

Urban Development Management in Munich, Germany *Integrated strategy, impacts, learning from external evaluation*

Urban development management as a proactive, political and professional strategy means more than just “making good plans” and to implement them (REISS-SCHMIDT, 2006). It means the cooperative/communicative process of managing uncoupled interdependences in an open field of actors of the civil society, the market economy, the different levels of the political-administrative system and the democratic decision process. The City of Munich subscribes to an integrated urban development strategy that explicitly tries to countervail urban sprawl - the topic of the ISOCARP Congress 2008 and of this paper.

PERSPECTIVE MUNICH as this development strategy is called is a strategic, proactive urban development concept first adopted by the City Council in 1998 (CITY OF MUNICH 1998/2001, 2005a). Being one of the few still slightly growing cities and city regions in Germany, the concept, its implementation and its impacts are instructive also for other prospering city regions. An innovative external evaluation process of the PERSPECTIVE MUNICH in 2006/07 allows transferable methodological and strategic conclusions beside the aspects of a sustainable settlement strategy to avoid sprawl. Instruments and processes, but also advantages and risks of a very complex and integrated approach of development planning become clearly visible in this case study.

This paper first presents the layout of Munich as a prospering city that is embedded in a much wider context – the mega-city region. Section 2 explains the “tripod” strategy of ‘urban, compact, green’ as a means for dealing with future settlement dynamics. Based on that strategy, section 3 demonstrates with three flagship projects the city-internal expansion of Munich. Section 4 presents regional approaches, before section 5 and 6 turn to some evaluation results, which shed light on how Munich’s integrated urban development policy fared so far. The final section concludes with some lessons learnt and open questions.

1. Munich: prospering city and mega-city region

The city of Munich hosts nearly 1.4 million inhabitants on approximately 310 km², which makes an average population density of 4’500 inhabitants per km². Thus rather densely populated in western European terms it nevertheless is not to compare with southern European cities or even Asian megacities, anyway. Munich is the third largest city in Germany behind Berlin and Hamburg and represents one of the European powerhouses of the rapidly expanding knowledge economy. The knowledge economy forms an interdependent system of advanced producer service (APS), high-tech industries and knowledge creating institutions such as universities and research establishments (THIERSTEIN ET AL. 2006a).

With almost 90’000 students in three universities, two universities for applied sciences, almost a dozen of colleges and academies for philosophy, music, theatre, cinema and fine arts - and with nearly 50’000 researchers in private companies and public institutions – the capital of the Free State of Bavaria - one of Germany’s 16 “Laender” - is a major hub of the European knowledge network. The two big state universities in Munich, the Technical University (TUM) and the Ludwig-Maximilians-University (LMU), both awarded with the title of “Universities of Excellence” in 2006, are always on top of rankings in Germany and among the best universities in Europe and worldwide.

The national and the European Patent Organisations with together almost 6’000 employees, the headquarters of research-associations (Max-Planck-, Fraunhofer-Society, GSF etc.) and many transfer- and technology-centres or -agencies are important elements of the transfer between research and industry. The APS firms in Munich specialise around the media and IT-business, business consulting and services as well as specialised law firms and thus

complete the picture of a very successful knowledge region. The “Deutsches Museum”, Germany’s leading technical and science museum is a successful bridge between science and the public. They represent Munich’s main manufacturing branches like automotive, aircraft- and space-industry, medical technologies, nano-technology and optical technology. To understand Munich is to look at its role within the mega-city region of Munich. The outskirts of the city for decades grew into the region along the main transportation infrastructure lines, fuelled by low mobility costs, abundance of ready-to-build land and lifestyle expectations of living “in the green”. The first suburban ring within the Munich Regional Planning Region has 2.6 million, the wider mega-city region (“Europäische Metropolregion München”/“Munich Metropolitan Region”) nearly 5 million inhabitants, including medium sized cities like Augsburg, Ingolstadt, Landshut and Rosenheim.

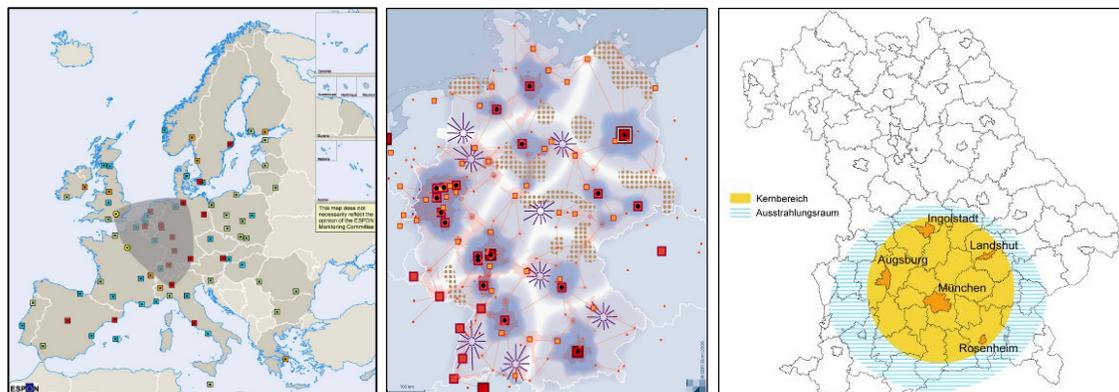


Figure 1 left: Network of mega-city regions in Europe - Munich is the south-east corner of the “pentagon” (source: ESPON 2004; middle: 11 mega-city regions in Germany (source: BBR/Federal Office for Building and Territorial Planning); right: Munich Metropolitan Region in Bavaria (source: City of Munich)

2. *Urban, compact, green* – integrated strategies for future settlement

Today the Munich area still keeps its leading edge in Germany as being the economic power house of the knowledge economy, thus constantly attracting people, firms and purchasing power into the area: re-urbanisation has a new show case. The population of the city of Munich will grow further according to recent forecast mainly by immigration from other parts of Germany and Europe by 5 percent until the year 2020; the region even more by more than 10 percent. Expected are an increasing number of commuters not only from the suburban fringe, but also from the second and third rings in a distance of up to 80 kilometres. Today, only 48 percent of the more than 300'000 job commuters use public transport. Additional shopping and leisure commuting mostly by car and the city and of course the goods traffic leads to a total public transport ratio between region and city of only 30%. All together with the through-traffic, more than 500'000 cars every day cross the city boundaries and in 2015 it even could be up to 30 percent more. Increasing congestion, noise and air pollution will be the consequence, if the trends of suburbanisation, lower densities and increasing numbers of commuters with private cars could not be stopped by an integrated policy mix of using all potentials for inner urban housing development, improvement of the regional public rail transport (S-Bahn; Light Rail System) and inter-modality (Park&Ride, Bike&Ride).

The city recognises to be functioning only within a wider city-region delimitation - the mega-city region of Munich. Thus being the primary city, Munich assumes responsibility to sustainably deal with its resources in order not to foster unwanted urban sprawl and increasing mobility with private cars. Preventing increasing CO₂-emissions facing accelerated climate change and even the increasing costs of commuting-mobility and

infrastructure for a suburbanised, low-density settlement strategy call for action in cooperation of city and regional planning authorities.

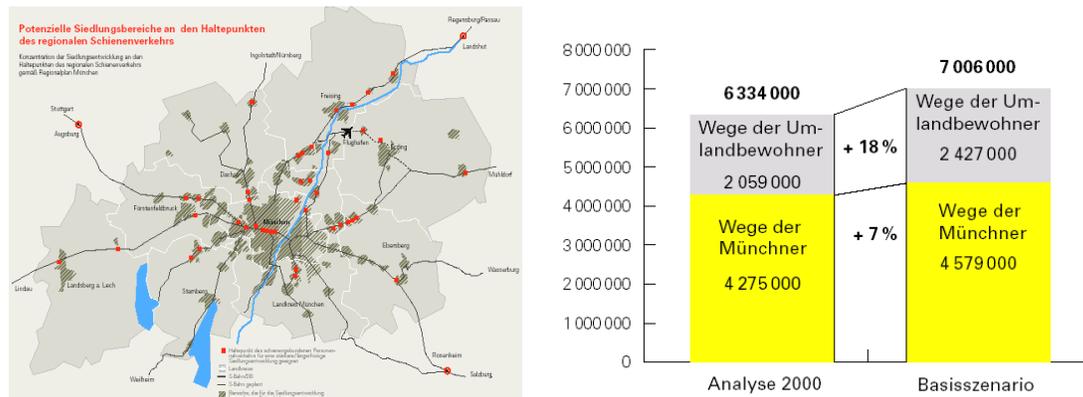


Figure 2 left: Preferred settlement areas (red), situated at railway-stops (S-Bahn) according Regional Plan; right: Development of traffic (rides) 2000 - 2015 – city (yellow) and surrounding region (grey), scenario: Munich traffic development plan (source: City of Munich)

At local level Munich has a highly elaborated integrated development concept, the “PERSPECTIVE MUNICH”, which follows the principles of “sustainability and urbanity”. Economic prosperity, regional cooperation, social balance and equity, inner development of the city instead of sprawl, and a sustainable mobility for all citizens are some of its guidelines. The city’s strategic guideline for spatial development is labelled “compact, urban, green”.

In line with its integrated, long-term-approach - which has a tradition of 45 years of integrated development planning – the guiding principles and strategies of PERSPECTIVE MUNICH centre on the city as a whole, as well as on the surrounding region. Within the framework of path finding-projects and local or sectoral concepts as well as action programmes – for instance for traffic development or assignment of housing and retail uses – these principles are then given concrete form. Key to countervail unwanted urban sprawl is two transversal strategies of the PERSPECTIVE MUNICH: “internal expansion” and “urban, compact, green”.

In the interest of sustainability, the use of previously undeveloped, unsealed land must be sharply reduced when new residential areas are being developed. The focus of internal expansion lies on concepts designed to reuse and restructure existing build up areas fallen out of their use (“*Flächenkreislaufwirtschaft*”) - for instance former industrial or railway land and former military barracks that lie within city-limits.

As a result of the privatisation of the federal railway and postal as well as telecommunication services and the reduction of military force – both of the German and the Allied forces - at the beginning of the 1990s, Munich experienced a ‘windfall’ gain in the form of a huge amount of inner city development resources – without reducing scarce open space. More than 60’000 housing dwellings could be realised on these internal expansion sites. For most users it is very attractive to concentrate activities on these restructuring areas since they are embedded in existing infrastructure, available and partly reusable buildings and mostly have rather good integration into the public transport network. The already existing urban context offers the chance to ameliorate neighbouring areas by new housing, more open space and a better social infrastructure.

One of the city’s top priorities in housing is to annually complete 6’000 to 7’000 units. This objective can first be achieved by internal expansion as just described and second by additional options like densification of existing housing areas by filling gaps, adding further floors etc. A third option is building up some areas at the periphery of the city-limits designated since long in the land use plan for development. But since a clear priority lies on

the internal expansion, peripheral development only takes place on these designated sites, if and in so far, as the internal restructuring areas are not sufficient to cover the demand for new housing.

“Compact, urban, green” as one of Munich’s key strategies for spatial development combines dense urban land use for all purposes with the promotion of mixed use developments when ever possible instead of mono-functional commercial or housing areas. Together with the polycentric system of district-centres that spread over the entire city the mixed use approach will also secure a density of social life and short distances for many citizens to get to their jobs, schools and shops. This will help to increase walking and cycling and using public transport instead of private cars for the every day mobility. “Internal expansion” and “compact, urban, green” seem tiny contributions to mitigating climate change and the necessity to reduce CO2 production. Nevertheless they are very important elements for sustainable urban growth, not only in European cities.

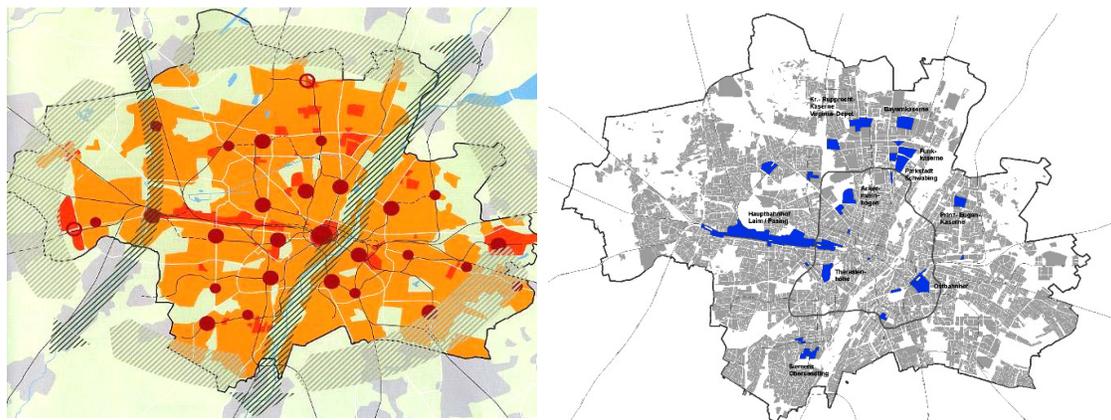


Figure 3 left: Spatial development guideline “compact, urban, green”; right: potential areas for internal expansion (source: City of Munich)

The notion of “green” in this context implies that parks and green open spaces in the city must not only be safeguarded and enhanced, but also significantly augmented in quantity. The rule in Munich is, that for every inhabitant in new build residential areas 17 m² of green open space in new public parks have to be provided. An important element of the strategy is the knitting of a network of green open spaces. It is constituted by regional green belts, big parks, green river banks, inner-city green belts or district parks and sport facilities like the world famous Olympic Park of the 1972 Olympic Games, which is still one of the most frequented parks in Munich for sports, leisure and entertainment.

3. Three flagship projects of Munich’s internal expansion strategy

3.1 Central railway lands

The central railway lands are situated between Munich’s main station and the station of Pasing, eight kilometres west of the city centre. These not yet adequately used former railway lands are covering 170 hectares. In 1997, based on a master-contract between the Federal Railway Company, their land development agencies and the city of Munich a complex planning process started to develop five independent new quarters for up to 19’000 jobs and 16’000 inhabitants with an amount of nearly 70 hectares of new green open space. The Railway Company and federal government as owners agreed to realise or to pay for all necessary green, social and traffic infrastructure - and for all costs of architectural competitions, planning documents and special expertises on environmental, traffic and other related aspects.

The new created quarters are integrated into their respective existing neighbourhoods and create new opportunities for their inhabitants with new parks, cultural and shopping establishments, new schools, kindergartens and nurseries. Pasing serves more than 75'000 travellers per day, thus being the fourth largest node of all railway stations in Bavaria. Around that railway node, a new shopping mall on former railway land will strengthen and help to modernize the traditional district centre.

A transversal east-west cycling path, independent from car traffic and parallel to the remaining railway tracks crossing the new green open spaces will in the near future help to connect the inner city with the western districts of Munich - attractive and fast for the increasing number of cyclists in Munich. Today, approximately 10 percent of all rides in Munich are made by bicycle, for 2015 the target is 15 percent.



Figure 4: Central railway lands, master plan (source: City of Munich)

In order to secure a social mix of groups with different incomes, in every of the five quarters 30 percent of the residential floor space is designated for public subsidised housing for low and middle income groups, preferably families with two or more children.

The planning process for this complex project had been organised in a cooperative management process between the city of Munich, the landowners and an increasing number of private partners, who had sold pieces of the former railway land for development. Since the whole area is being planned and built-up by a huge number of different private and some public developers the city of Munich organised regularly urban and landscape planning competitions in order to secure quality of the urban planning and the architecture of the single buildings, as well as for each quarter. For many of the single buildings and for the new public parks architectural realising competitions followed. An advisory commission of architects and landscape architects supervises the realisation process and discusses every concrete project before it gets building permission.

In all of the five quarters building of houses and planting of some thousand new trees had begun. The most inner-city quarter – the 'Arnulfpark' – has already housing and a new park, which have been completed in 2006. Arnulfpark today has already reached half of its envisaged capacity. Until 2012 the four quarters will be completed and the fifth and last will be under construction.

3.2 Trade Fair City of Riem, former airport

After 30 years of discussion, planning and building, 1992 the Munich International Airport was relocated from the eastern quarter of Riem (within the city boundaries) to Erding, some 36 kilometres northeast of Munich. As a result of an international planning competition, one third of the 560 hectares of land that was owned by the city of Munich was designated to be home of the new trade fair. The trade fair until then was squeezed in its inner-city location at the Theresienhöhe, only five minutes distance from the main railway station. The second third of former airport land – thus following the philosophy of "compact, urban, green" – was dedicated to mixed residential, manufacturing, office and commercial use. The last third was to be developed as a new public park with approximately 200 hectares. Dwellings for 16'000 inhabitants and approximately 13'000 work places will be created until 2015. The public transport connection to the inner city districts was planned by an extension of metro line 2,

which was completed in 1999. 1998 the new trade fair was opened in Riem. The first inhabitants came to the new quarter in the same year today almost 7'000 live in the "Trade Fair City of Riem". The very attractive "Riemer Park" with an artificial bathing lake for the summer and a skeleton hill for the winter season was opened 2005 with the event of a Federal Garden Exhibition.



Figure 5: Trade Fair City of Riem, master plan
(source: City of Munich)

For a more or less mixed social structure, up to 70 percent of subsidised housing was realised in the first parts of the new quarter and 50 percent in the latest portions. One result of this decision is the fact, that today the Trade Fair City of Riem is one of the quarters in Munich, where most families with children live, so that a third elementary school had to be implemented earlier than expected.

2005 at "half time" of the development of this new quarter, an external evaluation had been undertaken and showed some interesting results, as well as risks and open questions in implementing the guideline of "compact, urban green" (CITY OF MUNICH 2005b). Trade Fair City of Riem was designated as a guideline-project within the framework of PERSPECTIVE MUNICH - the urban development concept – and so far is a success story. It had proven that the decision to reuse the former airport land for a "three-thirds-strategy" with new trade fair, mixed city quarter and new public landscape park was a future oriented concept with enough built-in flexibility to meet changing needs and conditions during an overall planning and realisation period of more than 30 years.

3.3 Theresienhöhe, former trade fair area

Following the decision to relocate the trade fair from the inner city to the former airport site in the Trade Fair City of Riem – 45 hectares of valuable land – integrated in the existing metro network became available, which fortunately was owned by the city of Munich. Following the guideline "compact, urban, green" 1996, two years before the fair was to be relocated, an international planning competition was started. The prize winner's idea was to create a dense and lively inner city quarter in the tradition of the European City, based on a grid of building blocks of 70 by 70 metres. Public streets and squares incorporating references to the neighbouring quarters with great flexibility for the planning of the individual lots show, that the rules of the European City are still suitable for urban developments of tomorrow. In the middle of the Theresienhöhe quarter the historic Bavaria Park with its 150 years old huge trees focuses the attention and gives the new quarter a historic dimension and a very specific identity. 25 percent of the quarter is designated as park, promenade, and play ground or car free public space for recreation and leisure activities.



Figure 6: Theresienhöhe inner city quarter, master plan, architect Prof. Otto Steidle (source: City of Munich)

Today the new quarter for approximately 3'000 inhabitants and up to 5'000 workplaces is almost completed, including a new elementary school, several kindergartens and nurseries, a youth centre and a beer-garden beside the historic congress hall and the museum halls. Despite the inner city location and the high land value, city council decided according to the social policy guidelines of PERSPECTIVE MUNICH to realise 50 percent of the dwellings as subsidised housing for low and middle-income groups.

In the few years since the old trade fair site has been developed into a new urban quarter Theresienhöhe, it has already proven as perhaps being the best of all the examples for "compact, urban, green" so far implemented. At least it is proof of the advantages that accrue by following a coherent internal expansion strategy. The result is the emergence of an urban and lively quarter that displays a combination of hybrid uses with high density and a significant amount of open spaces as well as green areas that have been structured according very demanding legal standards.

4. Regional approaches - "Settlement and mobility-project"

A Regional Plan exists since 25 years, which roughly defines regional green belts and areas preferred for settlement, focussed on the corridors of the regional rail system (S-Bahn). Principles and objectives are formulated in the accompanying text of the Regional Plan for settlement, green, business and retail as well as transportation infrastructure. The implementation of this plan is not stringent since planning authority in Germany is fragmented according to its decentralised federalist state system. Based on constitutional rights of local self-government, the responsibility for all land-use and building regulations lies with the 185 small and medium sized local authorities and their respective territories. In order to promote inter-municipal cooperation with regards to sustainable settlement and mobility issues one is left with developing so called 'win-win solutions' on a voluntary basis. Recent product of this soft and "persuasive" cooperation strategy is an action-oriented research study project called "Settlement Development and Mobility in the Munich Region" (PLANUNGSVERBAND 2008). This project is jointly financed by the city, the Planning Association of the Region of Munich, the Munich Public Transport Association (MVV) and co-financed by the Bavarian State Ministry of the Interior. This study whose first part was

completed in March 2008, shows on the one hand in detail the non built-up land reserves within a radius of 2'000 meters around existing and planned railway stations. These reserves thus form the potential for housing and sum up to 1'220 hectares (municipal reserve land not included), which will be good for up to 40'000 housing units – depending on density. Looking at the population projection these reserves will cover nearly 80 percent of the needs for additional housing outside the city itself up to the year 2020. Additional 1'200 hectares are available around the railway stations for manufacturing, offices, mixed and different special uses.

Within the city, almost all of the long term development land reserves for housing of approximately 800 hectares and for up to 60'000 additional dwellings lie within 1'000 meter of an S-Bahn, Metro or Tram stop.

On the other hand, the study shows the existing and planned public transport structure (rail, bus, P&R, B&R). A third issue of the project looks at mobility costs based on a complex calculation model for different owner/occupier-types of households and for every city or local community area in the region. The model will be able to show overall repercussions – in combination with the average land prices in the different areas of the region – that individual decisions for presumably cheap land but badly connected to public transport will have for private households.

In the second phase of this research project, five to ten different types of local areas (cities, villages in different distances from Munich and with different quality of public (rail) transport) will be screened more in detail. The objective is to come up with strategies and practical suggestions for integrated local settlement and mobility policy that is in accordance with the Regional Plan and the principles of compact urban development that is to concentrate new housing preferably within the 2'000 meter-radius around the rail stations. An additional research module will focus on the overall infrastructure costs that accrue for different types of settlement configurations: served by rail stations, B&R/P&R intermodality with high densities, low-density sprawl-development not connected to public transportation. The combination of spatial, urbanist, traffic and economic approaches should intensify a broad political discussion about the future settlement and mobility strategies in the Munich Region.

The Regional Planning Association alone does not gather enough legal competencies to execute the necessary operational power. It would be necessary to create a special and operative regional agency for settlement and infrastructure development, to take action in this respect and to secure the social and spatial balance within the entire region. Such an advanced body still is not in sight; even the debate about its relevance has not really been started. Local self-governance as well as voluntary, informal cooperation are today the only existing forms - for instance in the Association for Recreation Areas, in the Planning Association or in the recent Initiative European Metropolitan Region Munich (REISS-SCHMIDT 2003, THIERSTEIN ET AL. 2006b).

5. Evaluation PM – methodology and process

PERSPECTIVE MUNICH calls for regularly being reviewed and adapted to changing conditions. Against a background of social and economic change, it is also intended, from time to time to review the underlying principles of PERSPECTIVE MUNICH. The following sections present results of the first external inter-mediate evaluation of this integrated urban development strategy. A special focus emphasises methodological issues of how to make a transversal, comprehensive urban strategy assessable and generally formulated objectives tangible.

External impact evaluations of policy programmes can either adopt a facts-only approach or subscribe to a more participatory approach. This case study follows the latter by combining a mixture of indicator-based analyses of individual strategic objectives with a qualitative approach. Participatory, qualitative approaches usually are chosen in order to grasp more comprehensively the complex inter-relationships between numerous strategic objectives and individual beacon projects. Figure 7 gives an overview of the particular methodology chosen by the external evaluators of the PERSPECTIVE MUNICH.

A series of analyses of available impact indicators that help assess the achievement of objectives as well as official documents and press releases produced the empirical basis for extensive interaction with in-house practitioners as well as outside experts. A special emphasis was put on involving the various responsible persons from the city of Munich. Individual in-depth interviews with in-house persons in charge of specific aspects of the guiding principles and the projects defined in the PERSPECTIVE MUNICH, in-house group discussions, interviews with the demand-side of the urban development strategy – the economy, civic groups, media, science, vocational associations, and regional governance bodies – gave additional insights and assessments of earlier factual findings. Intermediate results were fed back into a steering committee. Two visioning workshops with in-house as well as international experts dealt with potential futures of the city of Munich.

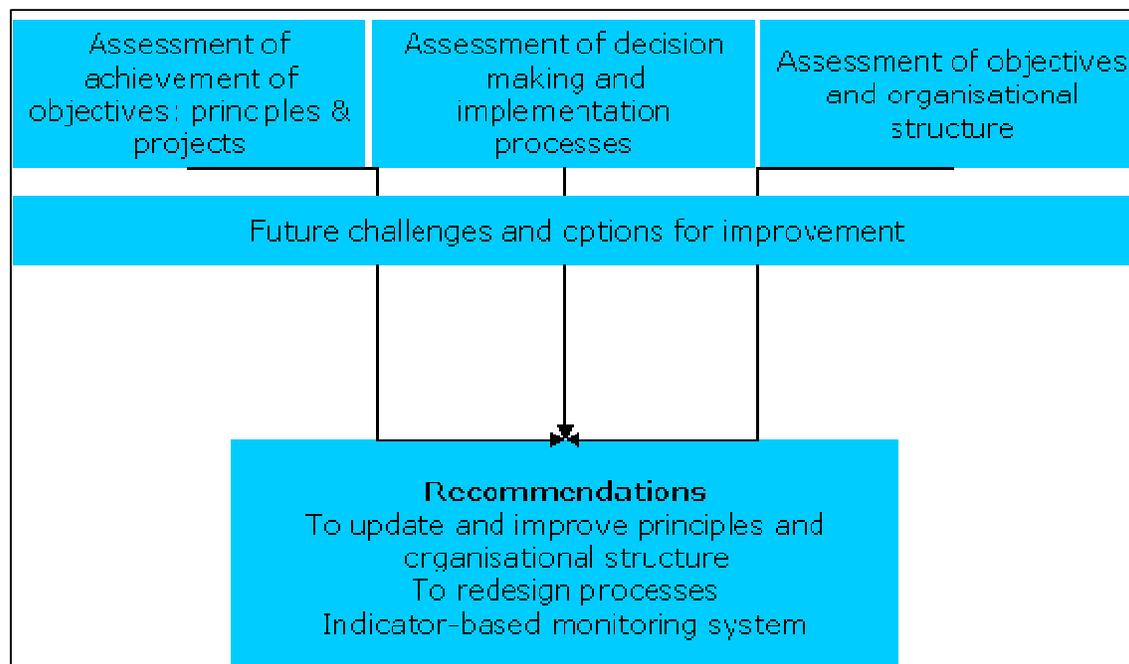


Figure 7: The various tasks of the external evaluation of PERSPECTIVE MUNICH (source: City of Munich)

In the year 2007 the overall results were compiled first in an extended report internal to the public administration. After open deliberation in the city council at the end of 2007 and early 2008, a short version of the findings was finally released to the public in the summer of 2008 via the city of Munich's official website (URL: <http://www.muenchen.de/Rathaus/plan/stadtentwicklung/perspektive/umsetzung/159824/index.html#eval>). The following section summarizes the main findings concerning the overall assessment of the achievement of objectives and further questions dealt with in the external evaluation (figure 8).

6. Evaluation PM – results and recommendations

The overall assessment of the external evaluators highlights the following findings:

- PERSPECTIVE MUNICH manages to combine policy approaches that deal with the built environment and spatial urban development as well as with socio-economic issues key to the overall well being of a city of the importance of Munich.
- PERSPECTIVE MUNICH as an integrative approach represents a comprehensive attitude of urban development that seems prone to tackle the up-coming challenges for Munich.

- PERSPECTIVE MUNICH documents the thorough and constant commitment to upgrade and redesign the long-standing Munich tradition of city planning.
- PERSPECTIVE MUNICH proves flexible an instrument to incorporate future key issues such as urban strategies on climate change, social inclusion or territorial governance.

One of the core tasks was to assess the degree of achievement of objectives with regard to a selection of guiding principles of the PERSPECTIVE MUNICH. Figure 8 summarises the results.

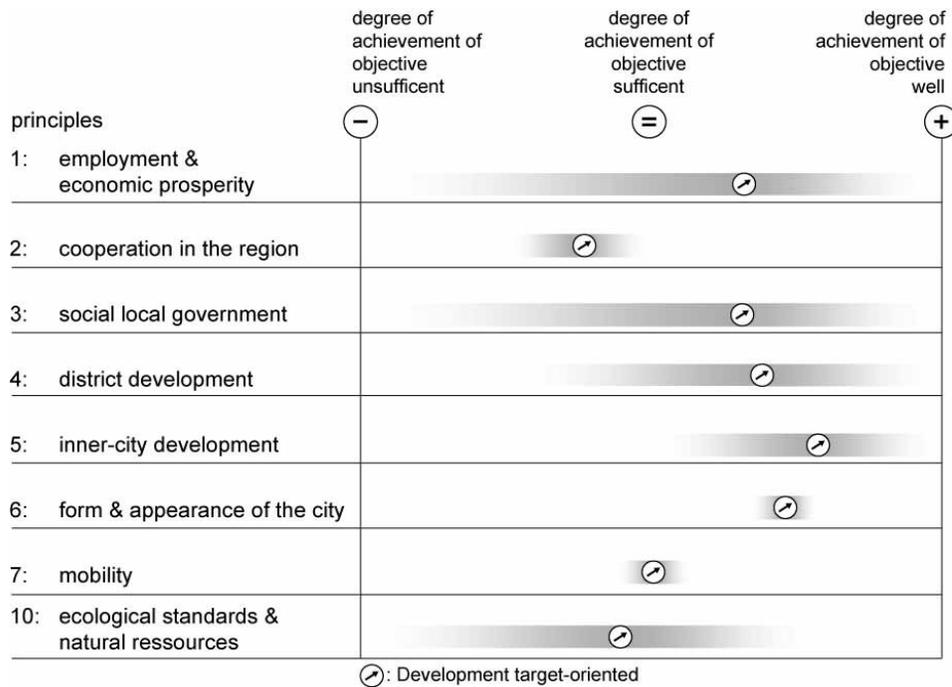


Figure 8: Degree of achievement of objectives of guiding principles of the PERSPECTIVE MUNICH (source: City of Munich 2007)

Figure 8 shows for each guiding principle the average assessment of all respective partial goals. The spread in the assessment of the individual partial goals is represented by the width of the fading-out colour bar. A reading example clarifies the interpretation of the figure above. The highest degree in achieving the objectives set by the PERSPECTIVE MUNICH are attributed to the principles of 'qualified inner-city development – compact, urban, green', 'strengthening individual parts of the city through district development' and 'preservation of the form and appearance of the city of Munich and promotion of new architecture'.

On the other end of the continuum we find two principles that the evaluators assessed as being not yet sufficiently implemented or achieved: 'improvement of cooperation in the region and enhancement of the competitiveness of the economic area' as well as 'developing ecological standards and safeguarding natural resources'. With regard to the general goal of countering urban sprawl the former of the two principles obviously very much is dependent upon the co-operation with neighbouring communities of Munich in order to achieve a significant diminishing in the consumption of surface and land.

In the view of the recommendations, the evaluators identify important inter-relationships between the guiding principles of the PERSPECTIVE MUNICH (figure 9). On the central axis of the figure you see a series of principles that produce a sort of positive cumulative causation. After a certain period of time this harmonious development produces setbacks for overall urban development, which are depicted on the left as well as the right hand side of the figure. Thus, two vicious circles begin to unfold that after some time again feed back into

positive causation with regard to the principle of ‘employment and economic prosperity’. This cumulative impact model indicates the difficulties and the challenges that any comprehensive urban development strategy like PERSPECTIVE MUNICH has to face and to cope with.

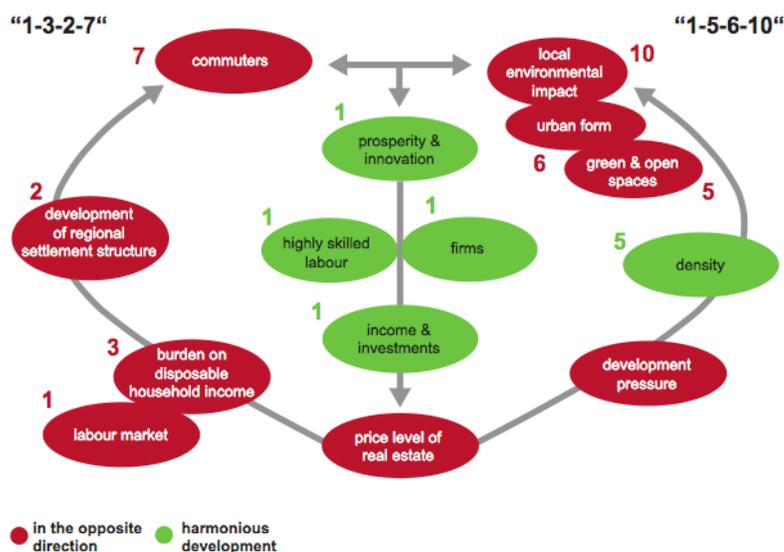


Figure 9: Inter-relationships between guiding principles of the PERSPECTIVE MUNICH (source: City of Munich 2007)

The evaluation report finishes off with recommendations concerning strategic principles as well as organisational structure. The PERSPECTIVE MUNICH is to be developed further into an overarching spatial vision for urban development of the city of Munich. The proliferation of guiding principles over time has not helped the strategy to be easily communicated to the broader public. A spatial vision should orient itself on the principle of a sustainably balanced city – and region, as the “natural” partners in a common future. On a strategic level a few cross cutting guiding principles are to bind together the numerous functional principles and operational projects. Thus the PERSPECTIVE MUNICH would be rendered more tangible and visible. This more adequate restructuring would help to integrate PERSPECTIVE MUNICH into further existing policies of the city of Munich. Finally, on the structural level of the organisation a permanent cross-departmental steering committee as well as an external board of experts is recommended.

7. Lessons learnt, open questions

The case study has given a brief glimpse about integrated approaches, strategies and projects to secure and develop Munich as a sustainable, liveable and ecologically responsible growing city and region. The evaluation of the PERSPECTIVE MUNICH as well as the accompanying guideline projects give some clues that are transferable also for other mega-city-regions – with respect to methodology strategy and technicalities.

First, it becomes clear, that a strategy of “internal expansion” and reuse of former industrial, military, airport or railway lands is without alternative in respect of sustainable development. Existing infrastructure, positive side effects for neighbouring quarters, avoiding of further consuming and sealing agricultural land and mostly inner city locations with short distances and good public transport facilities are not only in respect to urbanist or ecological, but also it seems that even economic cost-benefit-approaches argue against further urban sprawl and in favour of an internal expansion in growing cities.

Second, an integrated urban development strategy like PERSPECTIVE MUNICH seems to be a precondition for managing long term planning and implementation processes of internal expansion. Having said that, it also is evident that such an inter-related strategy only can bear fruits through a thorough and open co-operation and communication process that involves a fair number of public and private stakeholders. PERSPECTIVE MUNICH works for a democratic local self-government only on the basis of transparency of planning decisions; thus its documented strategy and the accompanying communication policy also serves the purpose of being a medium and a platform for participation of citizens and stakeholders in discussing and designing a liveable urban environment for their own future.

Third, there is no doubt, that sustainable urban development strategies need a complementary approach by adequate strategies and governance capacities on the wider regional level. Fragmentation of power and planning capacity, different rhythms on decision making and philosophies between core cities and its wider mega-city-region are counter productive and weaken the performance of the city and the region in the international competition.

Moreover, one of the key lessons learnt from that experience deal with the evaluation's basic participatory approach: how to assess the performance of a public administration's strategy and at the same time to involve the responsible civil administrators as experts and keys to a continuous improvement process. Thus external evaluation of the city's urban development strategy adds significantly to evidence-based policy making as well as to planning reliability, which in turn proves to be a major asset for attracting investors, firms and inhabitants.

Sound integrated strategies and plans are necessary in order to avoid urban sprawl and to develop an urban specific "quality of place" for the future knowledge economy. But beyond the instrument of an integrated strategic concept and guideline projects, a large municipality like the City of Munich needs adequate social, communicative and methodological skills. Thus at the end, it comes down to the human capital that also is in dire need for public bodies wanting to shape their own future.

Some open questions for future research remain, which may be fruitful also to discuss with planning practitioners from emerging and rapidly growing mega-city regions.

1. Positive-sum games: which preconditions are necessary in decentralised federalist nation states in order to get core cities and its neighbouring suburbanised communities interested in a sustainable land use policy?
2. When being at the table: what win-win situations are conceivable that make autonomous municipalities deliberately give away some of their planning competencies in exchange for overall benefits of more sustainable land use?
3. Evidence-based policy making: Which role would integrated, inter-disciplinary impact models play that combine a cost-benefit perspective of direct, indirect, induced and catalytic effects of land-use options with technical, social and cultural infrastructure and their impacts on the budget of municipalities, regions or other territorial bodies?

These are only a few questions that have arisen from the external evaluation experience for the city of Munich. Of course there are partial answers ready: some derive from research, some from in-depth and first hand experience by practitioners. But only by exchanging them and making them meet in open self-critical debate, public bodies as well as private actors can learn a direly needed lesson.

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More illustrations that may be helpful to understand the case study will be presented at the workshop.