

Flexibilization of the Housing Market

PropTech Deep Dive # 1

December 2018

How startups are using the
global trends of growing
mobility and co-working to
break up the traditional
rental process

Main Findings

- As a result of increased mobility and an increased emphasis on comfort, the requirements profile of modern users has changed, substantially increasing the demand for short-term rental models.
- The user experience of the classic rental process is insufficient, which has prompted a large number of PropTech startups to profit from the lack of flexibility in the real estate sector.
- In a decentralized approach, specialized providers have emerged that focus on both the brokerage and operation of short and medium-term serviced apartments.
- These PropTech startups make it easier than ever before for property owners to extend their value chain to increase rental margins and become potent competitors in the hotel market.
- In the field of co-working, WeWork demonstrates the importance of a uniform brand and a coherent user experience, which serves as a model for co-living providers.
- Compared to co-working, the co-living segment has a substantial investment gap that opens up potentials for market participants to become profitable market leaders through international presence and brand building.
- Proactive innovation management and investments in startups open up opportunities for real estate companies to generate attractive financial returns as well as positive impulses for their own core business.

PropTech1 Deep Dives

PropTech1 Ventures, Germany's first venture capital fund to focus on European PropTech startups, employs a team of analysts who research and examine in detail the most important trends, key market developments and most promising real estate startups in the DACH, UK, Nordics, and international focus regions.

As an essence of our research we publish our Deep Dive Whitepapers at irregular intervals, in which we discuss different sub-segments of the PropTech market and thus shine a light on new and interesting trends that often question the traditional processes and power distributions within the real estate industry as well as opportunities and risks for traditional market participants.

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Amanda, 27, sits on a leather bar stool at a sturdy oak table in front of her an opened MacBook. Naked concrete walls and a labyrinth of uncovered pipes on the ceiling give the large room an industrial character, which is nevertheless wrapped in a pleasant ambience by the warm light of dozens of hanging lamps. Just like the other attendees who occasionally sit at the tables Amanda focuses on her laptop as Ed, Head of Community Experience, disturbs her briefly to draw her attention to the evening's live music event on the roof terrace. With her laptop under her arm, Amanda makes her way to her 10-square-metre-sized private room, past the Japanese tea room and the English Pub, and folds up her bed to take out her laundry, which she wants to wash two floors downstairs in the laundromat for the evening event. How she's going to spend the rest of the day, she doesn't know yet. At least she doesn't have to clean, because this is taken care of by the cleaning staff. Before her dinner at the French Bistro, she could make a detour to the gym, the cinema lounge, the games room, the sports bar or the library - no matter, it's all in the same co-living house and included in her £1,100 rent. Amanda lives in the Old Oak house of the co-living provider The Collective that was recently financed with \$420 million.

1 Introduction



The Collective is only the - certainly not fully representative - spearhead of the trend in the short and mid-term rental segment. Our first PropTech Deep Dive examines developments in the area of short-term vacation rental, serviced apartments and the project development of co-living complexes. First, the market dynamics with regard to the changing requirement profile and a corre-

sponding change on the supply side are examined. This is followed by a market overview, which presents the most important companies in the segments, a breakdown of their financing volume and deals an analysis of the regulatory aspects. Last but not least, options are presented on how real estate companies can benefit from this trend.

2 Market Dynamics

Although guesthouses, furnished apartments or boarding houses have been offering corresponding services for a long time, short and medium-term rental has moved into the focus of the real estate industry in recent years. Several global trends are responsible for this: On the one hand, the requirements profile of tenants is changing, who attach greater importance to mobility in a globalised world as well as to more comfort and speed in the rental process. Furthermore, digitization - analogous to similar developments in other industries such as finance, retail and publishing - makes new business models and a far broader range of offers possible. Last but not least, new market participants such as traditional real estate providers and owners are looking for opportunities to expand their own depth of added value beyond classic long-term leasing.

2.1. CHANGE IN REQUIREMENT PROFILE AND RISING DEMAND

Expectations of the rental process are currently subject to fundamental changes that the real estate industry has not experienced for decades. The demands of millennials - the generation born between the early 80s to the early 2000s following the "Generation X" - are only the harbingers of the future status quo. Millennials represent the demographic group that already have different expectations of mobility, travel, flexible working and housing - and this stratum of the population is particularly relevant given that millennials will account for 75% of the world's labour force in 2025.¹ The desire for increased mobility when travelling is represented by all age groups and can already be measured by hard figures in numerous industries: Airlines welcomed 4.1 billion passengers in 2017, up from only 2.5 billion 10 years earlier.² This figure is forecast to rise to 7.8 billion in 2036.³ Technology has also strongly influenced and redefined the way we work. The possibility of working interconnected from all over the world opens up completely new ways of life. 80% of the millennials worldwide would like to work in a country other than their home country in the course of their careers.⁴ This statement is in line with the requirements of employers, as 72% of managers see an increasing demand for internationally mobile employees in the coming years.⁵ Flexible working is generally one of the global megatrends. The Japanese telecom group SoftBank recently invested \$3 billion in the co-working provider WeWork, after pumping \$4.4 billion into the sector leader in 2017.⁶

Those who work flexibly often want to live flexibly. The classic rental process is not suitable for these needs. Whether digital nomad, who travels lifestyle-driven as a freelancer from metropolis to metropolis, or mobile manager - the modern professional traveller does not want or can not go to an overcrowded mass flat viewing a month in advance, submit various intimate documents, sign a multi-year rental agreement, provide a deposit, the repayment of which he will have to ask for for months after moving out, completely furnish the apartment and quarrel with the property management about every little problem. However, landlords cannot do without proof of creditworthiness and deposit payments, as they are left with high costs if tenants do demonstrate poor payment morale. In a nutshell: The "user experience" when renting an apartment traditionally is one of the worst consumer experiences of all. It is inefficient and completely unsuitable for the modern requirement profile.

¹ Deloitte, "Big demands and high expectations - The Deloitte Millennial Survey"

² International Civil Aviation Organization, "Facts & Figures"

³ International Air Transport Association, 2036 Forecast Reveals Air Passengers Will Nearly Double to 7.8 Billion

⁴ pwc, "Managing tomorrow's people: Millennials at work - perspectives from a new generation"

⁵ Harvard Business Review, "Strategic Global Mobility: Unlocking the Value of Cross-Border Assignments"

⁶ TechCrunch, "WeWork picks up ANOTHER \$3B from SoftBank"

**LEADING REAL ESTATE EXPERTS' DEGREE OF APPROVAL OF THE STATEMENT
"OCCUPIERS ARE WILLING TO PAY FOR SHORTER LEASES AND INCREASED FLEXIBILITY"**

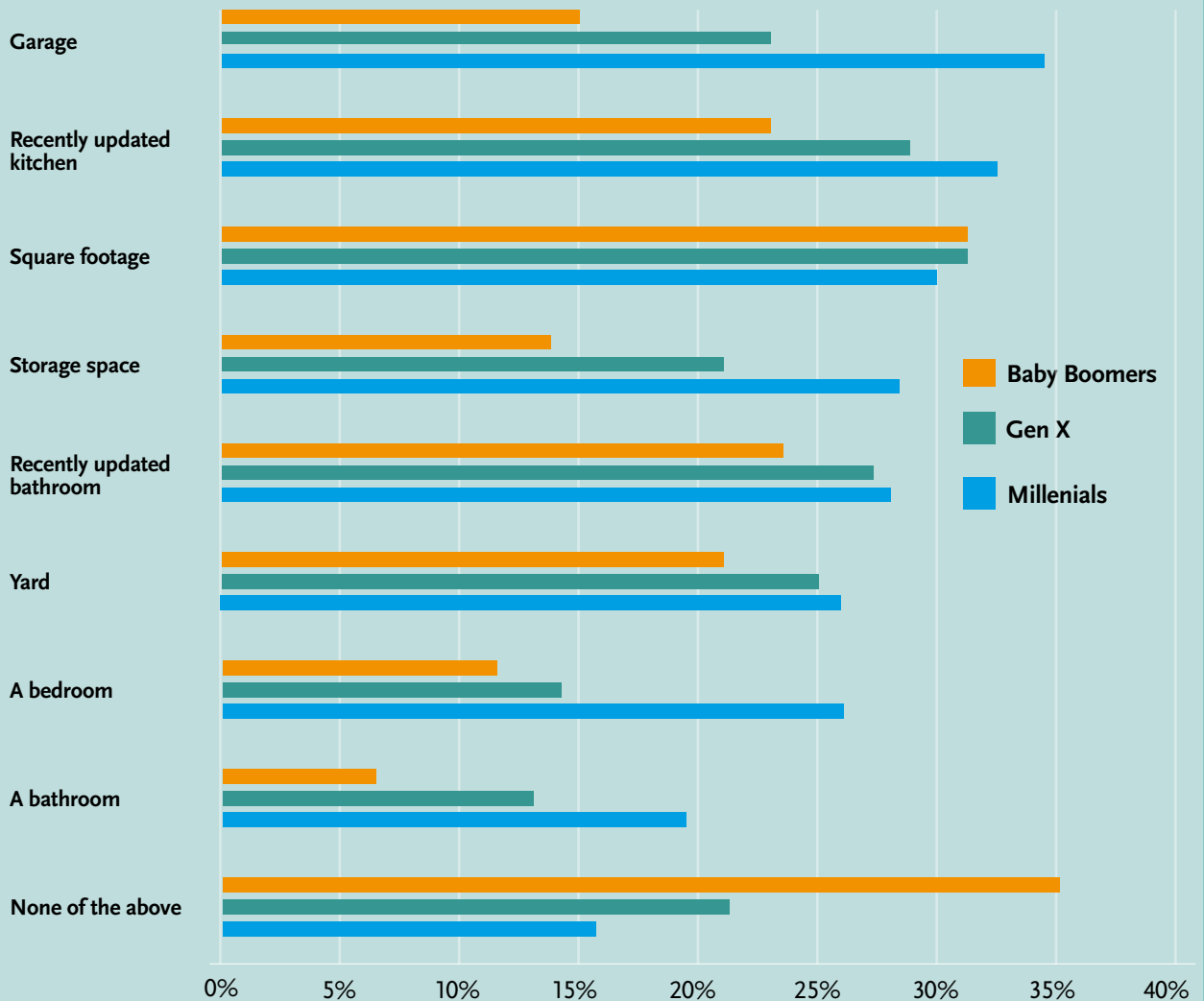


Source: pwc, Emerging Trends in Real Estate Europe 2019



Figure 1: Assessment by leading real estate experts of changes in requirements and corresponding demand for housing

„IF YOU WERE LOOKING FOR A NEW HOME, WHICH OF THE FOLLOWING HOME FEATURES WOULD YOU BE WILLING TO GIVE UP IF YOU COULD LIVE IN YOUR IDEAL NEIGHBORHOOD?“



Source: Trulia, online survey of 2,026 US adults, April 2018



Figure 2: Change in requirements and corresponding demand for housing



»» We're selling a product here. It's frustrating when you want something, and it's not out there. The sign-up process is all online, and we use digital signatures. We have our own tech platform that makes on-boarding simple. It's housing as a service. ««

Adam Goff, founder of the co-living provider Capital Living⁷

In addition to pure practicality, the user experience also plays a decisive role for today's tenants, and this does not end with an efficient rental process: As a stranger in a large city, the importance of social networking should not be underestimated. Community events and roommates in co-living apartments or shared housing complexes offer optimal satisfaction of the basic need for social connection.

Furthermore, it is no longer the size of an apartment or its equipment that is of decisive importance for younger tenants, but a central location and good connections to the workplace. Millennials also expect their problems to be solved quickly and unbureaucratically. So they no longer accept the fact that they have to adhere to the office hours of their property manager, who has perfected the art of rejecting as many enquiries as possible, but rather turn to a community manager, who is in modern concepts intentionally available 24/7 and on channels like Whatsapp or Slack. Irrespective of the expectations of tenants

as end customers, i.e. the requirements that "B2C customers" place on residential properties, the requirements in the "B2B segment" are rapidly changing. For many entrepreneurs in the global "war for talent", it is essential to expand their recruiting to an international level. In order to survive in competition with other companies, it is a standard procedure in many industries to take care of the relocation of new employees and to make their acclimatisation phase as pleasant as possible. Many startups have also identified innovation potential in this area and offer companies and their HR departments all-round care packages consisting of, for example, accommodating employees in serviced apartments, supporting them in dealing with the authorities (e.g. for work permits) and providing them with a prepaid mobile phones.

»» Renting is often not a pleasant experience, and living in cities can be lonely and stressful. Moving into your new apartment, sorting out furniture and utilities, and then trying to connect with busy people around you all whilst working long hours in a transient economy are frustrations many of us have experienced. We are confronting three problems for renters in the city: their desire for community, convenience and affordability. ««

Philip Laney, CEO of the co-living provider Lyvly⁸

⁷ PlaceTech.net, "Co-living: What does it mean for the UK rental market?"

⁸ TechCrunch, "Lyvly scores \$4.6M for its members-based shared living and rental platform"

2.2. DECENTRALISATION/FRAGMENTATION AND CUSTOMER CENTRICITY LEADS TO RISING SUPPLY

The emergence of Airbnb as a platform on which private individuals can offer guests a bed, a room or their entire apartment is tantamount to the democratization of the hotel market. Anyone can now be a hotelier, who provides serviced apartments ("serviced" because at least the cleaning is always done by the host) and can be paid accordingly. Even the tenant can become the landlord at the same time. Airbnb is thus based on the multi-billion dollar idea of providing a platform to bring together the existing supply of billions of square meters of unused living space worldwide with the increasing demand for short-term rental opportunities. Yet the idea of cultural and social exchange between "host" and "guest", which is promoted in Airbnb's advertising, is not at the core of the

idea, but rather economical interests. Two thirds of all Airbnb apartments are rented out in their entirety, which means that living together - even for just one weekend - is ruled out from the outset. The company, which was founded in 2008, has little in common with Airbnb's original idea of an air mattress in one's own bedroom ("Air Bed and Breakfast"). Only two percent of the users share a room with their guests.⁹ As a result of the strong professionalization of its landlords, Airbnb is today the most valuable "hotel company" worldwide with an estimated valuation of \$31 billion and generates sales of more than \$1 billion per quarter.¹⁰ The trend towards decentralisation, as can also be seen in many areas of the economy such as the sharing economy, is retrospectively a logical consequence of the historical development of the hotel industry:

⁹ skift.com, "Airbnb in NYC: The Real Numbers Behind the Sharing Story"
¹⁰ CNBC.com, "Airbnb booked more than \$1 billion in third quarter revenue"

HISTORICAL DEVELOPMENT OF THE HOTEL INDUSTRY AND SHORT-TERM RENTAL

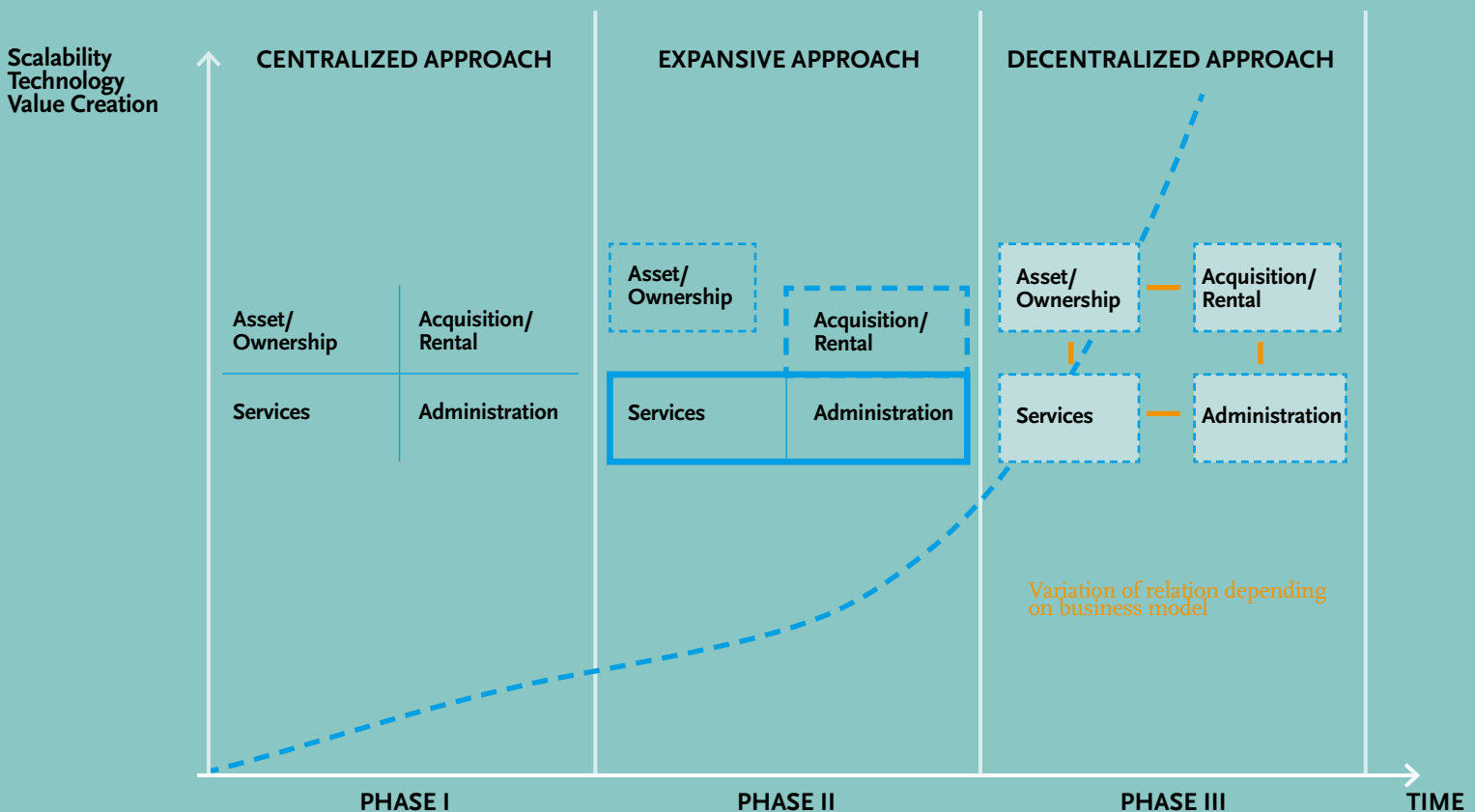


Figure 3: The development of the decentralization of the market

2.2.1. PHASE I

Until the first half of the 20th century, the classic, completely centralised hotel model still existed almost exclusively: Hotels, guesthouses or inns were still run by a single company - the land and the rented units were thus owned by a party that also provided the rental, services such as cleaning or catering as well as the administration of the property.

2.2.2. PHASE II

From the middle of the last century, a far more expansive, scalable business model developed. The increasing affordability of civil air transportation, the rising wage level in the industrial nations, the reduction of working hours, and thus the increase in leisure time provided the ideal breeding ground for the need for travel and thus for the expansion of hotel chains, the growth of which was often made possible by the separation of ownership and operation. Hilton, Marriot & Co., who for the first time offered their guests amenities such as television and telephones, rented additional properties instead of buying them and merely served as the operator of the hotels. Ownership and operation were thus uncoupled.

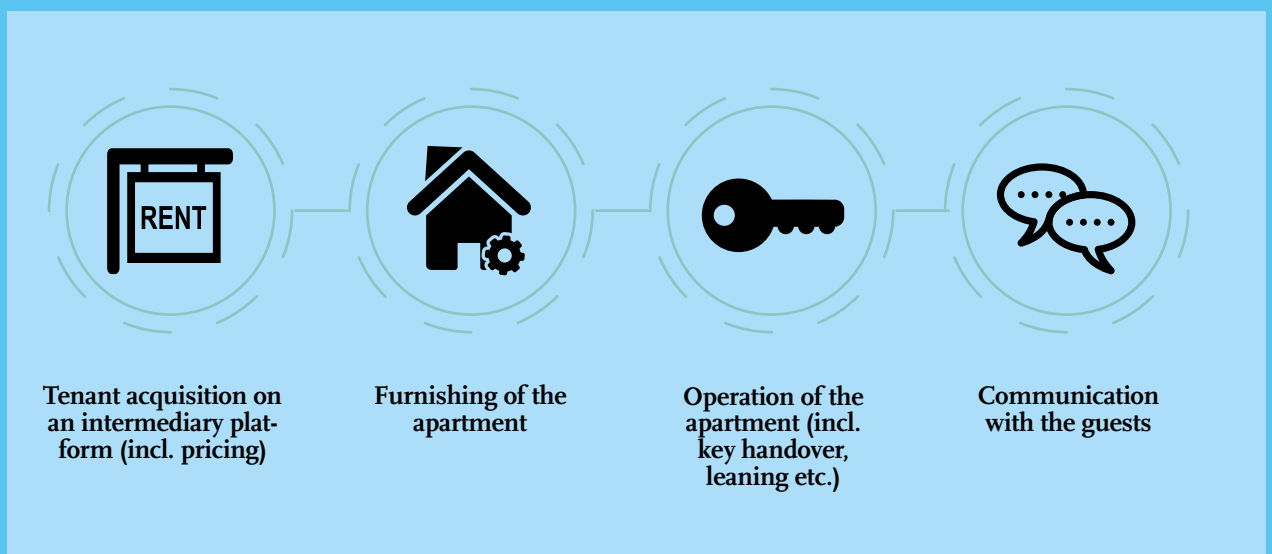
2.2.3. PHASE III

The latest trend, which has emerged in recent years, is further decentralisation at both vertical and horizontal levels. Today, hotel chains often outsource their own operations to franchisees and are only responsible for the brand, hotel concept, and global marketing.

The actual operation in the short and medium-term letting of individual apartments is also split into providers which specialise in certain services: the rental process or the acquisition of tenants, the provision of services in day-to-day operations, and the general management activities of the properties. On the other hand, the actual rental space is literally decentralized: It is no longer located exclusively in a single (boarding) house or hotel - which is not only the case in the short-term segment like Airbnb, but also in the mid-term segment - but can be rented as individual apartments and still be found by tenants on a central platform.

Various providers have entered the market, which, by providing know-how and acting as an interface to the service providers, offer property owners the opportunity to increase their returns compared to classic long-term residential leasing. Phase III sees the birth of the "enabler" in the short & mid-term rental segment, which makes the previously time-consuming step from long-term rental to the higher-margin short-term segment easier than ever before. In the following capital we break down the corresponding providers and their services in detail.

3 MARKET OVERVIEW SHORT & MID-TERM RENTALS



Short-Term Rentals are classically defined as rentals of accommodations for vacation purposes or short business stays over a period of up to one month. Mid-term rental periods range, depending on the point of view, from more than one month to two years including a relocation of the main residence to the respective location. However, for our purposes, we consider only the most frequent application case, which ranges from three months to one year.

3.1. TRIPARTITION/FRAGMENTATION OF THE MARKET

In the course of the decentralization of the market, the value creation chain has diversified into three different segments, each of which supports property owners or tenants. We subdivide these into primary online marketplaces, secondary marketing and operations supporters and the tertiary supporters of the supporters.

3.1.1. PRIMARY ONLINE MARKETPLACES

At the primary level, we find the booking platforms that open up the market for renting out individual, decentralised apartments or rooms to a broad mass of customers. Well-known brokerage marketplaces such as Airbnb and HomeAway should be mentioned here first and foremost. In order to stand out from these market leaders, however, a large number of competitors have formed, which either offer a curated selection of apartments "certified" by the platform or go one step further and completely take over the guest management from owners of luxurious apartments, villas, chalets etc. and thus ensure a consistent customer experience in all vacation accommodations offered.

3.1.2 SECONDARY: MARKETING AND OPERATION SUPPORTERS

At the second level, we see a sharp increase in the number of (vacation) rental management providers who - depending on the business model - are responsible for listing, administration, pricing and services, such as cleaning or handing over keys. Thus, on the one hand, these providers enable private individuals who are very busy to rent out their apartments for shorter periods of time in the first place; on the other hand, the marketing and operation supporters or property managers can also take over an enormous part of the administration and facility management for institutional property owners.

3.1.3 TERTIARY: SUPPORTERS OF THE SUPPORTERS

Vertical decentralization culminates in the tertiary supporters of the supporters. They offer specialized services which either relieve the landlords or property owners themselves of administrative or service tasks or which in turn are used by the operating support staff to outsource their services. Compared to the classic rental process, the focus here is also on technology-driven products. For example, many startups are dedicated to calculating the optimum pricing in the competitive environment of the brokerage platforms or to equipping apartments with tablets, on which concierge apps are pre-installed in order to enable guests to enjoy a more pleasant stay.

To give just one example of the three-way division of the value chain: KeyNest is one such tertiary supporter of the supporters, offering key storage and delivery in over 300 UK retail stores. GuestReady is a secondary operational supporter that offers services such as cleaning, guest communication and even key handover for landlords who want to rent out apartments via the primary brokerage platforms Airbnb, HomeAway and Booking.com. GuestReady uses KeyNest in many cases to ensure a smooth key handover and to minimize its own effort.

DECENTRALIZATION OF SUPPLY FRAGMENTS THE MARKET INTO THREE - AT TIMES - OVERLAPPING SECTORS

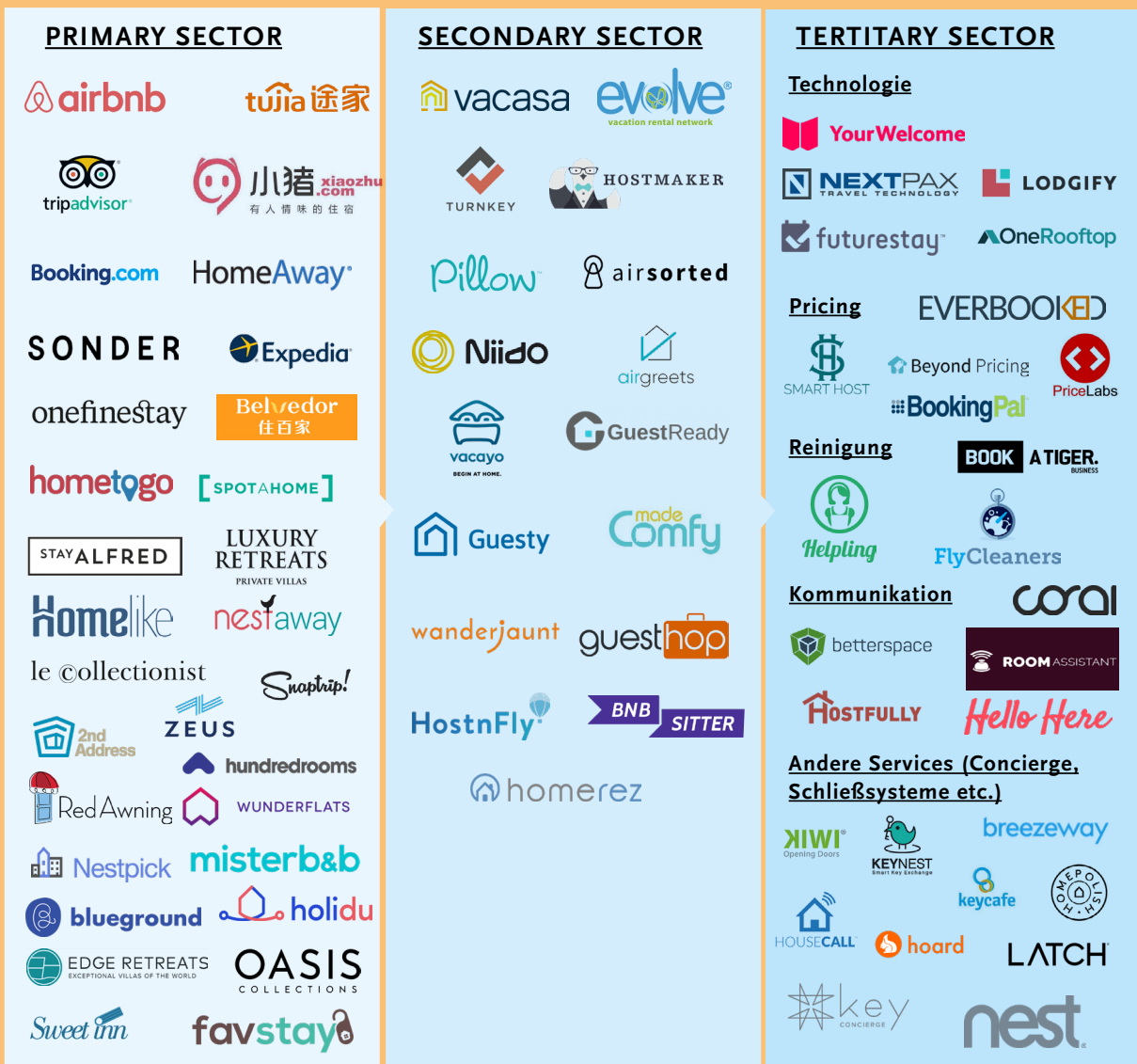


Figure 4: Overview of market sectors

The decentralization of the operational providers does not just have advantages for the landlords. In the case of short-term rental of a large real estate portfolio via brokerage platforms, no brand effects are to be achieved, since in this case, for example, Airbnb or HomeAway appears as a brand to the customer. Furthermore, it is more difficult to ensure a consistent level of quality with the fragmentation of external service providers. The advantages, however, are obvious: The supporters make it easier than ever before for landlords who have traditionally exclusively served the long-term segment to enter into the short-term segment, among other things because they make their know-how available and enable a faster implementation through their specialization. Furthermore, outsourcing to external providers prevents the expansion of the existing workforce, which could lead to risks - for example in the case of a

declining development of the market. Even though new business models are opening up in the maturing short-term and mid-term rental market, they are increasingly adapting to the traditional rental process: Intermediary platforms assume the role of brokers, marketing and operation supporters take the place of property management companies and traditional service providers are replaced by specialized and more technological tertiary supporters.

3.2 OVERVIEW OF THE FINANCING VOLUME OF THE LARGEST PROVIDERS

In order to give an impression of the market size, we list the providers of the primary online market places and the secondary marketing and operation supporters which have received the most venture capital over their life cycle.

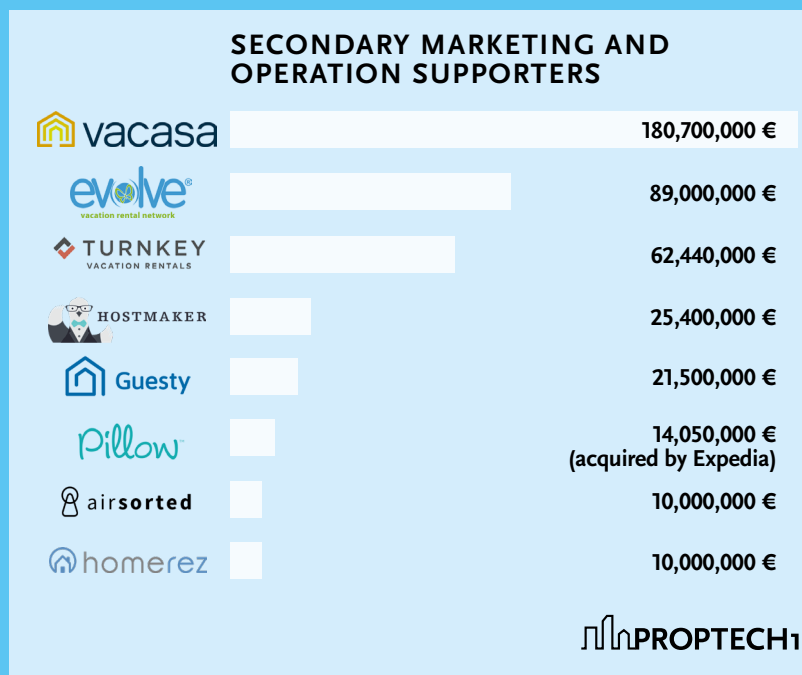
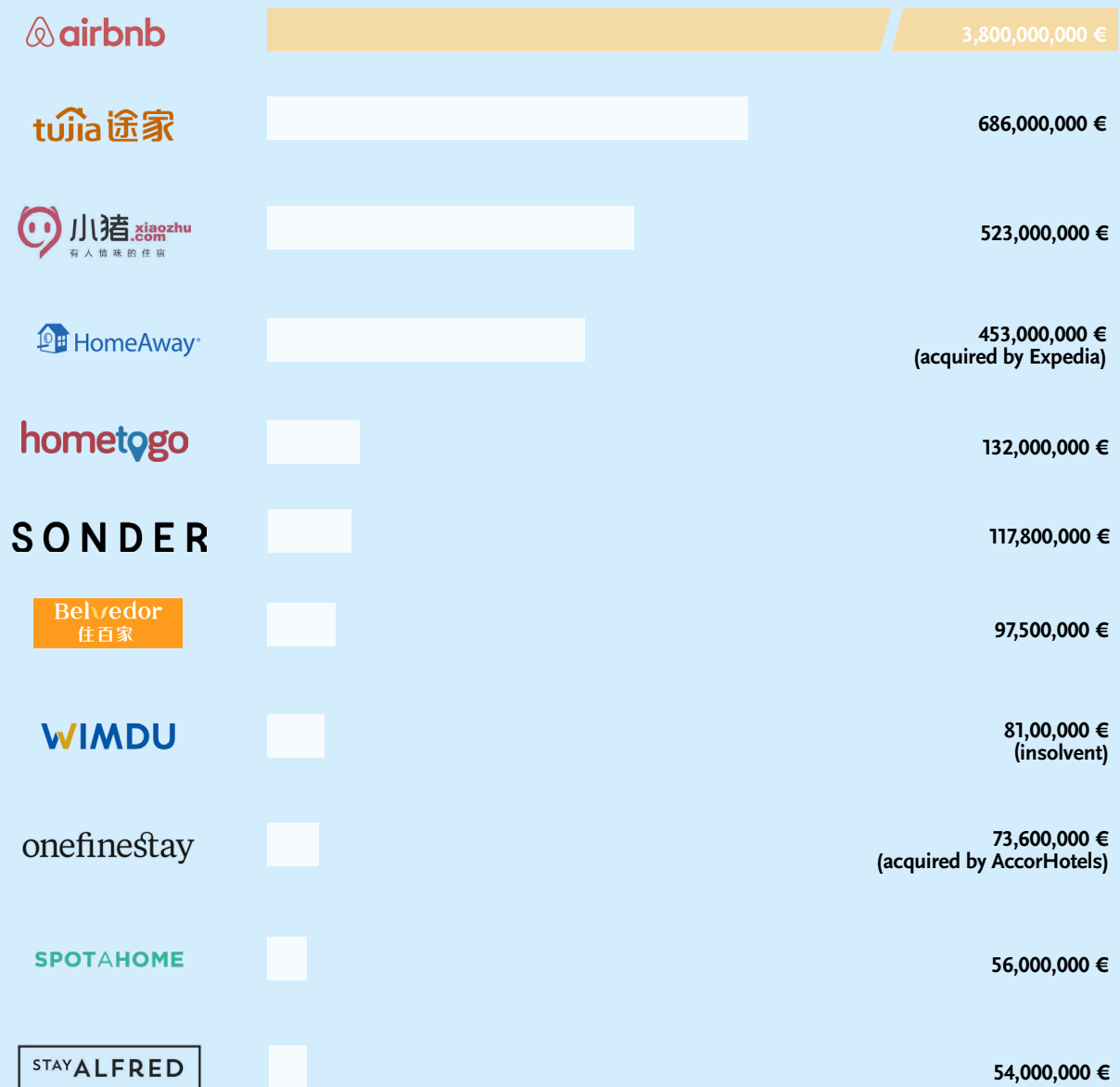


Figure 6: Companies from the secondary sector with the highest financing volume

PRIMARY ONLINE MARKETPLACES



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Figure 5: Companies from the primary sector with the highest financing volume

3.3 REGULATION

The increasing demand for new rental options and the establishment of PropTech startups in the real estate industry is leading to a transformation of the market. One example is Airbnb, the pioneer of the growing trend of the short-term vacation rental, which is attracting the attention of regulators as its size increases. The resulting problems are an increased unrest in residential buildings due to increased fluctuation as well as deprivation of long-term rental space, which leads to rising rents in tense housing markets. Current discussions about the regulatory framework in the rental market affect this segment in particular, so it is essential to have as precise a knowledge as possible of the legal framework conditions.

Cities and authorities see the problem in the misappropriation of real estate and try, particularly in Germany, to take action against it with prohibitions and restrictions. Depending on the city and federal state, there are individual regulations for the misappropriation of living space. The fines vary. The maximum rate, in Lower Saxony for example, is €50,000, but in Berlin and Munich it can be up to €500,000.¹¹

The decisive factor for the application of the Misuse of Housing Prohibition Act (or for other European regulations) lies in the rental period. Rental properties are usually divided into three different categories: short-term (under 3 months), mid-term (3-12 months) & long-term (over 6 months). In the following, particular attention will be paid to the short-term and mid-term rentals segments currently under discussion.

SHORT-TERM REGULATION (example: **airbnb**):

Short-term rental providers and online marketplaces like Airbnb are in particular within the focus of the regulators. It is difficult to make general statements about the regulatory framework in the short-term segment as they differ not only between different countries, but even regionally. On the following page, we provide an overview of the guidelines of the international Airbnb/short-term-rental-hotspots.

In simplified terms, it can be stated that cities with large booking volumes in the short-term rental segment have already introduced initial regulatory measures. The tendency towards stricter regulation of the sector is increasing, but much of it is seeking compromises rather than a complete ban.

WHAT IS THE MISUSE OF HOUSING PROHIBITION ACT?

The ban on misappropriation means that declared living space may only be used for residential purposes. Permission to use living space for purposes other than those for which it is intended can only be granted on application. There are several ways in which owners/tenants violate the regulation. One example is the misappropriation in both the co-living and short-term rental segments. Commercial providers rent out their apartments all year round to vacationists and pursue commercial interests. The regulations on misappropriation are determined at the municipal rather than the federal level and thus differ throughout Germany.

WHAT IS PROBLEMATIC ABOUT MISAPPROPRIATION?

The problem in the short-term rental segment is seen by the legislators primarily not in the private, but in the commercial providers. As more and more apartments are rented out exclusively as short-term rentals, thus reducing the supply of standard long-term housing for residents, a shortage of housing and rising rents is being created.

WHAT EFFECTS DOES THIS HAVE ON THE PROPTech SCENE?

The German regulation on misappropriation as well as equivalent regulations in European cities limit/endanger existing co-living / short-term rental providers and superordinate portals, but at the same time promote new business models. An example of this is the new operational support providers, which assist Airbnb landlords with regulatory issues.

MID-TERM REGULATION (example: **Homelike**)

Since the regulation focuses on limiting short-term rentals, providers of "temporary living" such as Homelike or Wunderflats, which are not affected due to a longer rental periods, indirectly profit. Similar to the short-term sector, the definition of mid-term rental and the associated minimum rental period varies from city to city and from country to country. Portals such as Homelike require a minimum rental period in Germany, which also requires registration of the residence in the respective city. As a result, unlike in the short-term rental segment, the target group consists of people who spend longer periods in the city for professional reasons. Hereby, mid-term rentals do not contribute to the actual problem of housing misappropriation.¹²

¹¹ Die Welt, „Illegalen Vermietern drohen Strafen von bis zu 500.000 Euro“

¹² Homelike, „Worum geht es bei dem Zweckentfremdungs-Verbot von Wohnraum?“

LOCATION	SHARE IN GLOBAL AIRBNB VOLUME (IN %)	PERMITTED SHORT-TERM RENTAL PERIOD (IN DAYS)	EXTRA INFORMATION
Berlin	0.5%	90 (principal domicile excluded)	Strict provisions on misappropriation Commercial letting of private living space is not tolerated Fines range from €50,000 to €500,000
London	1.8%	90	Maximal rental period is 90 days Extra permit for longer rental periods can be applied for
Paris	1.2%	120	New law requires city approval for listing on sort-term rental platforms
Barcelona	0.3%	-	Short-term rental providers require a license issued by the city Residents can report unauthorized providers Planned a halt to the licensing process
Rom	0.5%	365	Provider requires permission from local police Short-term rentals are taxed at 21%

Source: Morningstar, PitchBook, "Airbnb's Network Effect Offers Investors a Unique Stay" - all information without guarantee

Table 1 - Large differences in short-term regulation in Europe

4 EXTENSION OF THE VALUE CHAIN THROUGH SERVICED APARTMENTS

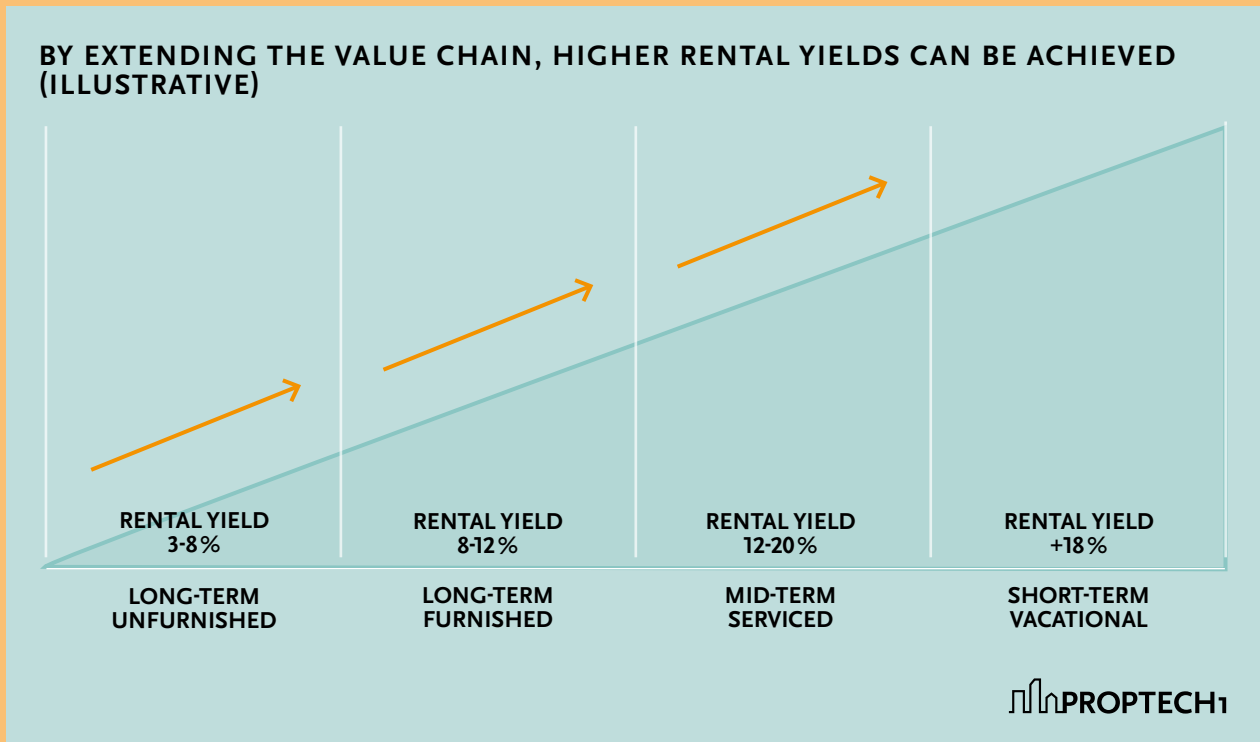


Figure 7: Illustrative overview of rental yields per segment of the value chain

»» It's not a question of if we would like to become more of a service provider than a pure provider of real estate space: we need to. ««

Real estate leader (pwc; Emerging Trends in Real Estate Europe 2018, surveyed real estate experts remained anonymous)

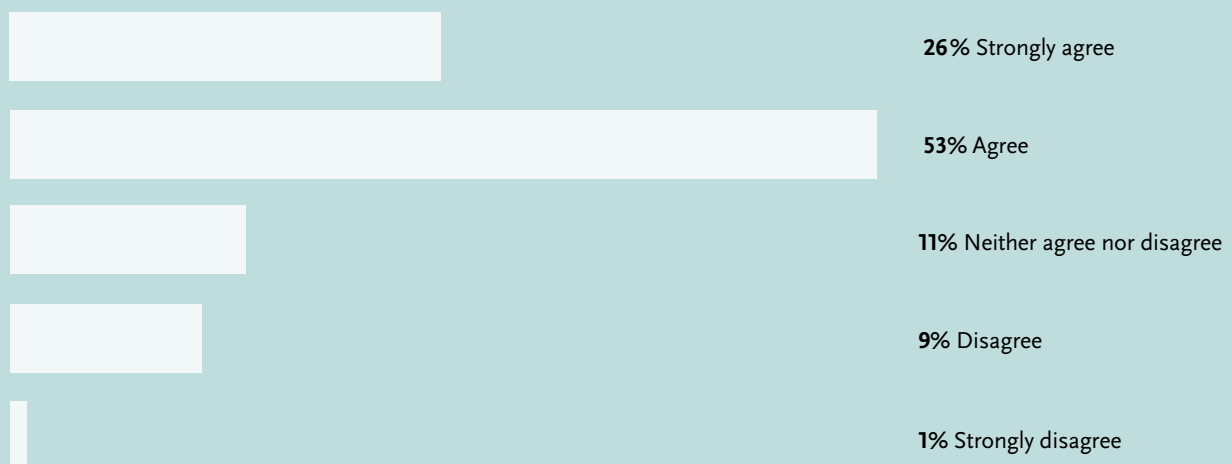
The possibility of furnishing properties and renting them out with additional services has always been open to traditional property owners. However, management providers for serviced apartments are making it easier than ever before for them to extend their value chain and thus increase their rental margins. After all, this is a goal that could increasingly become the focus of landlords in the future: After years of positive to booming development of the real estate economy, players are showing increasing skepticism about the yield expectations of the future due to fears of a deterioration in the interest rate environment, high investment pressure, lack of availability of assets and tendencies towards international political instability.

With low return on investment in the traditional long-term segment, real estate investors and property owners are looking for ways to expand their long-term strategies in order to maintain their return levels. One of these ways is to extend the value chain. In comparison to the do-it-yourself model of making the real estate portfolio available to the short and medium-term market on one's own initiative, the use of specialized providers (or a combination of both approaches) offers various advantages. For example, the portfolio owner leases his properties to the external property mana-

ger at a premium of 10-25% on the classic long-term rent. They rent to the residents at a further surcharge, but in return take over the furnishing, marketing, administration and provision of the services. Due to economies of scale and the creation of an overarching concept of community, which these external providers often place at the centre of their efforts, they justify their rental premium to the tenants. An optimized process of constant new letting also leads to a reduction in vacancy periods, which have previously decreased yields, making short-term rental more lucrative than in the past.

Alternatively, companies with correspondingly large real estate portfolios can develop inhouse technologies similar to those of the marketing and operation supporters. Although this requires the willingness of a financial investment that should not be underestimated, it can pay off over a longer time period due to the emancipation from the secondary middlemen.

DEGREE OF APPROVAL OF LEADING REAL ESTATE EXPERTS OF THE STATEMENT "INVESTORS ARE TAKING MORE RISK TO REALIZE TARGET RETURNS."



Source: pwc, Emerging Trends in Real Estate Europe 2019

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Figure 8: Outlook of leading real estate experts on future returns

4.1 THE SHIFT OF MARKET SHARE FROM THE HOTEL MARKET TO THE VACATION RENTAL SEGMENT

The short-term vacation rental segment is growing at a high-speed rate and will generate a worldwide turnover of \$154 billion this year - a growth of 50% compared to \$102 billion in 2014. This figure is estimated to rise further to \$221 billion by 2022.¹³ The global hotel industry is growing at a rate of only 4%.¹⁴ Furthermore, an increasing professionalization of the market has been observed in recent years. 40% of Airbnb's turnover is generated by hosts who advertise several properties on the platform, i.e. are presumably not private providers.¹⁵ The hotel industry is therefore undergoing a process of profound upheaval as a result of increasing competition from apartment rentals.

In this environment, property owners are confronted with the extraordinary opportunity of picking up part of the cake from the hotel market, which they were denied in the past. The attempt to compete with the hotel industry was uneconomical in the past for two main reasons: 1) Due to the lack of online marketplaces, guest acquisition costs were much higher and the occupancy rate of an apartment used for short-term rental was considerably lower. 2) Hotels and hotel chains had economies of scale and an advance in knowledge over regular property owners. This competitive advantage is levelled out by the strong growth in the range of marketing and operation supporters. On the one hand, they gain a know-how advantage by aggregating their own data and being able to access the data of the tertiary supporters of the supporters. On the other hand, it is these tertiary providers in particular who enable them to create economies of scale by keeping their own personnel costs low and drawing on the more flexible specialists.

4.2 THE (COUNTER-) TREND CO-LIVING

Where, on the one hand, the consistent continuation of the historical development in short- and long-term rental has led to a fragmentation of the market and the division of the value chain product chain among several specialists, on the other hand, a group of providers emerge which centralize all operational tasks again and unite them under one roof. The best example of this is the co-living trend. Models like "The Collective" described at the beginning move the community idea and an unconditional "excellence" in the user experience into the center of their effort and offer a multitude of amenities - similar to a hotel centralised in one object. While every single tenant has their own private bedroom, everything else is shared. In the "premium flat share", there is a common living room, a kitchen for all flatmates of the "units", and also the bathroom is shared in most cases between several flatmates. The tenants do not have to worry about any other "inconveniences". Before moving in, the rooms are already furnished, service staff ensure regular cleaning and the next "house party" is organized by the co-living operator.

Co-living models differ essentially in the degree of capital employed. Either the co-living company acts as the owner of the co-living property or the company rents objects so that it merely serves as the operator of the co-living unit.

¹³ Morningstar, PitchBook, „Airbnb's Network Effect Offers Investors a Unique Stay“

¹⁴ TMR Research, „Hotels Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast 2015 – 2021“

¹⁵ CBRE Hotels' Americas Research, "Hosts with Multiple Units – A Key Driver of Airbnb Growth"

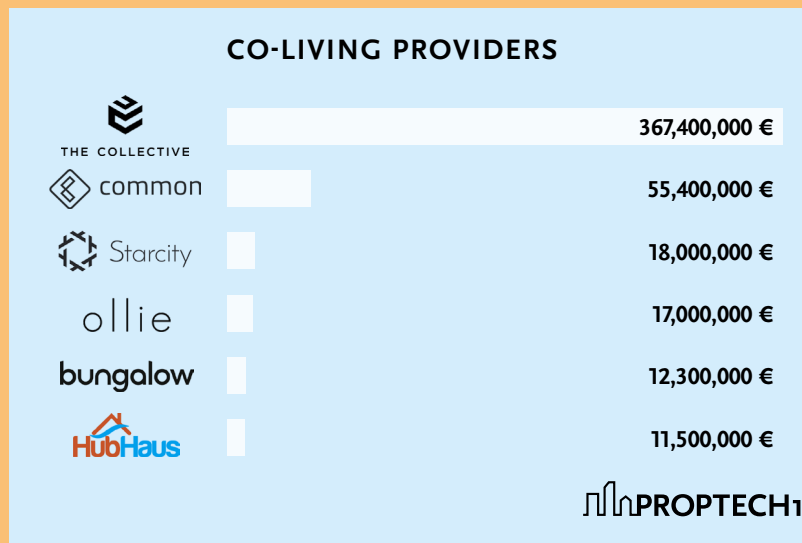


Figure 9: Co-Living providers with the highest financing volume

4.3 CO-LIVING AS A COMPARATIVELY UNDERFINANCED MARKET SEGMENT AND LEARNINGS FROM WEWORK

News about newly opening co-working spaces and equity financings of the different providers are overturning. In the seven largest German cities of Berlin, Hamburg, Munich, Cologne, Frankfurt, Stuttgart and Düsseldorf alone, co-working providers rented more than 200,000 square metres in 2017 - five times as much as in the previous year.

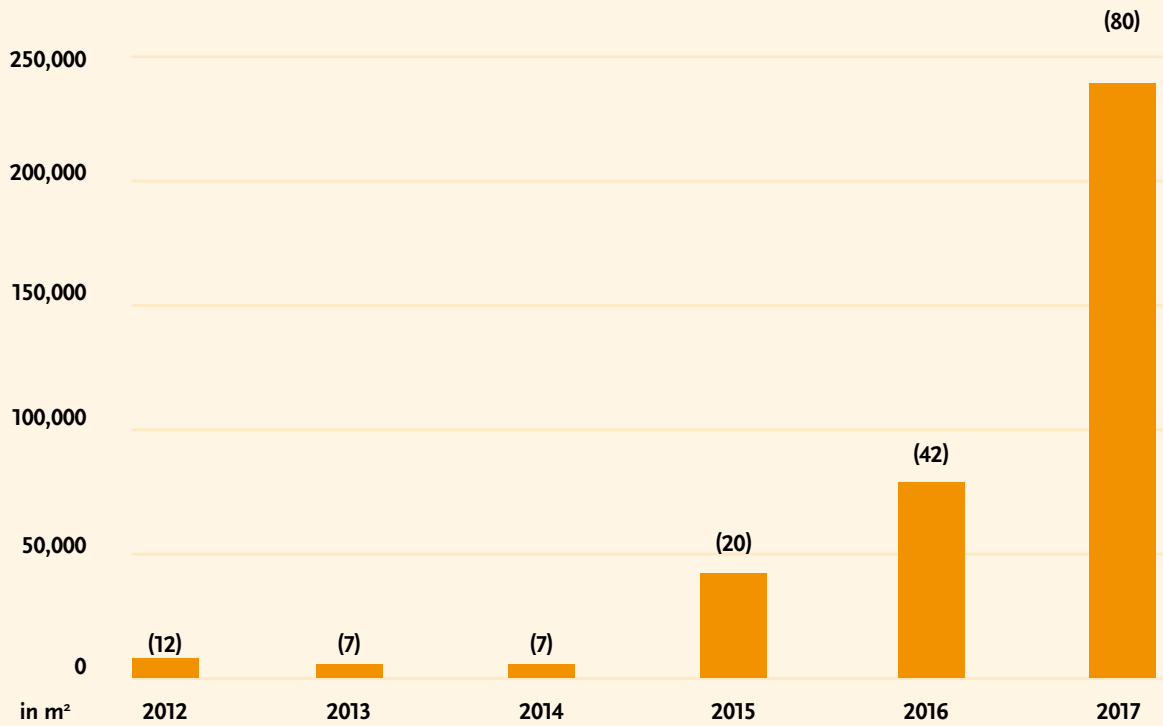
Co-living spaces, on the other hand, are by no means as present as co-working spaces in German as well as international cities. This is already evident from the investment volume that has flowed into the co-working and co-living segments respectively. The top dog WeWork alone was financed with \$12.1 billion in external capital. According to our research, only a fraction of this was invested in the entire co-living segment at \$500 million. Here, too, The Collective has crystallized into an industry leader in the form of the most recent financing round of \$400 million, but its nominal lead is still far from that of WeWork. This uneven development between investments in the

co-working and co-living sectors is at least remarkable, if not surprising. The residential share of the global real estate volume is 5.6-times larger than the commercial segment.¹⁶ Thus, co-living, at least in theory, offers enormous growth and thus also investment potential.

Reasons for the absence of a similarly pronounced investment boom in the co-living sector certainly lie in the stronger regulation of residential real estate compared to real estate with commercial use. But the co-working giant is its residential counterparts ahead in one crucial aspect: With its approx. 1 million squaremeters of office space, WeWork has succeeded in establishing a globally recognizable brand that is used synonymously with the term "co-working". Membership allows its users to use the offices anywhere in the world, whether in Berlin's Scheunenviertel or in South African Cape Town. In every co-working space, members can expect the same amenities: contemporary and clean offices, prestigious buildings and meeting rooms for receiving business partners, fast Internet, functioning printers, good coffee.

¹⁶ Savills World Research, "Around the World in Dollars and Cents 2016"

**MARKET FOR CO-WORKING SPACES
RENTAL INCOME TOP 7 CITIES IN GERMANY (NUMBER OF CONTRACTS)**



Source: Colliers, Coworking Center – Brauchen wir das?



Figure 10: Growth of business centers, professional co-working centers and other co-working centers

**THE CO-WORKING AND CO-LIVING SECTORS DEMONSTRATE
A STRIKING IMBALANCE IN INVESTMENT VOLUME**

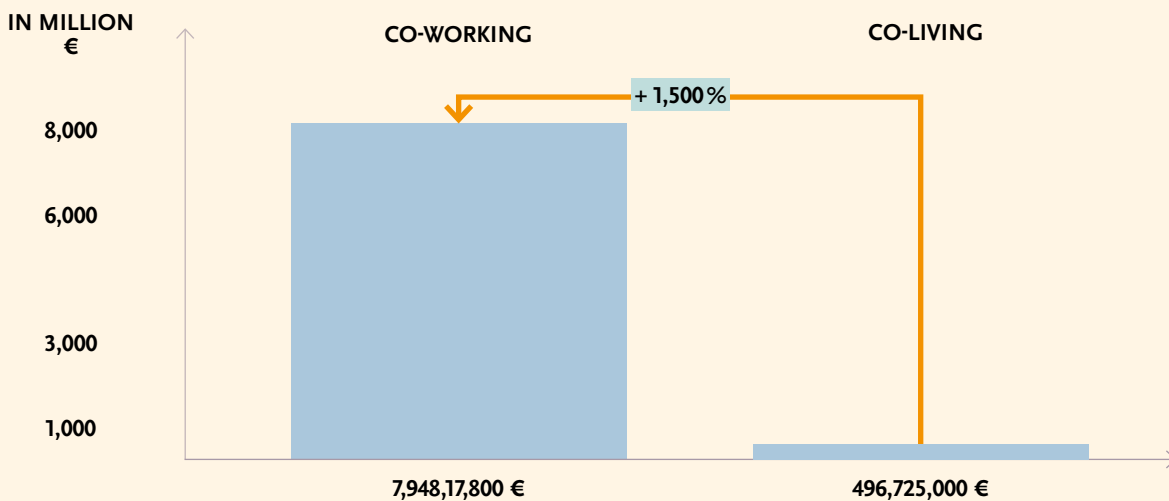


Figure 11: Investment imbalance co-working versus co-living

Similar to McDonald's, the product does not require any superlatives in terms of quality in order to establish a global brand, but focuses on a pedantically uniform and reliable user experience. At WeWork, every element, no matter how small, is standardized globally, right down to the typical fruit water. Interestingly enough, newly established hotel chains such as citizenM also have an increased focus on a modern user experience that appeals to millennials.

A brand in the co-living sector that is even close to being comparable has yet to emerge. In this segment, the providers are geographically strongly restricted to one city or country. Where, however, there is a need to work flexibly worldwide, there is also a need to live flexibly worldwide. Just as hotel chains around the world value a uniform interior and consistent standards, a co-living provider with the same approach would have clear competitive advantages as users would also develop brand loyalty and appreciate the simplicity of a single global contract. We therefore see potential for market players, especially in the co-living segment, who can keep users in their system for a longer period of time through an international presence and a corresponding brand development.

THE RESIDENTIAL SEGMENT ACCOUNTS FOR THE LION'S SHARE OF THE GLOBAL REAL ESTATE UNIVERSE

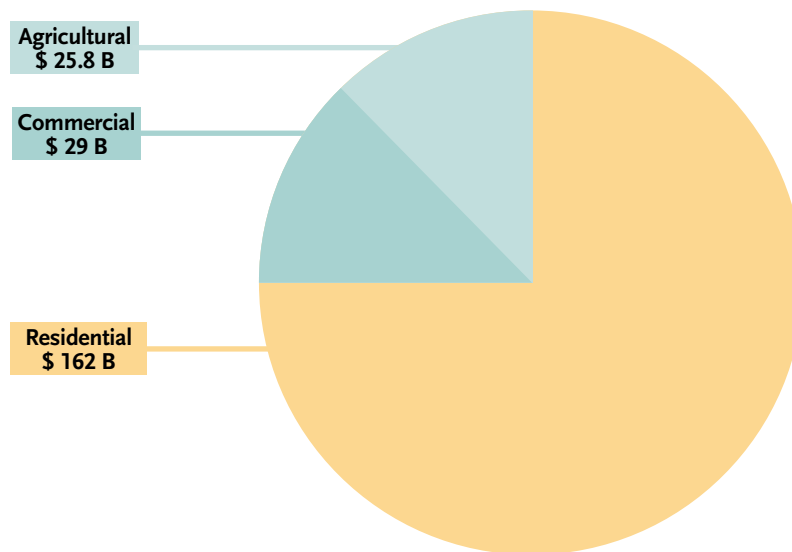


Figure 12: Residential, commercial and agricultural sectors in the global real estate universe

»» The attractiveness of co-living spaces and thus the chance of a comparable development analogous to WeWork in the commercial real estate sector can only be ensured if the corresponding providers also have a say in the building planning. Ordinary residential buildings naturally do not have the desired ratio of communal areas and small private rooms. Conversion measures, if at all possible, are costly and time-consuming and hinder rapid growth. Project developers and investors must therefore plan the optimal co-living building together at an early stage and take the needs of future residents into account. ««

5 INVESTMENTS IN INNOVATIVE COMPANIES IN THE SHORT AND LONG-TERM RENTAL SECTOR

If a short-term rental of a part of one's own real estate portfolio can lead to an increase in returns, direct participation in fast-growing startups that embrace current market developments and benefit from them can lead to far higher returns - of course with increased risks as well. A direct connection with the relevant suppliers also leads to proximity to the innovations offered by these specialists. There are two possible ways to invest, but they are not mutually exclusive.

On the one hand, it is direct investments in the PropTech startups themselves. The advantage of this strategy lies in the autonomy of the investment decision. As a direct investor, it is possible to "cherry pick" and select the most attractive startups, measured against your own strategic challenges, negotiate conditions and - assuming a corresponding investment sum - exercise control over the company. However, this path also requires a precise overview of the market and its players, knowledge of the venture capital investment process, a well-developed network in the startup scene and sufficient capacity and knowledge in the post-investment management of startups. Otherwise, there is great danger of clinging to the first available investment opportunity, not recognizing excessive valuations, generating adverse selection and implementing structural errors by failing to create an alignment of interests between the founders and the investor, which all too often leads to suboptimal development of the startup.

The second possible way is an indirect investment, i.e. an investment in a venture capital fund that in turn focuses on startup investments. Although control is transferred to the general partners, i.e. the investment managers of the fund, the fund also benefits from their specialization, network and experience in finding and negotiating the best deals. In addition, a balanced portfolio of a VC investor through appropriate diversification leads to a decreased risk of losing all of one's capital employed. A good VC also benefits from a research team whose main task is to act as "truffle pigs", i.e. to find the best companies in a sector among a multitude of investment opportunities and to build up expertise in many market segments that goes far beyond the horizon formed by one's own core business. Last but not least, VCs as financial investors are often the preferred partners of the best startup founders, as they do not have to fear a political or strategic agenda of the investor and can raise "neutral" money, which does not stigmatize them on the market. In addition to capital, experience has shown that good VC teams can also provide support in important strategic and operational issues in the startup life cycle.

6 CONCLUSION

The quality of the current rental process and the expectations of current tenants could not be further apart. This applies not only to the long-term leasing of real estate, but especially to short-term models that have to take into account the requirements of a world of growing mobility. Just as the retail, media and financial industries have been forced in the past to adapt their processes in the age of increasing digitalization, an armada of PropTech startups has positioned itself to take advantage of the lack of flexibility in the real estate industry. Some are deliberately disruptively positioned to take the "butter off the bread" from established players, while others present themselves as partners to the established industry. In the increasingly decentralized market for short and medium-term rentals, specialized providers have emerged that support property owners in marketing and operating serviced apartments and enable them as never before to become potent competitors in the hotel industry. The best of these enablers will be rewarded with strong growth and attractive returns for their investors.

In the (counter-) trend of co-living, in which all operational expenses, at least in terms of user experience, are seamlessly combined under one roof, there is still an investment gap compared to co-working. The importance of brands in the real estate world in general should continue to rise strongly. For traditional commercial and retail landlords, this is still practically unexplored territory. Brands and their suppliers, which manage to offer international availability and a

globally consistent quality standard similar to the WeWork model, are a conceivable form of play that should also achieve attractive returns. As always with disruptive market changes characterized by innovations such as digitalization and new user needs, risks and opportunities arise equally for traditional market participants. A proactive, holistic innovation management will often decide whether established players can successfully operate and grow even under changed market conditions or whether they are overtaken by evolution and are decimated or no longer viable at all.

When designing and implementing such an innovation management system, the wrong question is often asked as to whether investments in startups should be primarily direct or alternatively indirect (e.g. via VC funds). The question is wrong because for every real estate company with a certain size and seriousness of activity a combination of both courses of action is always the right answer, a finding which, for example, the winners in sectors already affected by digitalization, such as trade, media or banking, have learned over the years.

The systematic networking with startups, the generation of early practical learning, the possibility for partnerships, direct co-investments or even takeovers as well as the networking with other innovation-savvy real estate companies and entrepreneurs are core aspects that a well-designed venture capital fund offers its investors in addition to financial returns.

PropTech1 Ventures, Germany's first venture capital fund focused on European PropTech startups

PropTech1 Ventures (www.proptech1.ventures) is Germany's first venture capital fund focusing on European PropTech startups. After the real estate industry, the so-called "sleeping giant", has shied away from real innovation for decades, it now faces drastic change due to digitalization. This provides tremendous opportunities for PropTech startups focused on the optimization, digitization, and disruption of the real estate industry. The VC fund was co-founded by real estate entrepreneur Marius Marschall von Bieberstein (Managing Partner evoreal) and the Managing Partners of COOPERATIVA Venture Group, Nikolas Samios and Anja Rath, and is actively supported by the Venture Partners Dr. Beat Schwab (former Head of Global Real Estate Asset Management Credit Suisse), Andreas Wende (Managing Partner NAI apollo), Christian Vollman (CEO & founder nebenan.de and "Business Angel of the Year 2017"), Kristofer Fichtner (co-founder Thermondo), Ni-

cholas Neerpasch (CEO & co-founder of Doozer), and Dr. Peter Staub (CEO & founder of the real estate consultancy pom+). The shareholders of the fund so far consist of 18 real estate companies and entrepreneurs from all areas of the value chain. In addition to venture capital, PropTech1 provides PropTech companies with expertise and market access from leading experts in the traditional real estate, PropTech, and venture capital areas. Through its analyst team, which covers the DACH, UK, and Nordics focus regions and monitors international trends, PropTech1 offers its fund investors access to what we consider to be the most interesting startups in the scene, proven venture capital method expertise, financial participation both through the fund as well as through direct co-investment opportunities, and the moderated exchange with other innovative real estate companies and the PropTech startups themselves.

A team that combines the best of three worlds: Traditional real estate industry players plus PropTech entrepreneurs plus VC methodologists

Creation of a balanced minority stake portfolio of PropTech startups based on our extensive deal flow

Much higher smart money benefit for startups compared to industry-agnostic VCs thanks to our close-knit industry network

Considerable added value for investors from the real estate industry, e.g. by enabling direct co-investments and hosting workshops

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