policy.

This topic is also of enormous social and political significance, since mobility – here understood as the ability to move independently from one place to another – is an essential requirement for economic and social participation. There is thus a close connection between spatial and social mobility. The extent to which spatial properties play a role as intervening variables and how spatial structures are themselves altered by mobility processes have long been a key concern of our research. We also believe that an integrated perspective on spatial and social mobility can overcome the hitherto clearly drawn borders between the social sciences and transport studies.

Migration and Integration in Urban Neighbourhoods

Another core field of research addresses the spatiality of increasing social inequality on different scales, and particularly the local context. In our research we thus analyse the spatial configurations of exclusion and inclusion in cities. These processes are regarded within the context of the dismantling of the welfare state due to liberalisation and economic deregulation, which have resulted in among other things, “de-collectivisation” (Nachtwey 2016: 109) and the shift of social risks to the individual level. Given the expansion of flexible, low-wage employment, precarious working conditions (ibid.: 13) are now considered to be a constitutive part of labour markets. Scholars have studied the spatial dimension of these transformations, for example identifying so-called neighbourhood effects. In this sense, social segregation can reinforce economic and social exclusionary effects (Galster 2010).

Understanding social segregation and its effects for the cohesion and integrative capacity of urban societies has long been a core subject of ILS research. In the future, we will look more closely at so-called arrival cities and neighbourhoods (Saunders 2010) and investigate the interrelationships between ethnic-cultural and socio-economic processes of exclusion and inclusion. In light of this, attention will also be devoted to new urban-regional geographies of poverty, such as the observed suburbanisation of low-income households (Hochstenbach/Musterd 2017).

Development of Sustainable Built Environment

A fourth area of main research concerns the materiality of urban spaces as outcome of a complex interplay of society, market and planning. Particular importance is attached to the processes of negotiation and implementation of strategies and measures for “sustainable” urban development and to the actor networks, governance arrangements and planning cultures that come to bear in them. Dynamics of change following completely different patterns come together here: highly dynamic economic and social processes and a rather immobile built physical reality, which can only be changed selectively and in the longer run.

Our interest is, above all, focused on the influence of planning on the development of the built environment in the context of new growth pressures in major cities. We ask how the normative orientations of action in urban policy and urban construction are changing and how this is manifest in the collective negotiation of “sustainable” urban development strategies (Högström et al. 2018). We assume here that the institutional framework conditions for political and planning action have been permanently transformed in the context of globalisation and its concomitant effects. This gets expressed in a fundamental change in both planning culture and governance. Urban and regional planning is now more growth- and competition-oriented than it was before (OECD 2006; Hall/Hubbard 1996). At the same time, discursive non-hierarchical forms of governance, which aim at collective self-governance, have gained in importance (Fürst 2005). Answering the questions of the extent to which this has changed the modes of action and management capacities of urban actors and how it affects processes of “designing the city” overall – especially with regard to issues of “sustainable development” – is a further key objective of urban research in the ILS. We are looking here more closely at suburban areas, for which we expect growth and shrinkage to necessitate adaptive pressures in the future.

These four fields of research – which will be concretised and further developed as the four main research areas set out in chapter 3 – are not defined and treated in isolation from one another. Rather, they are connected by way of bridging discourses. These include:

- the background and forms of residential mobility and location choice, which are significant both for understanding processes of metropolisation and regionalisation and for the transformation of everyday mobility;
- the formation of “multi-local” ways of living and working and their implications for socio-spatial structures, everyday practices, and the identity formation of residents;
- the reinforcement of social polarisation and socio-spatial fragmentation;
- changes in the normative orientation of planning activity in the context of social and political transformation.

The specific theoretical foundations of each of the four research foci are laid out in chapter 3.

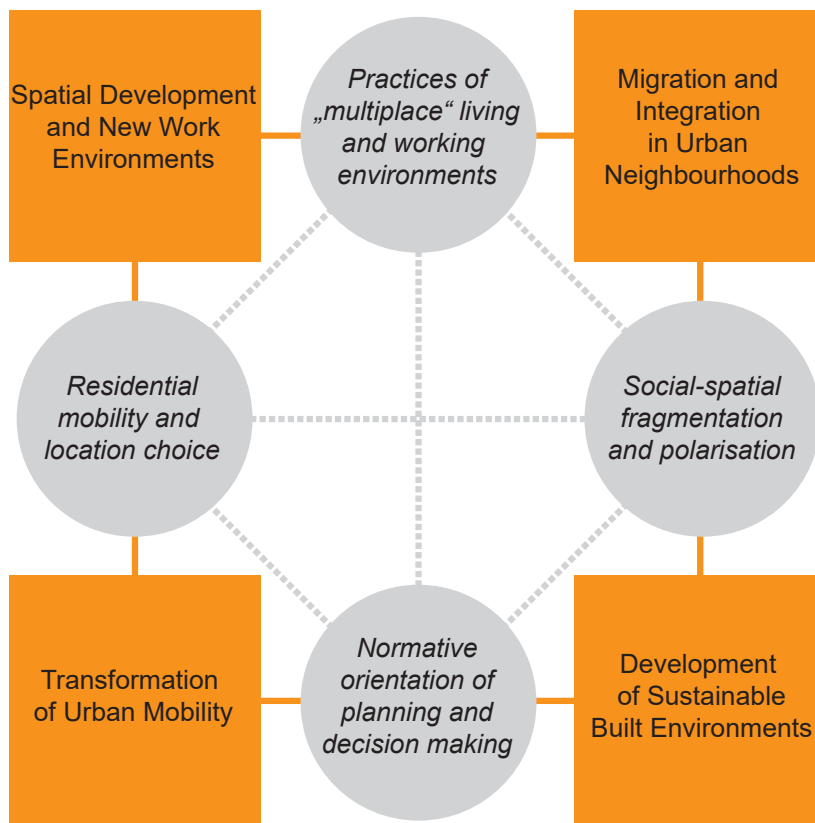


Figure: Thematic Focal Points and Connecting Discourses

2 Epistemological Approaches

Before presenting in greater detail the four thematic approaches to urban restructuring that have been only briefly sketched above (see chapter 3), some conceptual foundations will be discussed in what follows. Taken together, they can help to clarify our epistemological positioning and methodological approaches to the demarcated main topics.

2.1 “City” as Object of Knowledge

Along with the built physical and socio-spatial structures by which they are characterised, cities can be understood as an outcome of social conditions and developments. If the city is understood in this sense as a “social fact” that has been “spatially formed” (Siebel 2015: 15), the question needs to be posed, nonetheless, as to whether the “city” itself can be a meaningful object of theoretical and empirical discussion (Krämer-Badoni 2011). In this regard, urban studies have been repeatedly accused of employing a “container” understanding, inasmuch as they address urban change in isolation from the larger economic and political forces that constitute them (Saunders 1981, as cited in Scott/Storper 2015: 2). Marxist urban sociology, in particular, considers cities as merely “scenes” – as the external setting for class-related distributional conflicts – in order thus to deny them an autonomous significance as scientific category. To use an extreme formulation: in the urban era, city and society are one and the same; analysis of the city is absorbed into analysis of society as a whole.

Criticism of the city as an analytical category also gets articulated in recent studies on urbanisation as an increasingly borderless, deterritorialised process. Per these criticisms, the “city” cannot be meaningfully understood as a bounded unit or specific form of settlement. Following this line of argumentation, “the urban” is not an empirical object, but rather a theoretical category (Brenner/Schmid 2014). Urbanisation has to be seen as a multi-scalar, global process of continuous socio-spatial and morphological transformation taking place within flexible boundaries. On this view, there is also no universal predefined or generalizable form of “the urban” and the established typologies of urban research (such as metropolitan centre, major city, suburb, rural district) have become obsolete.

As this perspective, we regard “city”, nonetheless, as a spatial category and hence as a distinct object of knowledge and research object. Following Storper and Scott (2016: 1116), “cities” are understood as gravitationally produced agglomerations of people, their economic activities and social interactions, and the elements of the built environment they have created and that are materialised as compact, networked and multi-modally structured forms of land use. With regard to their complex functional interactions, urban agglomerations can be understood as “spaces of flows” (Castells 1989; Hall 2009). As already noted above, they are simultaneously nodal points in supra-regional, global networks of migration and mobility, of trade in goods and services, of resource transfer, and of exchange of innovations and information (Florida et al. 2017).

In the view of Storper and Scott (2016), the concrete form and structure of a local urban system is dependent on the level and mode of economic development, on the mechanisms of resource allocation, on the social stratification of a society (specifically an urban society), on cultural norms and traditions, and on the dominant constellations of power and governmental activities. On this understanding, regardless of universal drivers of development, the social and material outcome of “on-site” forces of urbanisation are always unique – in the sense of a specific local reality of structures and social practices, cultural influences, and political capacities for action and problem-solving.

From this perspective, we are able to separate the inherently “urban” from other forms of social reality. We can distinguish between phenomena that are to be found in cities, but cannot be explained by agglomeration effects (“issues in cities”, see Scott/Storper 2015), and phenomena that are genuinely urban in nature, because they are the expression or result of agglomeration and its externalities (“issues of cities”). In this sense, cities and their structures can be considered as independent causal factors for explaining individual behaviour and socio-spatial developments (understood as an aggregate of individual actions). “City” is not just a reflection of society. Rather, as a specific factor, it has an influence on urban life in turn.

In this regard, the ILS addresses, above all, neighbourhood or context effects (Galster et al. 2010 provides an overview.). This applies, for example, to the experience of spatially concentrated poverty and the reinforcement of risks of impoverishment and exclusion that are possibly connected to this phenomenon (Webber/Swanstrom 2014). Disadvantages resulting from a combination of below-average availability of job opportunities and a lack of individual means of transport represent another example (Matas et al. 2010; Cain 1992). But images of neighbourhoods and related socially produced (and reproduced) stigmata can also function as context effects. Finally, when the significance of physical, social and cognitive density for social learning processes and the diffusion of knowledge is highlighted, neighbourhood and context effects are also key explanatory factors for the innovative power of urban economies (Florida et al. 2017).

Causal Relevance of the Built Environment

By thematising place-specific context effects, we thereby proclaim an independent causal (co-)effectivity of the built and social environments with respect to human action and social interaction. Built structures can be grasped here as a subset of social structures: they are socially produced and, in complex ways, have an effect upon society in turn (Næss 2016). The structure of the city “is more than just the physical reflection of prevailing social norms, it is also their vehicle” (Siebel 2015, p. 144). What is meant here are particular properties of modern cities that complicate, impede, facilitate or suggest human behaviour. Cities and their respective functional, morphological and socio-spatial patterns can be understood as “systems of assigning chances” (Häußermann/Siebel 2004: 117), as “structure of opportunities” (Friedrichs 2011: 37). They open up possibilities of action for people or they also

restrict such possibilities, and this can be thematised from both a subjective and an objective perspective.

Some relevant attributes of the built environment are, for example, the spatial locations of urban functions (which implies the necessity of physical mobility), the availability and accessibility of public spaces, the structure and design of building stocks, and the system of infrastructure. Such properties never affect individuals in isolation or indeed predominantly, but rather always function in connection with other circumstances and conditions of economic and social realities of life. “Buildings and physical infrastructure normally do not actively trigger things to occur but they can (usually in interaction with other causal powers) enable, amplify, facilitate, restrain, suppress or prevent the occurrence of events and situations” (Næss 2016: 61). For example, the transportation behaviour of individuals, as articulated in the choice of transport modes and the distances travelled, is influenced not only by personal characteristics, but also by the distances to spatial occasions and the available infrastructure. The latter aspect is essentially prestructured by the urban spatial structure. The built environment can thus be understood as a “supply” that either facilitates or complicates a given behaviour. As Häußermann and Siebel (2004: 100) have put it, “city” is no longer a “generator” of a new or even better society, but it is indeed a “catalyst, filter and compressor of social developments”.

Drawing on the ontology of critical realism and clearly taking distance from environmental determinism, Petter Næss (Næss 2016) argues that “causes” understood in this sense can be regarded as tendencies, which will not certainly, but only possibly have effects. Whether they do or do not always depends on the respective context of action. In methodological terms, probabilistic models of explanation that concentrate on the probabilities of events correspond to this position.

This sort of understanding does not call into question the fact that (urban) space is always to be considered as socially produced and/or constructed. Spaces are neither backdrop nor containers, in front of which or within which social processes “play out”. They are themselves artefacts of social construction processes. In other words, spatial entities are also constituted by language and they are, in turn, continuously reproduced by way of actions and communication. The discursive production of space undoubtedly explains social processes, everyday modes of behaviour and processes of appropriation, up to and including representations and images. In this sense, urban research has to develop a view that grasps the social production of space (spatial structures, spatial uses and functions) and spatial aspects of social processes in their interaction, along with all their contradictions, overlaps, and heterogeneities. But on our understanding, apart from constructed contexts of meaning, spatial structures also have influence on social processes as “real” physical structures – which is not to say that we attribute to them a “determinant” effect on social reality and individual action. It is rather a goal of our research to understand how urban spaces (re-)constitute themselves by way of structures, processes and everyday practices, and also to identify possibilities for shaping social reality.

ILS research thus takes a middle road, drawing on both critical realist and constructivist positions. We call into question a fundamental rejection of the relevance of the physical environment to human action, such as is to be found in parts of human and social geography, as well as the social sciences. This sort of middle road implies that there can, in principle, be a knowable reality – also in the sense of the above-mentioned causal relationships – but that its disclosure and evaluation is always subject to constructed attributions of relevance, endowments of meaning and collective interpretations.

2.2 Spatial and Temporal References

Urban development can be understood as the outcome of interplaying forces at different spatial scales: the ubiquitous ones, i.e. largely place- and context-independent changes in society as a result of liberalisation, deregulation, tertiarisation, and digitalisation; and the local factors, which embed the aforementioned forces and developments in a unique, highly path-dependent, historical context and thus always bring about place-dependent results (Soja 2015). In this sense, we can understand urban change as being provoked by a higher-order restructuring of economies and societies, which are, however, filtered and mediated in a specific local manner.

The task of urban research is to attain generalizable knowledge about urban developments that abstracts from local particularities; it must, however, at the same time, be open to place-specific and path-dependent developments in their individual and historical sphere of experience. To this extent, urban development always has “glocal” features. The urban is always both, local formation and manifestation of global conditions and forces (“the urban as a local formation or a global condition”; Brenner/Schmid 2014: 164). Such an understanding of urban research manifests itself in the use of flexible spatial references, corresponding to the respective scopes of the factors that are considered to be effective. In methodological terms, this corresponds to a “multi-level” design, such as has proven to be adequate in many research contexts (see for example Sellers 2005).

At this background, the importance of path-dependent developments in urban research has also come into greater focus. This applies both to developments in urban spatial structure and to institutional and political developments. Path-dependence can get expressed in very different contexts and on different scales: in the relevance of topographic features (“first nature geography”) or infrastructural and settlement-structural conditions (“second nature geography”) for urban development or in the persistence of basic institutional orientations (as fundamental, collectively-shared values, endowments of meaning and identities, which have also been shaped by historical experience), forms of government and planning cultures (Kloosterman/Lambregts 2007). Path-dependency does not mean resistance against external influences, but it articulates a specific local or regional corridor for such influences and a mode of processing them. Our research should be aware of the significance of historical evolutionary trajectories and methodologically reflect this in an adequate fashion.

This applies especially for comparative research designs, such as are being increasingly pursued in the ILS (see ILS 2018). In recent years, an intensive debate about an adequate theoretical understanding of the urban has begun and comparative research is accorded a key role in it. “Think the urban through the diversity of urban experiences” – in this phrase, Robinson (2016: 189) has aptly expressed the claim to a newer theorisation. What is essential, according to Robinson, is that an open and reflexive culture of theoretical and empirical examination, which is committed to revisability, presupposes spatial openness. Here, openness means interest in urban development in different regions of the world. As mission, the demonstration of similarities and diversity in urban development in different locations, while showing the greatest possible sensitivity to the respective contextual conditions, can be described as an ethos of globally-acting comparative research. The ILS is committed to such an ethos.

International comparisons of cities or urban phenomena allow the validity of theories to be tested beyond the borders of regions and countries; and they permit research to distinguish more clearly between what is generalizable in urban development and what is particular and context-bound. In this sense, the value of comparative research lies in the question of the extent to which social and built-physical phenomena are formed through the influence of universal-systemic factors, on the one hand, and specific place-, time- and culture- dependent factors, on the other (de Vaus 2008).

2.3 Integration of the “Urban” and the “Regional”

As already discussed above, the urban age entails a fundamental change in the scale of urbanisation, which, in a certain way, involves a synthesis of the urban and the regional. “If we are entering a ‘new urban age’, ... it is a distinctly regionalized urban age“ (Soja 2015: 272). The new regionalism (see Blatter 2006 who provides an overview) has long been trying to make clear that large polycentric regions which are integrated into global networks have become fundamental economic and social units (Florida et al. 2017). As already mentioned above, what is “new” in this perspective is that regions – understood as networks of economic activity and social interaction – are no longer regarded as just the setting for supralocal spatial processes, but rather as autonomous motors of change and of the generation of growth, innovation and creativity in a global competition among locations (Soja 2015). The work produced by the new regionalism is not immune to criticism: a supposedly one-sided “economisation” in the conceptualisation of urban development has been noted, as well as the postulating of a “neoliberal doctrine” of competitive orientation and growth. Nonetheless, the “regional perspective” in urban research appears to be unavoidable. This is also due to the abundant empirical evidence for new forms of mega-urban regions, which, in part, exhibit supranational territorial dimensions and place new demands of dealing with their planning challenges (Schafran 2014; Innes et al. 2011; Benner/Pastor 2011).

At the same time, it is admitted that the causal processes behind new forms of urbanisation on a regional scale are still little understood (Meijers/Burger 2017). This applies to,

among other things, the interplay between positive and negative externalities of density and centrality and the question of whether the diversity or the specialisation of individual locations in networked, polycentric mega-regions stimulates development.

Regional urbanisation creates challenges, above all, for metropolitan governance, since, as a rule, the functional interdependence of spaces is not accompanied by political integration. As functional interconnections expand spatially, there is more and more incongruence between the spaces of action of urban actors and the spaces of responsibility of territorial planning and infrastructural management (Schafran 2014; Soja/Kanai 2007). Metropolitan regions are characterized by a complex coexistence of institutional domains of responsibility (spatial planning, provision and disposal, cultural and social planning, etc.), which greatly complicates achieving effective regional coordination. New forms of regional governance, by way of which the structural mismatch between functionally integrated spaces and fragmented institutionalisation of public functions can be at least partially attenuated, exist in only a few regions.

The related discussion about an appropriate “multi-level governance” is, however, only just beginning (see Schafran 2014; Corfee-Morlot et al. 2010) and many voices are moving away from the idea that a spatial congruence between economic and political-administrative structures is even at all possible (Blatter 2006: 15). What is clear is that the most varied forms of scalar restructuring of political action can be observed in metropolitan regions. These get expressed as the shifting of political decision-making power “upwards” and “downwards” (“re-scaling”), which is often interpreted as an increase in the importance of the urban. This puts demands on urban research to thematise the territorial levels of political action in their relational aspects. “... [W]e cannot explain adequately the complexity of governing processes at the metropolitan scale, without analysing its relationship to other scales and the transfer of political power among them” (Zimmermann et al. 2017).

For contemporary urban research in the ILS, this means, at the same time, overcoming the borders between urban research and regional research and bringing together both sub-disciplines, along with their paradigms and methodologies. “Never before have regional approaches been more important in urban research, and urban emphasis more influential in regional development theory and planning” (Soja 2015: 372).

Urban and Suburban Space

It has been pointed out in this context that the once pronounced duality between urban and suburban space is getting increasingly dissolved – in socio-spatial, built physical, and political respects and even with regard to identities (Soja 2015; Keil/Addie 2016). The highlighting of suburbanisation as a “global phenomenon” (Keil 2013; Nijman 2015) refers, in the first place, to the enormous significance of the “periphery” as a space of urban growth and transformation. Countries like the USA, Canada and Australia have been regarded for decades as “suburban nations” (Duany et al. 2001; Gordon/Janzen

2013; Davidson 1995) and, in light of the symptoms of the dissolution of the “European city” as a compact built form, this also appears to be evident for numerous European countries. The discussion of “post-suburban” developments that has been underway since the late 1980s has also referred to a manifest transformation in suburbia (Phelps/Wood 2011; Aring 1999). “In reality the suburb as a spatial entity has been a momentary piece of an urban puzzle that is always reconfiguring – physically, economically, socially and politically” (Nijman 2015: 7). Such claims refer to a functional enrichment, social processes of differentiation, and, last but not least, an increase in density of built spaces, which has led to a still fragmented, but also more multi-modal urban spatial structure. At the same time, a pluralisation of suburban development policies can also be observed (Phelps/Wood 2011).

Alan Walks goes even further: Drawing on Lefebvre’s dialectical conceptualization of the urban, he detaches “urban” and “suburban” lifestyles from settlement categories like “city” and “surroundings” (Walks 2013). Suburban lifestyles (suburbanism) are not to be understood as a static characteristic of places and spaces, according to Walks, but rather as a multi-dimensional process of development, which is continually producing new and overlapping properties (“... that is constantly fluctuating and pulsating as the flows producing its relational forms shift and overlap in space”, Walks 2013: 1472). For Walks, urban change is characterised by the simultaneity of concentration and dispersion, of mixing and connectivity versus segregation and separation of use, of multi- and mono-functionality. On this understanding, the “suburban” can only be understood as a subset or inherent property of the “urban”: a property that is both distinguishable and inseparable from the urban. “Hybrid” structures are increasingly emerging, which demonstrate essential features of both the urban and the suburban. Hence, suburban lifestyles could also be encountered in places that are usually regarded as “urban”. Frank takes up this idea, inasmuch as she understands “middle class enclaves” in central cities as “inner suburbanisation” (Frank 2013).

The discourse on post-suburbia also has a strongly normative character. In both the USA and Europe, more and more observers are calling for a comprehensive transformation of suburban spaces as a reaction against already occurring or expected socio-demographic, economic and climatic changes. According to such views, suburbia is in need of a “catch-up urbanisation”, in order to overcome perceived shortcomings like the automobile-dependency, the low energy efficiency of buildings, mono-structures in the housing and real estate markets, and a lack of available infrastructure (Nelson 2013; Ewing et al. 2008). Such a claim to reshaping suburbia is connected to both the concept of “retrofitting” (Dunham-Jones/Williamson 2009) and the debate on the *Zwischenstadt* or “inbetween city” (Sieverts 2003) and it has elicited considerable scholarly as well as political attention.

The observation of Phelps and Wu (2011: 4) that suburbia can be regarded as “city” not in accordance with its form, but rather its function, remains valid in post-suburban times.

At the same time, however, clichés about “typical” suburban settlements and social life have become obsolete. Like the city, suburbia displays a high degree of structural diversity and complexity. We have here to be clear about the fact that urban research has dealt too little with processes of change in suburbia in recent years. The ILS would like to contribute to closing these gaps. We would like, in particular, to examine the forms and effects of an increasing social diversity and heterogeneous processes of adaptation of the built environment in suburbia. Suburban spaces that fall under growth pressures in the course of metropolitan expansion are of special interest in this connection. As touched upon above, new forms of intra-regional segregation and “poverty suburbanisation” should also be made a focus of research.

2.4 Commitment to Inter- and Trans-Disciplinarity and to Sustainability

The tremendous dynamism of global urbanisation, the complexity and diversity of urban change, and the urgent need for mastering existing social challenges have contributed to a globally perceptible increase in the importance of inter- and trans-disciplinary urban and regional research (Zscheischler/Rogga 2015; Weith/Danielzyk 2016). Integrated approaches to research are a cornerstone of the strategic orientation of ILS research. We put into practice a tight collaboration among scholars, municipalities and social actors and we combine evidence-based findings and practical knowledge in trans-disciplinary projects (see the ILS transfer strategy). Thanks to basic and user-oriented research – for example, on phenomena of social inequality or small-scale urban developmental dynamics – we want to generate new knowledge in both scholarly and non-scholarly contexts, and to explore locally-specific urban transformation solutions with actors involved in practice.

Using innovative project designs, we attempt more experimental forms of trans-disciplinary collaboration. Thus, experimental approaches like the nowadays much discussed “reality labs” offer new spaces for achieving collaboratively-produced solutions (De Flander et al. 2014; Jahn/Keil 2016). This is, above all, the case for topics in the area of sustainability: for instance, with regard to improving the energy efficiency and structural resiliency of building stocks (Sengers et al. 2016; Brohmann/Grießhammer 2015). The formats for inter- and trans-disciplinary research have to be critically examined and their results have to be fed back into practice and scholarship using appropriate methods of evaluation (Luederitz et al. 2016; Moss 2017).

The increasing relevance of trans-disciplinary research is linked to the ILS's commitment to the objectives of global sustainability. We regard it as our responsibility to actively support a sustainable design of cities and urban regions; and, in so doing, we take the “normative compass” of sustainability as a guide to action. The current political debate on global sustainability goals, which in 2015 were first adopted on the level of the UN in the form of a comprehensive system of “sustainable development goals” (SDGs), provides an appropriate frame of reference here. The ILS

draws important inspiration for the outline of its research from the 2016 “New Urban Agenda” (Habitat III). By means of, among other things, increased participation and adequate access to mobility and housing, the agenda aims at creating a “city for all”.

Even if the SDGs are available in differentiated form, they are to be understood – like the concept of sustainability itself – as merely frames of reference and have to be again and again re-interpreted and re-negotiated in specific local-regional and/or subject-related contexts. The ILS contributes to this process of searching for sustainable transformation, in particular, by way of trans-disciplinary projects in which collaborative solutions are developed. In this context, we take up current scholarly debates on different paradigms of sustainability and the multiplicity of meanings of the concept (see for example Steurer 2001; Steurer 2010). The ILS regards a purely anthropocentric, as well indeed as a purely ecocentric, interpretation of sustainability as problematic. Instead, our basic interpretation places the focus on interdependence and a consistent linking of economic and social developments with environmental aspects; and it takes justice as the fundamental normative point of reference for both the present and the future (Grunwald 2016: 27).

By way of an understanding of intergenerational justice that has been shaped by the debate on sustainability, the ILS also sees procedural fairness and distributive justice as normative points of reference for desirable spatial development. What counts as “just” development is socially negotiated and is, thus, context-specific for different societies and temporal phases – also in the sense of different social pre-structuring by way of rules, conventions and relations of power. To this extent, there is no universally valid position, but rather highly different voices in the debate on spatial justice (Harvey 1973; Soja 2010; Fainstein 2010). Nonetheless, universally valid objectives of a socially or territorially just development can be established and these are relevant to the ILS as guides for action. We can mention here the transparency of decision-making processes on the distribution of resources; the inclusion of less articulate or less powerful population groups in decision-making processes that affect their environment and their opportunities for participation; and a spatial development that counteracts segregation and polarisation, and hence the persistence of unequal living conditions, and that promotes access of different groups to resources.

Thanks to studies on different forms of social segregation and spatial disparities or on the mobility of different social groups, the ILS contributes to demonstrating the effects of current development processes on socio-spatial inclusion and exclusion and on the possibilities of a sustainable and socially just development. There are no simple solutions. Goal-related conflicts between intra- and inter-regional territorial justice, between the goals of distributive justice and of the efficiency of the means employed, must be made transparent and negotiated (Storper 2011). Similarly, procedural justice and distributive justice have always to be considered together, since transparent and fair procedures do not automatically lead to just outcomes.

3 Thematic Focal Points

In what follows, we present in greater detail the substantive approaches to studying urban change that were introduced in chapter 1. We illustrate the discursive and theoretical underpinnings, the choice of main topics and research questions, and the linkages and interfaces to other thematic focal points and other work of research groups. At the same time, the four focal points constitute the substantive framework for the derivation of focus projects that fill out the 2018-2020 ILS research programme.

3.1 Spatial Development and New Work Environments

(leading research group: “Urban Regions”)

The research focus “Spatial Development and New Work Environments” aims at exploring the interactions between phenomena of “new” urbanisation and the location decisions of businesses and households as actors of spatial development. On the one hand, important points of reference are located in space and thus determine the scope for each individual location decision. On the other hand, spatial urban structure is the outcome of individual location decisions and is thus subject to constant change. A more encompassing understanding of this complex and reciprocal relationship is the fundamental objective of the research work on this topic.

Discourses and Theoretical References

From a macro perspective, the work gathered under the umbrella of “new” urbanisation research is linked to the debates on the tension between the “metropolisation” of the global system of cities (Krätke 2007; Storper/Scott 2016), which implies a spatially-concentrating effect, and the “regionalisation” of cities (Phelps et al. 2010; Soja 2015) in the form of a functional deconcentration on the regional level. Investigations of the different dimensions of the multi-faceted concept of polycentricity represent, moreover, a key point of reference for our work (Burger/Meijers 2012; van Meeteren et al. 2016; Rauhut 2017). In recent years, the ILS has made crucial conceptual and methodological contributions in this regard (Danielzyk et al. 2016; Krehl et al. 2016; Taubenböck et al. 2017). The research work conducted up to now was, in the first place, about developing an “analytical toolset” for the empirical treatment of the fuzzy concept of polycentricity and providing proof of its evident status as a basic spatial-structural figure. Future research work, by contrast, is meant to illuminate more clearly the effects of polycentric spatial development with respect to mobility, the housing market, provision of basic needs, and the availability of green spaces. The principal question is whether the positive effects of polycentric urban structures – that are suggested in various national and supra-national strategy documents – are empirically verifiable. Apart from our own empirical research, meta-analysis of the current state of international research can also be useful here.

Moreover, a further point of reference for our research is the, in the meanwhile, broad discussion of the “renaissance” or “reurbanisation” of major cities, which since the middle

of the last decade, at the latest, can be observed as an evident phenomenon in Germany, as well as in other European and non-European countries (Siedentop 2018; Brake/Herfert 2012; R erat 2011; Glaeser 2013). In this regard too, the aim in the years to come is to further develop the hitherto primarily descriptive studies by way of the addition of an explanatory and evaluative perspective. Thus the plan is to develop further an explanatory model that has been developed in broad outlines in the ILS and that models reurbanisation as a universal and context-mediated phenomenon, which can be traced back to both demand and supply impulses, and to systematically test this model by way of case studies (Siedentop 2018).

Our studies on this subject are based on migration research, among other things. In this context, more recent action-theoretical approaches take up the transformation of the work environment in the late modern period (Beck 2000; Gottschall/Voss 2005; Kratzer 2003), which is regarded as the motor for changes in the location decisions of households and businesses. Thus, due to short-term jobs, shifting places of work both domestically and abroad, and the increase in dual-earner households, the question of “shuttling” from one place to another or “moving” is being revisited and extended forms of mobility like multi-locality or transnationality are gaining in importance (see, among others, Nisic/Abraham 2015; Dittrich-Wesbuer/Pl oger 2013). At the same time, approaches that emphasize the value of social capital and social relationships as well as academic work that explains residential location decisions from a life-cycle perspective play an important role in the work of the ILS (Kley 2009; Scheiner/Holz-Rau 2015). We regard, above all, multi-level models as the appropriate theoretical basis in this respect. Such models look for explanations on the micro-level – hence in the behaviour of individuals – but, at the same time, they take into account structural factors on the macro level as influencing contextual conditions. In doing so, multi-level modeling is able to depict the aggregate and explain effects of individual action (Kley 2009).

Thematic Focal Points and Research Questions

Based on preliminary work undertaken in recent years, we want to pursue theoretically-guided empirical studies of the forms of appearance, causes and consequences of spatial restructuring processes in primarily post-industrial urban regions with respect to two key questions:

- *How are current trends in spatial development, like reurbanisation and polycentric spatial development, to be explained on different spatial levels and how can they be evaluated in relation to social demands and higher political goals?*
- *How do changes in the sphere of work affect the location decisions of businesses and households?*

With regard to the above mentioned tension between processes of metropolisation and regionalisation and the resulting polycentric spatial development, we will look at, among other things, the spatial range of agglomeration effects and the development of metro-

politan functions over time. We will also deal in greater depth with the complex spatial structures and interconnections of traditionally polycentric regions like the Ruhr Area (for example, with respect to the challenge of generating “urbanity”). As discussed above, with respect to reurbanisation, we want to enrich and validate an explanatory model that has been developed in the ILS. Beyond the analysis of spatial trends, it is important here to uncover the impacts of reurbanisation and the challenges for planning and decision making (for example, rising rental prices and exclusionary effects due to a “new housing shortage”).

By focussing on the spatial effects of changes in the work environment, we will make contributions to the scientific debates on the changing location decisions of private households and businesses. A blurring of the boundaries between gainful work and private life is of particular interest in our research work: for example, with regard to a newly adjusted relationship between place-of-work and place-of-residence, but also with respect to new forms of self-employment and the much discussed return of manufacturing activities into large cities (“urban production”) (Läpple 2016).

Overall, this research focus promises to make a contribution to a better causal understanding of social megatrends and the associated spatially-relevant consequences.

Linkages and Interfaces

The interlinkages between the heterogeneous forms of mobility are of great significance for the “Spatial Development and New Work Environments” research area. As an example, we refer to the multifaceted interactions between location decisions (as residential mobility) and everyday mobility (as daily transportation behaviour). A close collaboration with the research group “Daily Mobility and Transportation Systems” is thus essential.

In the research area “Development of Sustainable Built Environments”, one substantive focus in the strategy period targets the future development of suburban spaces. The analysis of current trends in spatial development provides some valuable foundations in this regard and suggests the extent to which new challenges are emerging in these spaces.

There is intensive exchange with the “Geoinformation and Monitoring” group in the development and implementation of spatially-related analytical methods. In this connection, we want to call attention to the trend study on “Migration and Residential Location Decisions”, which represents a fundamental building block of ILS geomonitoring and will serve as an empirical basis for work in the “Spatial Development and New Work Environments” research area.

3.2 Transformation of Urban Mobility

(leading research group: “Daily Mobility and Transportation Systems”)

A dynamic transformation of urban mobilities can be observed as an outcome of social and technological changes. Reference can be made here to the increasing traffic volumes as a result of changing lifeworlds and work environments and to changes in the mobility behaviour of certain population groups. At the same time, motorised transport has increasingly negative effects on the environment and energy balances as well as on health. Based on previous work, it is our main aim to better understand this transformation and to analyse behavioural causes. With the provision of policy recommendations, our scientific work also gains social significance.

The objectives of a sustainable and integrated transport and urban development, which were set in the framework of the United Nation's New Urban Agenda, underscore the significance of future-oriented, environmentally and climate-friendly forms of urban mobility. The implementation of the shift to post-fossil-fuel energy sources and the achieving of national and international climate protection goals are key tasks for the future. Consequently, the modernisation of transport systems – among other things, in the direction of a socially and ecologically-just transformation – is needed. Technologically-supported mobility and digitalisation offer new opportunities to this end. But their social implications have yet to be sufficiently investigated. We argue that, apart from infrastructural deficiencies, the fact that success in post-fossil-fuel mobility is still largely lacking can also be traced back to an inadequate understanding of individual mobility behaviour and the various economic, social, cultural, and mental barriers to which more environmentally-friendly forms of mobility are exposed.

The research focus “Transformation of Urban Mobility” deals with the interaction between spatial and infrastructural development and with individual mobility behaviour in the context of the politically-driven shifts in energy sources and means of transport. It is of particular importance to investigate the various forms of mobility in the context of environmental, social, and technological change from an interdisciplinary perspective (involving, above all, transport studies and the social sciences).

The goal of this research area is to examine mobility as a key indicator for understanding societies, to explain behavioural structures, and to depict decision-making processes. In light of both a growing complexity of social change and the dynamic of upheaval in the energy sector and technology, this research area focusses on the transformation of urban transportation systems and mobility markets and associated changes in mobility behaviour. In addition to preference-oriented and energy-efficient design of (transportation) infrastructure, focus is also placed here on the minimisation of negative impacts on both people and the environment; for example, in terms of accessibility, social participation, land use, and greenhouse gas emissions.

Discourses and Theoretical References

Differing, but still complementary, concepts and theories are needed for describing, explaining and modeling the individual facets of mobility behaviour: such as the choice of means of transport, the time budget employed, and the choice of destinations. The integration, above all, of social scientific and psychological approaches (for example, latent constructs and theories of emotion) has gained considerably in importance (Sheller/Urry 2006; Bamberg 2013; Temenos et al. 2017). This resulted in the integration and further development of adjustment and acceptance models – like, for example, Ajzen's (1991) “theory of planned behaviour” or Turner's (1991) “social identity approach” – which serve to deepen our understanding of mobility behaviour. Existing approaches, like the “person-environment model” (Oswald 2010) or the “space-time model” (Hägerstrand 1970), are taken up. The mobility behaviour of different population groups is described and explained using decision models (Ben-Akiva/Lerman 1985; Mc Fadden 2001). In addition to the use of behaviour-theoretical explanatory models for mobility behaviour, this research area aims at making the link to concepts drawn from both residential mobility research (Petzold 2017) and research on digitalisation and virtual mobility (Urry 2000), whereby interactions between longer-term and day-to-day movements in space are examined.

Thematic Focal Points and Research Questions

The substantive focus of the research area is directed toward the various forms of mobility and their reciprocal conditions and dependencies. Our main aim is to describe and explain the interactions between mobility, transportation and spatial development and to use them as the basis for predictive modeling. The research focal points for the next three years can be divided into three subject areas. Firstly, we will examine the effects of new technologies and ongoing digitalisation on the development of transport systems and mobility behaviour in the sense of “smart mobility”. The goal is to achieve a better understanding of these socio-technical systems and to comprehend both the increasingly observable fragmentation of activity patterns and the intertwining of physical and virtual mobility. In addition, mobility has to be addressed on the individual level and the influence of values, norms and discourses on individual behaviour has to be understood. The following question serves to guide our research:

How do digitalisation and technological progress affect the design of transportation systems and what resultant changes are there in mobility behaviour?

Secondly, we will investigate interdependencies between objectives in transportation and energy policy, on the one hand, and the transformation of urban mobility, on the other. Current forms of mobility will change and in the course of shifts in energy sources and transportation, efforts will be made to achieve energyefficient mobility. Studying the dynamic of changing mobility patterns and mobility cultures in the context of a more general social transformation is a key factor in this connection. We also look at emerging constellations of actors, in which the boundaries

between consumer and producer roles become blurred and are transcended in the hybrid form of the “prosumer”.

How do actor constellations and different mobility cultures affect the potential for implementing a sustainable shift in energy sources and means of transportation? What spatial and social consequences are to be expected?

Thirdly, we will analyse the connections between daily and residential mobility. The focus here is on the connection between changes in location decisions and mobility behaviour, as well as the interaction between mobility, transportation and spatial development in the context of a broader social change. Moreover, changes in and the flexibilisation of work environments also affect mobility. A close collaboration with the research areas “Spatial Development and New Work Environments” and “Migration and Integration in Urban Neighbourhoods” will be strived for here.

How do new work environments and ways of life, as well as associated changes in residential location decisions, influence the stability of urban mobility patterns?

We hope that this research will lead to a better understanding of the interactions between mobility behaviour, the built environment and social discourses on space and mobility. Such an understanding can add a social and geographic perspective to transportation research that has been hitherto largely restricted to engineering matters and technological issues. It can also promote political action and private economic activity favouring change toward more sustainable mobility. Individual and collective mobility behaviour is not to be viewed here independently of spatial structures and infrastructure. Our research in this area makes use of the opportunities for close linkages with the research areas “Spatial Development and New Work Environments” and “Development of Sustainable Built Environments”. Current social change is influenced by, among other things, the increasing cultural diversity of our society, which gets expressed in a pluralisation of mobility cultures. Hence, in dealing with this research area, we will consciously exploit the synergies with the research area “Migration and Integration in Urban Neighbourhoods”.

In addition to quantitative and qualitative techniques of empirical social research, as well as statistical methods, transportation modeling and geomodeling (among other things, modeling of accessibility) also offer methodological points of reference. Thus, a deepening of our modeling expertise in close connection with the “Geoinformation and Monitoring” group is a core goal of future research. Finally, an important objective of our research work is to reinforce international exchange in mobility research by intensifying joint publishing and acquisition activity with scholars from abroad.

3.3 Migration and Integration in Urban Neighbourhoods

(leading research group: “The City as Social Space”)

Urbanisation and urban development are increasingly marked by international migration and a subsequent heterogenisation of urban society. Simultaneously, with rising social inequality in cities, we can also observe a spatial fragmentation and polarisation of different social groups, which threatens social cohesion. Addressing these two fundamental trends, the research focus “Migration and Integration in Urban Neighbourhoods” investigates the consequences of migration processes, the forms of social and socio-spatial inequality and urban integration processes. In particular we will focus on the interactions in and potentials of local settings (the neighbourhood).

Discourses and Theoretical References

Migration and mobility have always been origins and causes of urbanisation. In the research focus “Migration and Integration in Urban Neighbourhoods” we consider new forms of migration, particularly forms of temporary and transnational migration (Portes/Zhou 1993; Elliot/Urry 2010; Pries 2010) and their implications for social integration processes (Foroutan 2015; Terkessidis 2010). We will also consider the current challenges of refugee migration for the reception contexts and the particular function and role of arrival cities and neighbourhoods (Saunders 2010). The focus here is to reveal the variety of urban-spatial and socio-spatial conditions and how these can be shaped to promote social integration. Our concern is to better understand specific local conditions of exclusion and inclusion, which, in the sense discussed above, can be described as context effects.

Despite all conceptual controversy, we understand integration here as a concept of social participation and as a relational and bilateral process in which, both, society/state and individuals/communities are involved (Pries 2015). Our understanding of integration means “equal opportunity for participating in the central areas of social life” (SVR 2010: 21). Immigrant background constitutes only one among many economic and social “markers” (Gestring 2014: 79).

Against the background of new forms of social and socio-spatial inequality, new kinds of migration must also be regarded as a consequence of a neo-liberalisation (Atkinson 2015), which likewise represents a challenge to the integrative capacity of urban societies. The spatial separation of poverty and wealth in different urban spaces and institutions (for example, schools), the further social segregation of inner-city neighbourhoods as a result of in-moving (re-urbanising) high-income groups – in turn being related to various forms of poverty suburbanization – and the socio-cultural marginalisation of different social groups, all lead to clear social and spatial fragmentation and polarisation in cities. Research on socio-spatial inequality stresses the relevance of smaller spatial segments, like boroughs, districts or neighbourhoods. Our main research is also located at this scale and we explicitly refer to concepts of residential segregation (Dangschat 1998) and neighbourhood or place

effects (Galster 2010), and, with a greater focus on specific processes or themes, to concepts like gentrification (Brown-Saracino 2010), housing market segregation and educational segregation. Discourses on socio-spatial inequality are often connected to concepts like disadvantage, discrimination, inclusion/exclusion, and lack of social participation and fairness, as well as corresponding political counter-concepts (Harvey 2009; Fainstein 2010). In this respect, an essential research perspective draws on Bourdieu's work on relationally differentiated social space (Bourdieu 1998), which can be physically located and analysed by way of persons, forms of capital and institutions.

Thematic Focal Points, Research Questions and Expected Findings

With regard to the “dual challenge to integration” consisting of international immigration and socio-spatial inequality, the connections between, in particular, ethnic-cultural and socio-economic urban and socio-spatial processes of exclusion and inclusion have yet to be sufficiently investigated and differentiated. When do certain spatial population structures promote integration and when do they constrain it? Drawing on our previous research on social permeability and concepts of social mixing in neighbourhoods, as well as on (new) forms of urban migration, we want to distinguish and analyse different neighbourhood typologies of social integration. We are particularly interested in the functions of so-called “arrival neighbourhoods”. Our guiding research questions are:

*What significance and role do “arrival neighbourhoods” have for the city as a whole?
How can urban development influence and shape spatial structures in such a way as to promote integration?*

We will not only consider socio-spatial processes of interaction of different social and ethnic-cultural groups, but rather we will also focus on questions concerning the built physical and spatial organisation of urban neighbourhoods and the role and design of institutions that are relevant to integration. What significance do schools and educational institutions have as meeting places and in promoting participation? How should urban and neighbourhood structures, as well as housing forms and conditions, look and be designed, in order to facilitate encounters and interaction among people coming from diverse social and cultural backgrounds? Clear connections and points of intersection exist here between the research of the research groups “City as Social Space” and “Built Environment”, which address these social and built-spatial aspects using their respective disciplinary expertise and from different perspectives. With regard to the micro-mobility of different population groups, we want, in particular – and in cooperation with the “Geo-information and Monitoring” group – to combine quantitative analyses of small-scale population development and qualitative research on lifestyles, social milieus and social attitudes.

From this research, we expect to achieve a better understanding of specific urban-spatial constellations and configurations of socio-spatial processes of exclusion and inclusion. Such an understanding should help decision-makers – especially those in urban and

neighbourhood development – to adopt social, economic, and architectural concepts and measures of an inclusive and social city. The evaluation of the effects and conditions of implementation of such concepts and measures will also be an object of our research. In a lead project cutting across research groups, we would like – with respect to the Ruhr Area as a polycentric space of transformation – to examine these consequences of a selective population mobility (immigration/emigration) within the context of specific recent constellations of migration and mobility (immigration from Southern and Eastern Europe, refugee migration and refugee concentration). All research groups and the “Geoinformation and Monitoring” group (in particular, in relation to the smallscale structural data generated in the “municipality panel”) will collaborate on this project. In addition, our research aims at international comparative research on different “arrival spaces and spaces of transformation”.

3.4 Development of Sustainable Built Environments

(leading research groups: “Built Environment” and “Urban Regions”)

From the perspective of sustainability, this research focus deals with procedural and built physical aspects of the design of cities and regions and addresses cultures, actors, instruments and their effectiveness. The complex processes involved in the development of the built environment will be made the focus, in order to support the sustainable transformation of cities. Inter- and transdisciplinary research methods play a guiding role, as do internationally comparative approaches.

Discourses and Theoretical References

In light of ongoing global urbanisation, we examine the morphological dynamics of urban regions and the heterogeneity of transformation trajectories of post-industrial urban landscapes. The focus is placed on phenomena of growth, but it also includes the coexistence or simultaneity of growth and shrinkage and thereby thematises major changes in the built environment and in infrastructure. Among other things, issues of global urbanisation processes (see, among others, Seto et al. 2010; Großmann et al. 2013; see also chapter 1) and reurbanisation (Siedentop 2018; BBSR 2017; Osterhage 2011) serve as points of reference for our theoretical and conceptual work. Adhering to the guiding idea of sustainable development of built structures and urban public spaces, moreover, we draw on internationally established discourses like “redevelopment” (see for example Fainstein 2001), “urban regeneration” (Roberts et al. 2017) or “retrofitting” (Dunham-Jones/Williamson 2008; Røe/Saglie 2011), in which the ILS has participated in recent years – above all, in relation to post-suburban spaces and single-family housing stocks. Furthermore, we address the externalities of urban development (“Cost of Sprawl”; Burchell et al. 2005) under conditions of spatially and temporally disparate development.

In so doing, we explicitly make reference to the concept of sustainability as “meta-consensual policy term” (Rosol et al. 2017), which is handled differently in different spatial contexts (Levesque et al. 2016; Conelly 2007; Grunwald 2016). The new growth to which many metropolitan centres are currently subject, or will be in the near future, raises old

and new questions concerning the balance between environmental, economic and social interests. Discourses about the “gentrification” of inner-city residential areas and the related effects of upgrading public spaces or energy-related improvements of housing stocks may be mentioned here merely as an example.

With this background, the research focus makes a contribution to answering the question of what conditions and influencing factors shape the “sustainable” development of the city amidst the tensions among society, market and planning. From current discussions, it can be concluded that, on the one hand, classical (“top-down”) leadership claims of public authorities continue to be effective, but that, on the other hand, (“bottom-up”) alliances and interests demand participation in processes of spatial planning. The result is the emergence of new, complex landscapes of actors and forms of governance, in which altered paths of decision-making (for instance, in the sense of coproduction) have arisen. Such new modes of collective action taking must also be examined with respect to their effectiveness, and accepted planning assumptions must be readjusted (Selle 2013; Healey 2006).

Consequently, our research aims at analysing the complex processes of negotiation of “sustainability” policies at the city and city region level. These are embedded in a social environment and planning culture in which specific patterns of perception, values and traditions determine planning action (Reimer/Blotevogel 2012; Carmona et al. 2010). Research has to acknowledge the complexity of sustainable urban development and this requires us to consider the interplay between the physical-material aspects of urban development aiming at sustainability and the underlying actor structures, governance forms and negotiation processes (procedures, instruments, models, strategies, etc.) in their cultural embeddedness (values, models of thought, traditions, etc.). The research on planning culture starts from these premises. Its aim is to identify different models of thought and action, as well as their material forms of manifestation, and to integrate them into an understanding of spatial planning (Othengrafen/Reimer 2017).

Thematic Focal Points, Research Questions and Expected Findings

Starting from the basic thematic orientations presented above, work in the “Development of Sustainable Built Environments” research area focusses on the following guiding questions in the 2018-2023 strategy period:

What processes of adaptation and transformation of planning cultures can be observed under the heterogeneous conditions of different growth dynamics?

Within what actor networks and governance arrangements are strategies for “sustainable” urban development negotiated and reproduced and what obstacles appear in their instrumental implementation?

What adaptive potentials exist for the improvement of urban spaces, especially in a post-suburban context?

These questions will be investigated using an internationally comparative research approach, which will examine different paths of sustainable growth management in urbanised contexts, while including locally or nationally specific actor settings, (planning) cultures, policies, and strategies. The influence of these processes and cultures on the built appearance of urban spaces is also at issue here.

From this research, we expect to obtain a better understanding of the mechanisms and interactions between social action and built environment. Such an understanding should result in knowledge on the potential and the limits of the sustainability concept in the urban context, as well as in suggestions for the development of new planning and design instruments.

Linkages and Interfaces

The built form of cities influence the action of individuals, households and businesses: for example, with respect to location decisions and everyday mobility behaviour. Hence, this research topic exhibits clear points of intersection with the other research foci and these have to be appropriately taken into account in the research work. From the perspective of urban planning studies, processes of urban development are, above all, considered by way of the theoretical and conceptual approaches of planning-culture and governance research. The combination and further development of both perspectives are also of considerable relevance in the other research areas. Thus, considerations regarding planning culture can decisively improve our understanding of spatial development; and important contributions for designing inclusionary processes can be derived from governance research.

The above presented focal points of future ILS research will be operationalised and implemented in the 2018-2020 research programme. The programme includes four larger integrative research projects (“focus projects”), which are, in part, consciously located at the interfaces between the research foci. As already practiced in the 2014-2016 research programme, the allocation to projects of the institute's own resources for the new programme period occurred on the basis of competitions. An inhouse call for proposals was put out in summer 2017. The steering committee was responsible for the selection of projects to be supported. Its evaluation was based on, among other things, the international connectivity of topics, the innovativeness and quality of the research questions and methods, the linkages of the project contents with strategically relevant national and international partnerships, and the appropriateness and plausibility of the resource requirements.



4 Implementation within the Research Programme

The core themes of future ILS research outlined above are further specified in the Research Programme 2018–2020, where they are connected with and viewed through the lens of concrete projects. The programme thereby details four larger and integrative designed research projects (the so called “focus projects”), some of which are deliberately located at the intersections between the research areas. As already practised during the 2014–2016 research programme, own resources of the ILS were awarded competitively for the new research period. This was started in the summer of 2017 by a call for proposals. The management conference was then tasked with the selection of projects to be financed. The assessment took place on the basis of, inter alia, the topics’ international connectivity, the innovativeness and quality of the proposed research question and methods, the linking of the proposed project themes with relevant national and international partners as well as the adequacy and plausibility of resource requirements.

The 2018+ Research Strategy has also set itself the objective of semantic parsimony. Earlier ILS research strategies distinguished between research areas and research topics assigned to these areas. Following a further increase in thematic focus, our research will from now on be structured solely by research areas. We hope that this will lead to more communicative clarity when presenting the core contents of future ILS research to the research community and practitioners alike.

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