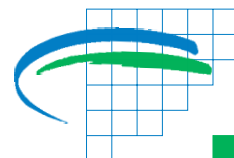




Assessment of Messestadt Riem

Sustainable urban development in Munich





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Messestadt Riem

Covering approximately 560 hectares (approx. 1,400 acres), Messestadt Riem is located in the east of Munich, just 7 kilometres (approx. 4 miles) from the historical old town district. Since the 1992 opening of the new airport in Erdinger Moos, a new community has been in development on the site of the old Munich-Riem Airport.

The urban planning concept envisions a green place to live and work. The project was called Messestadt Riem as a result of the decision to move the Messe München (Munich Fairgrounds) from Theresienhöhe in the city's centre to Riem. By the comple-

tion of Messestadt Riem in 2013, a projected total of 13,800 jobs will be created, along with approximately 6,100 residential units with space for around 14,000 people.

Planning principles for the community

The general basis for both planning in Munich and the realisation of Messestadt Riem is PERSPEKTIVE MÜNCHEN, the city's urban strategic development plan. PERSPEKTIVE MÜNCHEN currently comprises ten guidelines with the goals of economic, social, spatial and regional development for the city, which are all based on the interaction

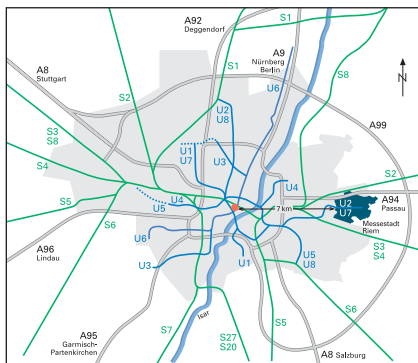
of three central ideas defining the envisioned urban community:

- compact (space-saving planning, area-appropriate density, short travel distances),
- urban (varied, dynamic mixed-use),
- green (parks and play areas close to housing areas and preservation of valuable open spaces).

Messestadt Riem is a model project ("Leitprojekt") of PERSPEKTIVE MÜNCHEN. It exemplifies how the aims of PERSPEKTIVE MÜNCHEN will be realised in a groundbreaking and forward-looking manner, using innovative methods.



1987	Decision to move the fairgrounds to Riem
1990	International Planning Competitions for Neu-Riem begins
1992	Air traffic stops at Munich-Riem
1993	Founding of MRG (Maßnahmeträger München-Riem GmbH)
1994	Groundbreaking for the new Messestadt in Riem and start of housing construction
1997	First trees planted in the Landscape Park by mayor Christian Ude
1998	Opening of the New Fairgrounds in Riem
1998	Sale of lots in the northwest business park begins
1999	First residents move into Messestadt Riem
1999	Opening of underground line 2 east to Messestadt Riem
1999	Sale of lots in the northeast business park begins
2004	Opening of the Riem Arcaden shopping centre
2005	Messestadt Riem is the location of the BUGA 2005, (Germany's National Garden Show)
2013	Estimated final completion of Messestadt Riem



Sustainability as a planning principle



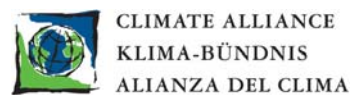
Sustainability is a core principle of urban development for Munich. This is reflected in the guidelines of PERSPEKTIVE MÜNCHEN:

“PERSPEKTIVE MÜNCHEN is dedicated to two principles – sustainability, which is defined as living modestly today to ensure the quality of the city for future generations, and urbanity, or

those positive aspects associated with cities, such as cultural variety, tolerance, economic opportunity and creativity, which can only arise as the result of density and diversity” (Landeshauptstadt München 2003).

Munich’s principles for sustainable urban development can be summed up by the terms compact, urban, green.

For PERSPEKTIVE MÜNCHEN and Munich’s Agenda 21 project, the principle of sustainability is firmly embedded as a central aim in the planning and realisation of Messestadt Riem. This allows an assessment as to the degree of sustainability achieved when evaluating the goals for Munich’s urban development and the expansion of Messestadt Riem.



Assessment of Messestadt Riem 2004

It is a declared aim to assess the level of planning goal attainment for Messestadt Riem in an ongoing manner, while the project is in progress. To this end, the city of Munich commissioned a study by BPW Hamburg and Bulwien Gesa AG entitled, "Evaluation of the Sustainability of Messestadt Riem". The study covered the areas of economy, ecology and social issues, as well as the greater urban planning context of Messestadt Riem.

The basis of the evaluation comprises the urban planning goals for Munich and the specific aims for development of the new community, in particular:

PERSPEKTIVE MÜNCHEN, ecological building blocks for Messestadt Riem (Ökologische Bausteine parts 1-3), social use and services concept, as well as Munich's business development program *Standortperspektiven für die Wirtschaft*.

Defining characteristics of Messestadt Riem assessment: Scale and timing

The area evaluated in this study is Messestadt Riem as an expansion of Munich's borders. The assessment of its characteristics in the context of both a city district and the city as a whole present a particular challenge.

In addition, the assessment is being conducted at the halfway point of the planning and realisation phase. Since Messestadt Riem is to be completed by 2013, there will be opportunities for the assessment results to assist in decision-making for future planning projects within the community.

	Theme 01a	Soil protection – resident-job density – High resident-job density of 13,716 res.+jobs/km ² of urban developed area (housing and transportation)
	Theme 01b	Soil protection – development density and utilization distribution – Clear differentiation in developed and undeveloped areas – Low degree of overlap – High proportion of parkland
	Theme 02	Species and habitat protection – creation and protection of areas with a high preservation value – High proportion of areas with a high preservation value; goal exceeded
Currently no assessment	Theme 03	Water balance – conservation of drinking water – Insufficient data/data expressiveness
Currently no assessment	Theme 04	Climate protection – reduction of green house emissions– – Insufficient data/data expressiveness
	Theme 05a	Public transportation infrastructure – density of private vehicles and MVV pass holders – Low density of private vehicles – Rising density of MVV pass holders
	Theme 05b	Public transport infrastructure – accessibility of public transport – The public transport network covers entirely the residents of Messestadt Riem
	Theme 06a	Economy – job creation – Companies in the Business Parks offer jobs – Space available for business
	Theme 06b	Economy – family and career – Proportion of part-time workers in line with national average
	Theme 06c	Economy – living and working – Linkage between community and workplace yet to be established
	Theme 07	Economical aspects of the project – impact on the city budget – Goal of non-impact on the city budget (with respect to investment) to be attained

	Theme 08a	Social space – distribution of poverty of wealth – Targeted socio-economic mix of population achieved
	Theme 08b	Social space – household size – Messestadt Riem accommodates large families
	Theme 08c	Social space – provision of residential areas – Reduced land use in residential areas
	Theme 09a	Public services – social infrastructure – High level of public services with social infrastructure facilities achieved
	Theme 09b	Public services – advancement to secondary schools – Low demand for secondary schools, trend unclear
	Theme 09c	Public services – daily needs – Extensive proportion of retail space per resident, limited selection of local grocery and shops for daily needs
	Theme 09d	Public services – quality and usability of urban space – High proportion of recreational space, goal exceeded
Currently no assessment	Theme 10	Citizen involvement – willingness to participate and identity – Insufficient data/data expressiveness
	Theme 11	Neighbourhood design – quality and acceptance of the architecture – Average architectural quality – Acceptance ambiguous

- Positive/goal attained
- Negative/goal not attained
- Neutral

Goals for Messestadt Riem – ecology

The central goals for Messestadt Riem are based on prudent stewardship of nature.

A special emphasis is placed on the limited resource of space. The project aims to limit impact on structures worth preserving, to reuse materials locally, to balance recreation with nature preservation, and to conserve space by building in harmony with the surroundings.

This includes responsible management of water and energy as natural resources.

Conceived of as an expansion of Munich with an environmentally friendly transportation concept, Messestadt Riem is also designed to limit impact on residents and nature in several respects. Alternative transportation (public transport, bicycling, walking) will strengthen environmental awareness, contribute to a reduction in emissions in Messestadt Riem, and improve the quality of open spaces in both recreational and natural areas.

Goal attainment in the area of “ecology” – summary of results

Ecological goals in Messestadt Riem have already been largely attained. This is attributable to the following primary factors:

Compact construction design and Landscape Park provide high-quality recreational and living spaces

- high building and housing density
- minimal overlap of landscapes
- Landscape Park of value to the entire city

Good public transport linkage as a core quality

- integration in the underground network (U-Bahn)
- 99.6 percent of the housing areas / residents currently served by public transport (85.8 percent expected at completion)
- high levels of public transport ridership

But:

only few examples of ecological construction

- building quality in line with legal standards
- ecological architecture is not a differentiating or unique characteristic of Messestadt Riem

further need for study in the future

There is currently insufficient reliable data to assess the issues of water balance, climate protection and waste generation



Open spaces concept

Water concept

Energy concept

Clearing, remediation and recycling concept

Transportation concept

Waste management concept

Goals for Messestadt Riem – economy



As a state capital, Munich has a commercial development program that pursues the aim of providing suitable locations for traditional businesses while simultaneously creating spatial development potential for new technologies and forms of production. In Messestadt Riem, the northwest and northeast business parks are set aside for this purpose. The focus in the northwest business park is on the promotion of new technology companies. The structures in the northeast business park are goods-producing businesses including emissions generating operations.

The PERSPEKTIVE MÜNCHEN guideline, “creation and promotion of jobs and economic prosperity”, advances

both social and spatial goals. Socially, it means the establishment of job opportunities for specific groups (especially part-time jobs) in Messestadt Riem, that forms the basis for linking the family and career sides of life. Spatially, it means the intermeshing of living and working space is an overarching planning goal for Messestadt Riem.

Economically, from the point of view of the city and the city treasury, it is important to conduct the project Messestadt in a way that minimally impacts the budget. The long-term goal is a “budget neutral” realisation of the development, so that income and expenditures balance out the investments to be made by the city.



Goal attainment in the economic area – summary of results

With regard to all of these goals and the selected indicators there is currently no simple way to ascertain the level of attainment. However, the study provides forecasts and poses open questions to be taken into account in the further course of planning.

A high number of jobs can be expected

- current situation: still 50 percent behind the targets set
- but: less space required per job than projected
- at completion: 21,000 rather than 14,000 jobs
- high demand for goods-producing business spaces

Low share of sustainably operating companies

- low unemployment density in Messestadt Riem
- proportion of part-time workers in line with the national average
- only limited use of “Jobtickets” (a subsidised transit ticket), resource-conserving operations or affirmative action for disadvantaged applicants

Can the proximity of living and working space be successful?

- proximity of living and working space as an underlying planning principle

- current situation: the convergence of both aspects is still rare
- high prices for non-subsidised housing as an obstacle for employees
- residents’ level of qualification do not match requirements of companies and businesses
- change seems possible over time

The goal of city budget neutrality can be achieved

- according to the income-expenditure projection, investment costs can be recovered without impacting the city budget
- income and expenditure risks persist, however



Goals for Messestadt Riem – social issues



Actions in the area of “sustaining and creating affordable living space” are based on the “Wohnen in München III” program. A large proportion of the 1,800 subsidised housing units planned annually for Munich are being constructed in Messestadt Riem.

There are also other specific goals for housing construction, beyond pure numbers: a close linkage of the different subsidised and non-subsidised units, as well as the observance of the “one-third rule” (one-third non-subsidised, one-third subsidised according to the Munich model, one-third standard low-income housing), is geared to ensuring that Messestadt Riem does not suffer from social tensions.

The fundamental planning goals “identity and city design” and “complete infrastructure” describe the goals for social development of Messestadt Riem. For instance, the necessary infrastructure (both social and public services) is to be built up as housing is constructed. In this way, the infrastructure will be available just when it is needed. This includes the provision of adequate free space for recreation. The design of the architecture and undeveloped areas is to create a typical community character with spaces that can be figuratively “owned”, so that the identification of residents with their community is promoted.

Goal attainment in the area of “social issues” – summary of results

The assessment of the extent to which the social goals for Messestadt Riem have been attained cannot be completed at the midway point of the realization phase, especially due to the influx of new residents. The current assessments relate only to the present time. No projections can be made as to potential changes. The study covered the issues of resident composition, public services and community identification, among others.

Resident composition in line with political aims

- average household size approximately two-thirds higher than the average for Munich
- balanced distribution of household sizes
- low housing area utilisation per capita
- high proportion of transfer payment recipients (twice as many public assistance recipients, three times as many housing allowance recipients as the average for Munich)

Good level of social services facilities

- great number of childcare places
- cultural events primarily organised by community initiative

Differing perception of architecture

- Residents critical of the stiff design of architecture and free spaces
- Quality and scope of green spaces appreciated
- Landscape Park as a recreational area for eastern Munich

Offering of local shops with potential for improvement

- Riem Arcaden as a multi-regional shopping centre
- Lack of access to discounters
- Local corner shops missing

Outlook for strong identification positive

- extensive identification of residents as “pioneers of Messestadt Riem” after just 5 years



Urban design and sustainability in Messestadt Riem I

To a large extent, the urban planning and architectural concepts that were laid down as a foundation determine the character of the young expansion community of "Messestadt Riem". As a model project of PERSPEKTIVE MÜNCHEN, the principles guiding the building of the community are *compact-urban-green*.

What effect does urban development based on these principles have on the attainment of goals and the creation of a new city district?

Planning principle: compact

The compactness of Messestadt Riem, achieved through space-saving planning and area-appropriate densities, is best illustrated by the emphasis of higher density in the north of the site. The design does not call for a suburban neighbourhood, but for an integrated part of the city, i.e. an *urban* district. The proximity of various uses

to one another is also meant to allow short travel distances within the area.

At its current stage of construction, it is clear, especially for the residential portion, that short travel distances separate the underground, shopping centre, and the Landscape Park. The position of the main north-south thoroughfare and the green fingers that reach deep into the residential areas result in a number of junction-free zones. Whether or not this can be realised in future areas of development, remains to be seen since the growing distance from the public facilities will mean that larger roads carrying traffic will have to be crossed.

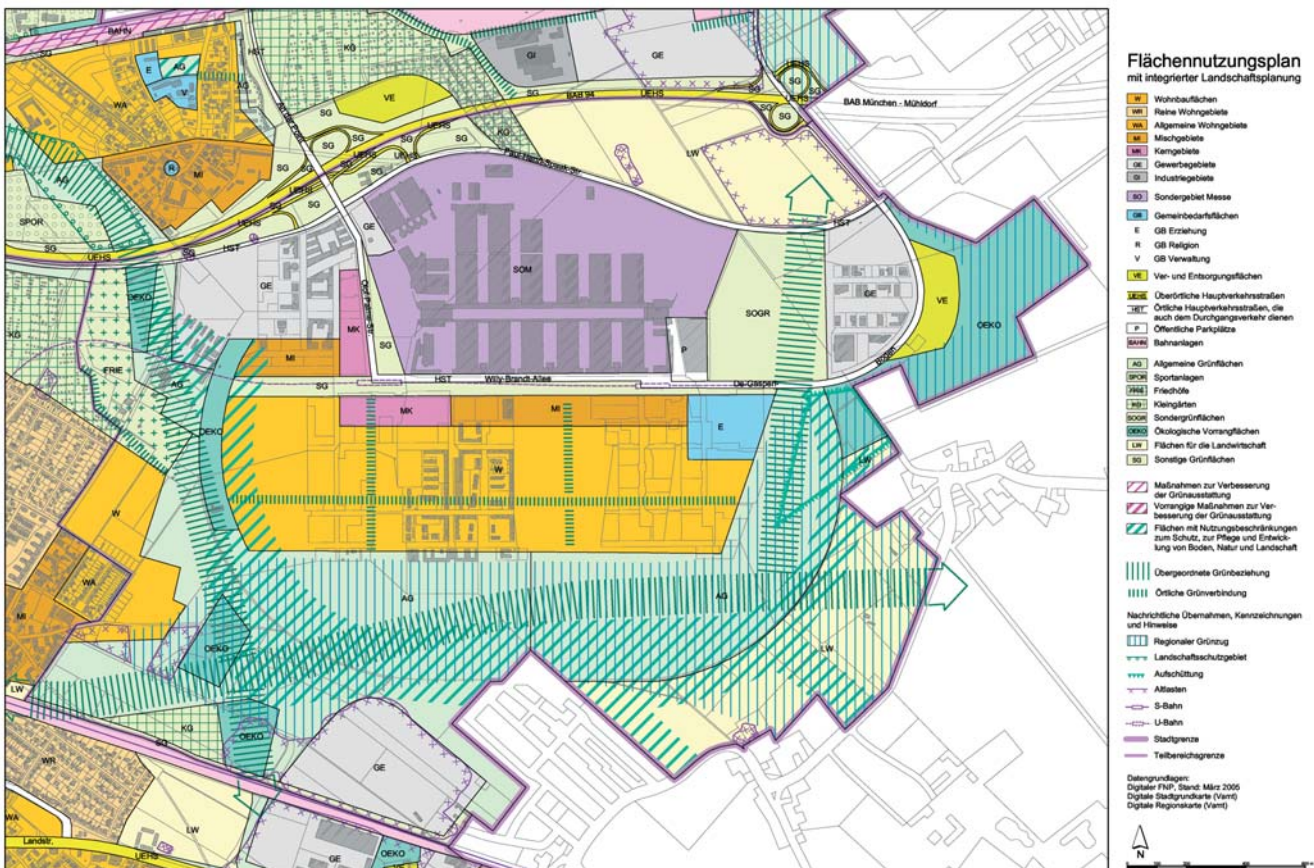
The basis for the use of the land was the "one-third solution":

- one-third of the area for the New Fairgrounds and business,
- one-third for housing
- one-third for natural areas (measured by the boundaries of the old airport)

Taking into account other, non-developed areas (cemetery expansion in the west and farmland in the south-west), the proportion of natural areas was increased during the realisation phase. Here, the linkage of open, free spaces and developed areas is a prominent feature. The interweaving between residential areas and open, free spaces are also clearly defined by the wedges of green.

Especially in the northwest business park, there is still a great deal of land available that cannot be marketed due to the current state of the economy. Despite the high density, adequate natural and recreational areas have been provided in Messestadt Riem in accordance with the play area concept and open space plan.

From an ecological point of view in particular, the concept of compactness has been sensibly implemented in Messestadt Riem.



Urban design and sustainability in Messestadt Riem II



Planning principle: urban

Urbanity entails a high degree of mixed use, distributed amongst small groups. Thus, concepts such as variety, wide-ranging infrastructure and provision of cultural, recreational and – to a limited degree – social facilities are also part of urbanity.

This ideal of a colourful city district has been largely realised in Messestadt Riem. The conglomeration of different uses in Messestadt Riem, such as trade fair, business, living and retail, is a source of cooperation as well as conflict.

Such conflicts arise in particular from the (trade fair) traffic (deliveries, parking) and the related burdens on the residential areas. On the other hand: the integration of the residential areas in the light rail network has been justified economically in connection with the relocation of the New Fairgrounds.

Conversely, the proximity of facilities (shopping centres, office space, hotels), represents an advantage for the fairgrounds over a green-field location. Synergies between the companies of Messestadt Riem and the fairgrounds have only been observable to a limited degree up to now, similar to the still lacking interaction and intermeshing of residential and working areas. However, all the pre-

requisites are in place for the establishment of such intermeshing in the future.

A closer look makes clear that obstacles (e.g. disruptive businesses, lacking investor interest in mixed use) have hindered the distribution of mixed use among small groups. Although the planning of the plazas envisioned the establishment of small business centres, there is currently little indication that this will be achieved. This can be attributed to the larger space requirements of national chains, the limited willingness of small business to shoulder risks, and limitation of investment in the current economic climate.

At present, it would appear to be an exaggeration to call Messestadt Riem urban, despite its architecture and mixed-utilization characteristics. The necessary variety and organic structures are lacking; densely constructed suburbia does not necessarily create urbanity. The most significant yardstick of urbanity is the subjective impression of residents, the individuals working in and using the area. At this time, there is no data concerning such subjective evaluation.



Urban design and sustainability in Messestadt Riem III



Planning principle: green

The planning principle green entails the creation of natural and play areas near to residential areas and the preservation of natural areas.

The decision to leave 50% of Messestadt Riem green has contributed significantly to the proportion of natural areas available. In this context, the attempt was undertaken to impact the existing vegetation as little as possible. Formerly undeveloped areas in the south of the community will also be left in a natural state in the future. Beyond benefiting Messestadt Riem itself, the Landscape Park established here fulfils a function for citywide benefit, local climate and creation of open spaces.

Still, the initial impression of Messestadt Riem is not necessarily green: visitors entering Messestadt Riem by underground or car first notice the

built-up environment. Passing beyond, the green character of Messestadt Riem becomes clear. This is accomplished through the fingers of parkland that penetrate deep into the developed areas. The present small size of the trees also conceals the green ambitions for the community. The perception changes as one passes through the garden gates. Once inside, the integration of nature into the city, a goal for all new developments in Munich, is clear and pervasive.

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