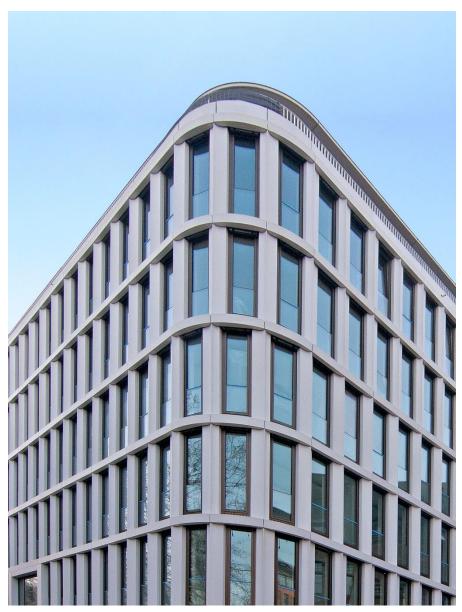




Office Space Market Cologne March 2019



Kaiser Hof

© Greif & Contzen 2019



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Good prospects for property developments

Dear Sir or Madam,

After nine years of stagnation, the prime rent in Cologne's office letting market increased significantly in 2018, by around seven percent, reaching EUR 23.00 per square metre. This level had been reached or even exceeded before, with individual contracts. However, these accounted for too small a share of the total take-up to provide for an increase of the prime rent. This changed in 2018, thanks to a number of large-scale leases concluded in the top price segment.

Letting contracts concluded for new buildings, and further decreased vacancies have shown once again in 2018 that property developments are now even more important for further market development, than in times of a more relaxed supply situation. We are therefore going to take a detailed look at the issue of "completions" in this report, in the form of a separate analysis that goes beyond 2019, and in which the most important hotspots of current and future market activities are identified. Various construction projects are planned for these areas, and construction has already begun in some cases.

The choice of suitable existing buildings has been rather limited for a while now, especially for tenants requiring large units. Now there are finally signs of increasing completion volumes, and of further development of good locations even beyond the city centre. The current market situation is expected to relax as a result.

In addition to our account of the general development of the office space market in 2018, the following pages also include an outlook for 2019.

If you have any specific questions regarding Cologne's office letting market, please do not hesitate to get in touch with us.



Yours sincerely

Florian Schmidt Head of Office Properties Greif & Contzen Immobilienmakler GmbH



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Office space market Cologne – key figures, development and forecast

| Year | 2015 | 2016 | 2017 | 2018 | Development | 2019 | Trend |
|---|-------|-------|-------|-------|-------------|-------|-------|
| | 2013 | 2010 | 2017 | 2010 | 2017 / 2018 | 2013 | irena |
| Take-up (000's m²) | 290 | 440 | 310 | 310 | | 280 | |
| | | | | | | | |
| Existing space (million m ²) | 7.7 | 7.8 | 7.8 | 7.8 | | 7.9 | - |
| Completions (000's m²) | 49 | 110 | 95 | 62 | V | 170 | |
| Vacancies (000's m²) | 440 | 360 | 280 | 200 | V | 170 | |
| Vacancy rate in % | 5.7 | 4.6 | 3.6 | 2.6 | V | 2.1 | |
| | | | | | | | |
| Maximum rent (€/m²) | 24.50 | 24.80 | 26.50 | 25.00 | | 27.00 | |
| Prime rent) in €/m² (according to gif | 21.25 | 21.50 | 21.50 | 23.00 | | 23.50 | - |
| Average rent (weighted accord- ing to unit size) in €/m ² | 12.40 | 14.10 | 13.70 | 15.00 | | 15.30 | - |
| Average rent (<mark>mean value)</mark> ² in €/m² | 11.90 | 12.20 | 13.00 | 13.00 | | 13.30 | - |
| | | | | | | | |
| Employees contributing to social insurance (000's)* | 522 | 538 | 553 | 569 | | 575 | - |
| Unemployment rate in %* | 9.3 | 8.5 | 8.5 | 7.7 | V | 7.7 | |

* as of 30 June;

Greif & Contzen Research, Cologne, March 2019

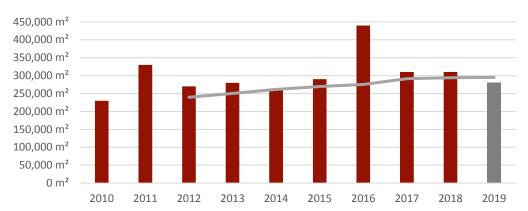


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Take-up of space characterised by development projects

A total of around 310,000 square metres of space was taken up in 2018. On top of this, various leases were renewed, including contracts for large office units, such as those used by Deutsche Bank AG or Ford Bank GmbH.

The three biggest rental transactions of the past year were accounted for by letting contracts for office units of between 10,000 and 13,000 square metres. New construction projects and revitalisation measures were extremely relevant to market development, owing to the significantly reduced vacancy rate. Lettings in such projects totalled around 72,000 square metres, and they thus made up about one quarter of the space taken up. Six out of eight letting contracts signed for at least 5,000 square metres of offices space in 2018, were accounted for by new construction or revitalisation measures. Most of these lettings took place as early as one or two years prior to the scheduled completion date of the respective office units.



Take-up of office space development, 10-year-average, and forecast 2010 to 2019

Greif & Contzen Research, March 2019

Selection of significant lettings

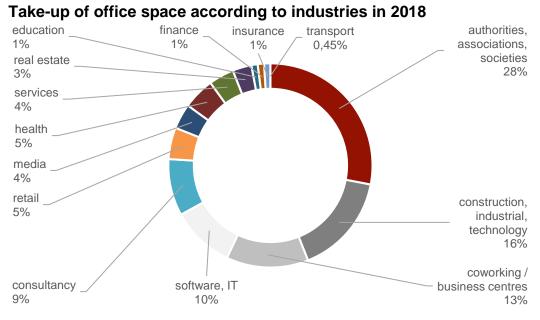
| Tenant (location) | office space (m ²) |
|---|--------------------------------|
| Design Offices GmbH (Mülheim) | approx. 13,000 |
| Finance Office of North Rhine-Westphalia (Bankenviertel) | approx. 10,600 |
| Siemens AG (Mülheim) | approx. 10,100 |
| Department for Facility Management, City of Cologne (Innenstadt Nord) | approx. 8,500 |
| DSD Duales System Holding GmbH (Gremberghoven) | approx. 6,000 |
| parcIT GmbH (Innenstadt Nord) | approx. 5,900 |
| Design Offices GmbH (Innenstadt Nord) | approx. 5,600 |
| Department for Facility Management, City of Cologne (Kalk) | approx. 5,000 |
| Greif & Contzen Research, March 2019 | |



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Coworking providers are the third biggest group of tenants

Authorities, associations, and societies were once more the biggest group of demanders last year, accounting for more than one quarter of space taken up. Companies from the areas of construction, industry, and technology claimed the second rank with around 16 percent. Coworking providers and business centres were able to increase their share of take-up to 13 percent. Apart from a contract for 13,000 square metres in Mülheim, take-up from this industry was focused in Cologne's city centre.



Greif & Contzen Research, Cologne, March 2019

Significant increase of rents

The average rent weighted according to unit size increased significantly in 2018, rising by around EUR 1.30 to currently EUR 15.00 per square metre. The prime rent increased by around EUR 1.50 to now EUR 23.00 per square metre. Several letting contracts for office buildings with high-quality fittings were concluded, especially in various attractive city centre locations. This included units located in new as well as in existing buildings. A number of public institutions are among the tenants in this premium segment.

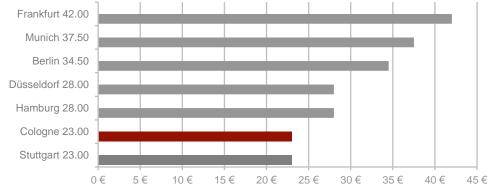


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Erftstrasse with Kaiser Hof and the historic training building of Allianz © Greif & Contzen 2019

Prime rents in Germany's top office locations 2018 (€/m²)



Source: gif e.V.; Greif & Contzen Research; various market reports, March 2019

The prime rent had hardly increased in recent years, owing to the small share of rental contacts concluded for high prices, compared to the total take-up of space. Over the course of 2018, however, the prime rent increased by around seven percent, from EUR 21.50 to EUR 23.00. Between 2008 and 2017, this key figure had stagnated at around EUR 21.00 to EUR 21.50 per square metre. Due to the considerably stronger increase in the past year, Cologne was able to draw level with Stuttgart when comparing the top 7 cities. Growth rates are higher only in Berlin and Hamburg, at around eleven and eight percent respectively.



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New buildings with further potential for price increases

New maximum rents were achieved across all location categories in 2018. The level of rents achieved up to the end of 2017 is compared to the current results from 2018, in the table below. While the maximum value increased to EUR 25.00 per square metre in top quality locations for new buildings only, new maximum values were also achieved in properties in mint condition and modern buildings (EUR 19.50 and EUR 22.00 per square metre) in high quality locations. In the category of average quality office locations, considerable rent increases were realised for new buildings. A top rent or EUR 17.00 per square metre was agreed upon, in a business park location on the right bank of the Rhine. The maximum rent achieved in this segment thus increased by about 11 percent.

Realised maximum rents according to property types and quality of location

| | New buildings | | Revitalised buildings | | Mint-condition and modern buildings | |
|---------------------------------------|---------------|---------|-----------------------|---------|--|---------|
| | Q4 `17 | Q4 `18 | Q4 `17 | Q4 `18 | Q4 `17 | Q4 `18 |
| Top quality location ¹ | € 21.25 | € 25.00 | € 25.00 | € 25.00 | € 26.50 | € 26.50 |
| High quality location ² | € 21.00 | € 22.00 | € 20.50 | € 20.50 | € 17.50 | € 19.50 |
| Average quality location ³ | € 15.25 | € 17.00 | € 16.60 | € 17.00 | € 15.50 | € 15.50 |

Indicated as monthly base rents per square metre

¹ city centre locations with very good traffic links, high visibility, and an established business environment, such as Bankenviertel, Mediapark, Rheinauhafen, Rheinufer

² city centre locations with certain drawbacks regarding factors such as visibility or neighbours

³ locations outside of the city centre including business parks such as Airport Businesspark , Braunsfeld, Ehrenfeld, Kalk, Ossendorf

Greif & Contzen Research, March 2019

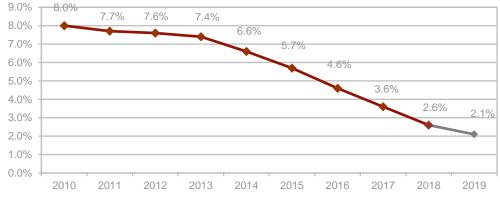
The very dynamic development of maximum rents in a number of cases shows that – especially for new buildings – the price potential is still significantly higher than the current prime rent level. The structure illustrated here, regarding the maximum rents realised to date, also suggests that there is certain further potential for growth.



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Significant decrease of vacancies in city centre sub-markets

Over the course of 2018, vacancies have decreased by around 80,000 square metres. Only around 200,000 square metres of office space of varying quality are thus available in existing properties at short notice, to companies looking for office space within the city limits. The vacancy rate dropped from about 3.6 to around 2.6 percent. Significant decreases in the city centre could be observed in the sub-markets Rheinauhafen, Kölner Ringe, and Rheinufer Süd, where vacancies decreased by between 10,000 and 13,000 square metres each. Vacancies totalled between as little as 1,000 and 8,000 square metres in these locations, at the end of the year. In Ehrenfeld and Gremberghoven, vacancies decreased to around 9,000 and 8,000 square metres respectively. Around 23,000 square metres are still vacant in Braunsfeld.



Vacancy rate development and forecast 2010 to 2019

Greif & Contzen Research, Cologne, March 2019

Vacancies are expected to decrease further in 2019, as many users are unable or unwilling to opt for space available in development projects, due to their requirements regarding the time of letting, unit sizes, or rent prices. Only around 14 percent of office space scheduled for completion in 2019, has not yet been taken up through pre-letting or by owner-occupiers.



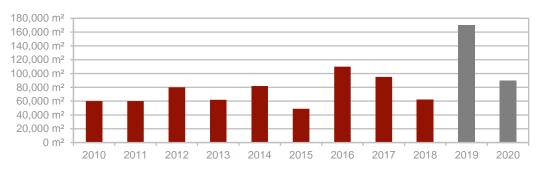
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FOCUS TOPIC

Completions and future letting hotspots

Around 62,000 square metres of office space were completed in 2018: 22 percent less than the average figure of the past five years, which stands at around 80,000 square metres. It is expected that more space will be realised this year and next, part of which is accounted for by construction projects on a much greater scale. The major project MesseCity alone, which is located in the part of the city centre on the right bank of the Rhine, comprises some 68,000 square metres of office space expected to be completed in late 2019. Most of this space has been let to Zurich Versicherung.

Completions development and forecast 2010 to 2020



Greif & Contzen Research, Cologne, March 2019

Significant construction activities 2019 (properties under construction)

| Property / sub-market | Rental space (m ²) | Completion |
|---|--------------------------------|--------------|
| MesseCity (Deutz) | around 120,000 | 2019 / 2021* |
| I/D Cologne (1st part, Mülheim) | around 32,000 | 2020 / 2021* |
| ONE Cologne (Innere Kanalstrasse) | around 15,000 | 2019 |
| WALLARKADEN (Kölner Ringe, Rudolfplatz) | around 14,000 | 2020 |
| CLOUTH 104 (Köln Nord) | around 13,000 | 2019 |
| Kaiser Hof (Innenstadt Nord) | around 12,300 | 2019 |
| Haus Friesenplatz (Kölner Ringe) | around 9,000 | 2019 / 2020* |
| Deutsche Bahn AG training centre (Köln Ost) | around 7,800 | 2019 |
| b4 Campus (Kalk) | around 5,000 | 2019 |
| * by construction phases | | |

Greif & Contzen Research, Cologne, March 2019

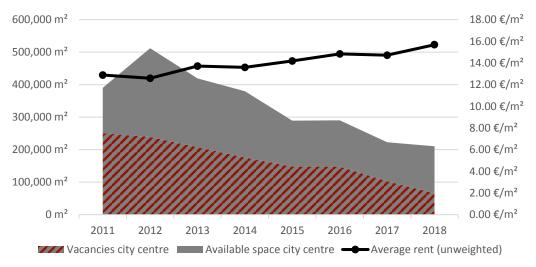


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As things currently stand, a total of more than 260,000 square metres of office space in new and revitalised buildings are scheduled for completion in 2019 and 2020. A significantly higher result may even be achieved, if further anchor tenants can be found over the next few months, for development projects that are currently at advanced stages of the approval process.

Total of space available in the city centre has decreased further

Compared to previous years, the supply of space in the city centre has decreased considerably. Alongside this downward trend, a clear rising trend of the unweighted average rent could be observed in the city centre. It currently stands at EUR 15.70 per square metre, and is thus around EUR 2.70 higher than the figure for the entire city area, which has also increased.



Available office space in the city centre, vacancies, and average rent (each as of the end of the year)

Greif & Contzen Research, Cologne, March 2019

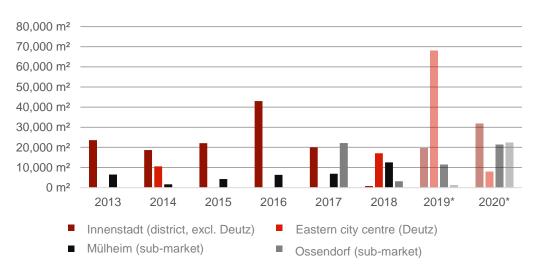
The decrease of available space was caused mostly by the decrease of vacancies. The availability of construction and development projects, and existing properties that will be vacated, but are not vacant yet, ranged between 120,000 and 145,000 square metres between 2015 and 2018. A small increase could be registered in 2018. However, this also includes a share of projects that will become available in 2021, or even later. This reserve is all the more important for companies, as vacant space in the city centre has decreased by 37 percent within one year, and is now down to only about 65,000 square metres. The share of the total supply that is accounted for by vacancies has decreased to about one third since 2011. Companies looking for larger units in the city centre in particular, are extremely likely to be forced to opt for new or revitalised buildings.



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Spatial differentiation of the completion volume

The spatial distribution of the existing and foreseeable volume of completions shows that the city centre continues to play an important role for users, wishing to move into new premises over the next year or two. In addition to MesseCity, several other development projects are being realised, for example in the Kölner Ringe area.



Completions in selected locations development and forecast 2013 to 2020

* forecasts for 2019 and 2020; Greif & Contzen Research, Cologne, March 2019

The sub-markets Ossendorf and Mülheim have become increasingly relevant, due to their large space reserves and many development projects. These locations are established office locations with fundamental infrastructural facilities, and they have already attracted many companies, for example from the media, IT and creative industries. Various former industrial properties along Schanzenstrasse have been transformed into new state-of-the-art office space in recent years, in the course of comprehensive reconstruction measures. The commercial development I/D Cologne, with a total of more than 160,000 square metres, is currently being realised in this area. The sub-market Ossendorf has developed into a highly sought-after location in recent years, especially thanks to a new tram connection, significantly improved local supply facilities, and a wide range of prestigious tenants.

Due to their very positive development, there are currently further plans for new construction projects to be realised in Ossendorf and Mülheim. Some of these could be available for interested users as soon as in late 2019, and over the years to follow. Considering these space options and the existing location characteristics, it is to be



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expected that many new tenants, especially those requiring large rental units, will settle in these areas.



I/D Cologne – Güterhaus – Joint Venture of Art-Invest and OSMAB, 2019

In the medium-term, a wide range of additional letting options for office tenants is going to be established in the south of the district of Mülheim, and through to Mülheim Harbour. Planning provides for new buildings to be created on the plots along Deutz-Mülheimer-Strasse, and historic building stock is available for realising revitalisation measures. A traffic concept is currently being drawn up to improve local public transportation.

In the future, the sub-markets of Braunsfeld and Ehrenfeld are also going to provide a wide range of space options, beyond those that exist at present. Structural development potential is available in the form of brownfield land, as well as older buildings that no longer meet present-day requirements.

With Deutz Harbour and Parkstadt Süd, planning has already begun for two new urban development areas in very favourable locations. These sites are also well or even excellently suited for office users. Planning provides for the creation of around 10,000 workplaces and about 6,500 apartments.



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Overview of submarkets

| Location | Available space ¹ (m²) | Vacancies (m²) | Ø annual take-up² (m²) | Benchmark rent³ (€/m²) | | | | |
|--|--------------------------------------|-------------------|---------------------------|---------------------------|--|--|--|--|
| Innenstadt (City Ce | entre) | | | | | | | |
| Bankenviertel | 17,000 | 6,000 | 11,000 | 13 - 20 | | | | |
| MediaPark | 1,000 | 1,000 | 7,000 | 14 - 20 | | | | |
| Rheinauhafen | 5,000 | 5,000 | 9,000 | 16 - 20 | | | | |
| Kölner Ringe | 40,000 | 8,000 | 21,000 | 11 - 19 | | | | |
| Deutz | 71,000 | 7,000 | 34,000 | 10 - 19 | | | | |
| Innenstadt Nord | 46,000 | 16,000 | 39,000 | 11 - 19 | | | | |
| Innenstadt Süd | 29,000 | 21,000 | 9,000 | 9 - 17 | | | | |
| Rheinufer Nord | 500 | 500 | 4,000 | 15 - 20 | | | | |
| Rheinufer Süd | 1,000 | 1,000 | 7,000 | 12 - 17 | | | | |
| Subtotal | 210,500 | 65,500 | 141,000 | | | | | |
| Districts on the left bank of the Rhine | | | | | | | | |
| Innere Kanalstrasse | 500 | 500 | 6,000 | 12 - 16 | | | | |
| Ehrenfeld | 36,000 | 9,000 | 19,000 | 9 - 13 | | | | |
| Braunsfeld | 49,000 | 23,000 | 12,000 | 10 - 13 | | | | |
| Ossendorf | 91,000 | 18,500 | 19,000 | 8 - 11 | | | | |
| Köln Nord | 26,000 | 11,000 | 15,000 | 7 - 12 | | | | |
| Köln West | 24,000 | 22,000 | 15,000 | 8 - 14 | | | | |
| Köln Süd | 37,000 | 25,000 | 19,000 | 8 - 13 | | | | |
| Subtotal | 263,500 | 109,000 | 105,000 | | | | | |
| Districts on the right bank of the Rhine | | | | | | | | |
| Gremberghoven | 33,000 | 8,000 | 15,000 | 7 - 11 | | | | |
| Mülheim | 76,000 | 1,000 | 23,000 | 9 - 14 | | | | |
| Kalk | 500 | 500 | 15,000 | 8 - 15 | | | | |
| Köln Ost | 108,000 | 16,000 | 18,000 | 8 - 12 | | | | |
| Subtotal | 217,500 | 25,500 | 71,000 | | | | | |
| Total | 691,500 | 200,000 | 317,000 | | | | | |

1 The supply of available space consists of vacancies, space under construction, and a certain amount of space that is still in planning stages. Specified as average value of the past five years The listed figures are base rent prices. Considerably higher or lower rents are occasionally agreed upon in

2

3 individual cases.

Greif & Contzen Research, Cologne, March 2019



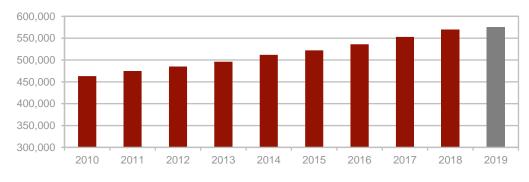
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Haus Friesenplatz © Greif & Contzen 2019

Employment market may grow further in 2019

The number of employees in Cologne increased by 15,000 individuals between July 2017 and June 2018. A similar increase could be observed a year earlier. The unemployment rate dropped from 8.5 to 7.7 percent. Growth in 2019 is likely to be less pronounced than in the year before, despite the fact that economic research institutes continue to expect that the German labour market is going to expand. Restructuring measures have been announced by individual large Cologne-based companies, such as Galeria Kaufhof GmbH. These companies are expected to cut jobs. However, there is also an influx of employers, such as the gradual relocation of the Zurich Versicherung headquarters from Bonn to Cologne with 1,500 staff members, scheduled for late 2019.



Employees contributing to social insurance in Cologne development and estimate 2010 to 2019

Source: Landesdatenbank NRW, as of 30 June respectively; 2019 Greif & Contzen Research



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New GAG headquarters in the Deutzer Feld area © Greif & Contzen 2019

Outlook: tenants intensify focus on development projects

At the beginning of 2018, economic research institutes had forecast a 2.6 percent growth of the gross domestic product. At 1.4 percent, the actual increase was considerably lower than this. The economy has weakened, and the Ifo business climate index has decreased a number of times over the past few months, but it increased once again in March 2019. International trade disputes and the announced Brexit are considered to pose significant economic risks. At this point, economists expect that in 2019 the economy will grow by between 0.6 and 1.0 percent. The federal employment agency continues to assume that employment levels will remain high. Despite decreased indicator values, the Chamber of Industry and Commerce Cologne has found in its latest survey that the overall mood is still positive.

When it comes to location decisions made by companies looking for space in Cologne's office letting market, no reluctance caused by the economic situation can be observed to date. However, the take-up of space is likely to be limited by the severe shortage of vacant space and increased rents. A total take-up of around 280,000 square metres could be achieved by the end of 2019. Space available in existing buildings in the city centre is mostly accounted for by smaller units. Potential tenants looking for larger units in the city centre, will have to focus on development and revitalisation projects. Availability of larger units beyond the inner city is particularly high in Ossendorf, Mülheim, Braunsfeld, and Ehrenfeld. Under the given circumstances, vacancies are likely to decrease further, and the upwards trend of rents is expected to continue, albeit at a slightly slower pace.



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If you have any questions, please contact:



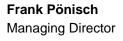


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