

Airbnb in Prague: ———

Analysis of the Quantity, Structure, And Distribution of Accommodation on Offer As of July 13, 2021

Author

Mgr. Veronika Marianovská / Office for City Analysis / marianovska@ipr.praha.eu

Collaboration

Mgr. Michal Němec / Office of Sustainability Strategies and Policies Mgr. Lenka Petříková / Office of Sustainability Strategies and Policies Ing. arch. Martina Portyková / Office for City Analysis

Typesetting and graphic layout of image attachments

Ing. arch. Zdeňka Havlová, Ph.D. / Office for City Analysis Ing. arch. Markéta Stefanová / Office for City Analysis Ing. arch. Alena Zmeškalová / Office for City Analysis

Translation

Vendula Kwiek

09/2021

Prague Institute of Planning and Development Department of City Development

© Prague Institute of Planning and Development 2021 All rights reserved

https://iprpraha.cz/en/

CONTENTS

1.	INTRODUCTION	•
	Source of datasets	
	The time series and its limitations	
	Other methodological limitations of the datasets Definitions	2
1.1.4	Delimitions	2
2.	AIRBNB IN PRAGUE	(
2.1	Basic characteristics and distribution of units	(
2.1.1	Structure of the offer	(
	Distribution of Airbnb units in Prague	(
	Territorial differences in the structure and use of units	{
2.1.4		10
2.2	Comparison of units in Prague with selected European cities	14
2.2.1	Prague's position among selected European cities	14
2.3	The development of Airbnb units in Prague	18
2.3.1	The development of units since 2016	18
2.3.2	Comparison of the number of units in 2018, 2019 and 2021	19
3.	EVALUATION OF IMPACTS AND CHANGES	22
3.1	The housing market	22
3.1.1	Airbnb's offer in relation to the total housing stock	22
3.1.2	Airbnb's offer of apartments for long-term rent	23
4.	APPROACHES TO THE REGULATION OF SHORT-TERM PRIVATE	
4.	APPROACHES TO THE REGULATION OF SHORT-TERM PRIVATE ACCOMMODATION AND THEIR DEVELOPMENT	2!
4. 4.1		2! 2!
4.1 4.1.1	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes	
4.1	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes	2.5
4.1 4.1.1	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes	2! 2!
4.1 4.1.1 4.1.2 4.2 4.3	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level	2! 2! 26 27
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam	2! 2! 26 27 27
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris	2! 2! 26 27 27 27
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona	2! 2! 20 27 27 21 28
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris	2! 2! 26 27 27 27
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona	2! 2! 20 27 27 21 28
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague	2! 2! 20 2; 2; 28 28 36
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague The relationship between Airbnb units and Prague's housing stock	2! 22 27 27 28 28 28 30 31
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague	2! 2! 20 2; 2; 28 28 36
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague The relationship between Airbnb units and Prague's housing stock	2! 22 27 27 28 28 28 30 31
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague The relationship between Airbnb units and Prague's housing stock Regulating Airbnb INDEXES AND LISTS Related legislation	2! 22 22 21 22 28 28 30 3: 3: 3:
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague The relationship between Airbnb units and Prague's housing stock Regulating Airbnb INDEXES AND LISTS Related legislation References	2! 26 27 27 28 28 30 33 33 34 34 34
4.1 4.1.1 4.1.2 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ACCOMMODATION AND THEIR DEVELOPMENT Development of the approach in the Czech Republic Approved legislative changes Initiated legislative changes Development of the approach on the European Union level Examples of approaches on the EU city level Amsterdam Paris Barcelona Vienna CONCLUSION The structure and development of Airbnb in Prague The relationship between Airbnb units and Prague's housing stock Regulating Airbnb INDEXES AND LISTS Related legislation	2! 22 22 21 22 28 28 30 3: 3: 3:

1. INTRODUCTION

Short-term rentals are a phenomenon of our time. Its development is related not only to advances in information technology, the availability of the Internet, growth in the number of tourists (especially in cities), but also to changes in lifestyle and travel in general. While this type of accommodation is not new to the travel industry, its proliferation and growth in popularity in the second decade of the 21st century is unique.

The development is particularly associated with the Airbnb platform, which is currently the largest provider of this type of tourist accommodation. However, this is not the only existing platform; others include Wimdu [2021], Vrbo [2021], Booking.com [2021], Couchsurfing (2021) and even Czech companies such as E-chalupy [2021] or Chata.cz [2021], many of which have been on the market for a long time.

The analysis presented here deals exclusively with the location and development of units offered on Airbnb. The reason is on the one hand the widespread availability of this offer in Prague, and on the other hand the availability of data (→ ch. 1.1). This document is the second updated version of the analysis.

The 2018 analysis already [Marianovská & Němec, 2018] showed that the impacts of the rapid development of Airbnb in Prague are significant and influence the lives of local residents, businesses and the functioning of the city as a whole (e.g., in housing and property prices). Some other shortcomings have also emerged in connection with the spread of the Covid-19 pandemic, in particular those in the area of safety [iRozhlas, 2020]. The impacts of Airbnb development are also linked to the overall tourism load in Prague and the significant increase in the number of tourists

in Prague in recent years [Prague City Tourism, 2020].

This analysis is being published at a time when visitor numbers to Prague are declining (ČSÚ, 2021) and there is thus also a decline in the number of short-term rentals offers, which are largely (mainly in the city center) linked to the arrival of foreign visitors. At the same time, the analysis does not examine the relationship between tourism and the accommodation offer on Airbnb. This section has been omitted from the updated analysis due to time constraints (\rightarrow ch. 1.1).

The updated analysis deals primarily with three areas, which are presented in the following chapters of the text: the current state and development of Airbnb units in Prague, a comparison of Airbnb in Prague with selected European cities, and a research of measures and legislative adjustments to the functioning of Airbnb at the level of Prague, selected European cities and the European Union.

1.1 Update 2021

An update of the analysis of Airbnb in Prague was created after more than three years [Marianovská & Němec, 2018]. The time series is quite robust at this time and the amount of data that can be displayed is greater. The 2018 analysis was created at a time of long-term economic growth, which was reflected in the increase in the number of foreign visitors and thus growth in the number of units offered on Airbnb in Prague. Compared to the previous period, the new analysis is carried out in a time of downturn, especially in terms of tourism and international travel in general. This is at a time when tourist activity is slightly increasing after the restrictions related to protection against the spread of the Covid-19 pandemic, but at the same time when it is still far from reaching the growth of 2018 (for more info → ch. 3.3.2).

The update of the analysis is primarily conducted in such a way as to compare developments and changes between 2018 and 2021 (see, inter alia, the comparison in → ch. 2.2.2). For this reason, the analyses and data displays were kept (where possible) in the same scope and wording as in 2018. Sometimes these displays are expanded with additional clarifying information or slightly modified for purely methodological reasons (→ ch. 1.2). The structure of the document is thus largely the same as in the 2018 analysis.

In particular, the analysis now displays data related to the activity of units offered on Airbnb [2021]. On the other hand, data showing occupancy (based on the calendar) were omitted from the update for methodological reasons. The update also offers a comparison of Airbnb's development from the 2018 analysis and a comparison of 2018 and 2021. The "analysis in relation to tourism" and "potential impacts on quality of life" sections were not included in the update at all due to time constraints. In this update, you can read not only about the current state of one of the largest short-term rentals platforms, Airbnb, as of July 2021, but also about the development of the units offered and how these units have been used.

The methodology of analysis and data collection does not differ significantly from the original analysis. The document examines data for Airbnb units in Prague (and selected European countries). The reasons for choosing this particular platform are already described in the original 2018 document. A more significant difference from 2018 is the source of the datasets. This time, these come exclusively from Inside Airbnb [2021] and Tom Slee [2017] (for data from 2016 and 2017; \Rightarrow ch. 1.1.1).

1.1.1 SOURCE OF DATASETS

The datasets containing information about units offered on Airbnb's website come from the independent, non-commercial source Inside Airbnb [2021]. This data is obtained directly from Airbnb's website via web-scraping, always on

a certain date of the month (see below). All data contained in the datasets are publicly available on the Airbnb website.

The individual datasets contain three basic files:

- "listings" contains data about all offered units that were publicly available at the time of download and the attributes that are associated with the unit on the website (e.g., number of reviews, date of last review, number of beds offered, host name and ID, etc.)
- "reviews" contains information about all the reviews that have been published on the website up to the time of download. A unit number is assigned to each review, so that, for example, their relevance can be examined in more detail.
- "calendar" contains information about the availability of units in the next 365 days. However, this dataset has a significant methodological limitation in its reliability. A large number of calendars are not updated, so the information in this dataset may be misleading.

In the following analysis, only the "listings" dataset is used, which is quite sufficient for the purposes of this publication.

1.1.2 THE TIME SERIES AND ITS LIMITATIONS

The Prague Institute of Planning and Development has a time series available from 2016 to July 2021. The data are released monthly from 2018 onwards, always on a specific date of the month. However, this series is not complete and data for some months could not be obtained by IPR Prague.

Data from 2016 and 2017, where IPR Prague has 2 datasets for each year, was obtained from the initiator of this collection, Tom Slee. Tom Slee started collecting data about Airbnb from their site in 2013. In 2017, Tom Slee was asked by the Prague Institute of Planning and Development to provide this data for the Prague area. Based on this request, data for March 2016 and September 2017 were provided to IPR Prague individually.

In 2017, Murray Cox, founder and webmaster of Inside Airbnb, followed up on this data collection. In early 2018, IPR Prague approached Murry Cox with a request to include Prague in the list of cities for which data is collected. Since then, IPR Prague has been obtaining datasets from this website. The data are published once a month on a certain date of the month (this date is not the same for each month). However, there are omissions and some months are not included in the time series. A complete list is included in the Annex to this document (\rightarrow Annex P.01).

2 —— 1. Introduction —— 3

1.1.3 OTHER METHODOLOGICAL LIMITATIONS OF THE DATASETS

Although the datasets are robust and the insights can therefore be quite detailed, the data has limitations. These limitations apply both to the collection of data and to the data itself.

The first important limitation is related to the fact that the data is downloaded on a certain day of the month. It is therefore a one-time summary of data at a given point in time. Only data that is visible at the time is downloaded. Therefore, it may occur that data of long-term reservations is not included in the database.

This is also related to the second limitation: the datasets do not include data for units that are no longer offered on Airbnb. The data is downloaded for individual units to which other properties are assigned, such as the number of beds, number of bedrooms, hostID, price, number of reviews etc. So if we are tracking, for example, the number of reviews, which should represent the number of stays in a city, the new data may not include the number of past reviews (if the unit has since stopped being offered on Airbnb).

The unit information also includes the location of the units. Due to the anonymization carried out by Airbnb itself, this figure does not represent the exact address of the unit, but rather the center of a circle with a radius of approximately 150 m. This means that the location of the unit may differ by up to 150 m from its actual address.

Reviews are one of the important attributes that can indicate the unit activity on the one hand and indirectly the number of guests or stays on the other. The first figure (unit activity), which is ascertained from the date of the last review left, is not so problematic¹. Estimating guest numbers from the number of reviews can be problematic for two main reasons. Firstly, one review is left per stay, not per guest. This means that one review can actually have between 1 and 10 guests. Secondly, some reviews may be spam, for example, they may not be left at all (even though guests are officially required to do so) or may be a "no-show" review. In the time series, the observed increase in reviews can be problematic because reviews are deleted from Airbnb's site along with the unit.

Other possible limitations are mentioned directly under definitions and terminology or in the text.

1.1.4 DEFINITIONS

unit

By unit, we mean a single accommodation that is offered on Airbnb, has its own identification number and associated attributes (e.g. number of bedrooms, host ID and name, maximum number of guests, last review date, unit type, etc.). The unit is the basic data on which all analyses in this document are based. The term ,units offered on Airbnb' is most commonly used in the document, referring to all units that were publicly available on the platform at the time the data was downloaded. For each unit there is an indication of what type it is: entire apartment/house, private room or shared room.

entire apartment/house

Represents a type of unit that occupies an entire apartment in an apartment building, family house or other type of accommodation. However, it can also be an entire family house. However, this case is more relevant for coastal or mountain destinations or rural areas.

hotel room

Hotel rooms have been listed on Airbnb since around mid-2018 and are not part of the previous analysis. These are rooms that the host him/herself states are part of a hotel. However, based on the type of property, it is evident that some private rooms are actually part of a hotel, but are not listed in this category.

private room

A type of unit where one room in an apartment or house is offered. These rooms can be rented separately, i.e. one room is rented in the apartment and the rest of the apartment is used for a long-term or medium-term stay, or it can be one room of several that are rented in the apartment or house. Private rooms can also be found in hostels, bed & breakfasts, aparthotels or other accommodation facilities. Due to the anonymization of the location of the units, which is carried out directly by Airbnb, it is not possible to determine whether there are multiple private rooms in the same house or at the same address.

shared room

A shared room is a unit where a bed is offered in a room that is shared with another guest. These rooms are most often found in hostels.

active unit

A unit is considered active if the last review was left no later than 3 months from the time the data was downloaded. This means that in the last three months this unit has probably been used at least once; at least one stay has been recorded.

beds

Beds are the standard unit by which the capacity of accommodation facilities is measured. In the case of Airbnb data, the number of beds ("Beds") is listed for most units. However, these are not standardized beds as in the case of collective accommodation establishments, but rather the number of beds or places to sleep. Many of the beds are in fact double beds, some are sofa beds or even air mattresses.

host

The host is the profile that offers the unit on Airbnb. This profile can represent either the owner of the unit, the brokerage firm or the operator of the unit. This information is not available from the datasets. Each host profile has a unique ID, so it is possible to see if and how many units a host has assigned to the profile, i.e. how many units a host is running/offering. The document also works with the terms "Single" host, i.e. a host who offers just one unit on Airbnb, and "Multihost", one who offers more than 1 unit.

review

Each unit has an indication of the number of reviews left. These reviews are recorded from the creation of the unit to its deletion and are always linked to that particular unit. Reviews are required from guests by the platform. At the same time, however, it occurs that guests do not write reviews, or reviews are written even if the guest does not arrive, or reviews are artificially inflated to increase the attractiveness of the unit. On the other hand, since reviews are linked to units, deleting a unit will also delete all the corresponding reviews. Based on the "San Francisco model", Inside Airbnb calculates a review reliability rate of approximately 50% for calculating stays [Inside Airbnb, 2021].

maximum number of guests

This shows the maximum number of guests the host is willing to accommodate in the unit. In some cases, where a unit is part of a hostel for example, the maximum number of guests may actually be based on multiple units. However, this is not evident from the data and is usually a smaller percentage of cases.

price

Price is per night per unit in the local currency. Various fees are often added to the price per unit, e.g. for an additional guest, cleaning, agency fee, etc. In the document, only the basic price is calculated without additional fees and discounts².

1, Introduction 5

^{2 —} Discounts are often associated with longer stays in the unit.

2. AIRBNB IN PRAGUE

2.1 Basic characteristics and distribution of units

Airbnb is one of the largest short-term accommodation platforms. In Prague, this type of accommodation has been around since 2010 and since then, the number of units being rented has been growing significantly. The following chapter presents the basic characteristics of the distribution and structure of Airbnb units in Prague as of 13.7.2021. Below is an overview of the types of units in Prague, how many of them are active, how many hosts offer these units and where they are located in Prague.

2.1.1 STRUCTURE OF THE OFFER

In the territory of Prague, a total of 6,972 units were offered on Airbnb as of 13.7.2021. Of this number, it is possible to identify approximately 10% as active, i.e. 720 units that have demonstrated at least one stay (review) in the last 3 months. In total, more than 18.5 thousand beds were declared in the offered units. Approximately 1.7 thousand beds were located in active units. The number of hosts managing units at the same time was around 3.5 thousand, of which more than 11% operated active units (→ Fig. 2.1.1.1).

The largest amount of units are whole apartments or houses. They occupy almost 76% of the total Airbnb capacity in Prague. Approximately 18% of the capacity is occupied by private rooms. The hotel rooms³ category includes 4%. Shared rooms are only offered in less than 2% of the cases (→ Fig. 2.1.1.2). In

The "hotel room" category was only set apart in mid-2018, so this category is not part of the original 20w18 analysis

addition, of the total number of shared rooms offered, almost 63% are in hostels. Similarly, of the total number of private rooms, almost 9% are registered as hotel rooms⁴ and another less than 20% are rooms in various types of hostels, guest houses or serviced apartments (e.g. bed & breakfasts).

The number of beds in entire apartments is even higher than in individual units (78%), and the proportion of beds in shared rooms is also higher (more than 3%). On the other hand, hotel rooms and private rooms have fewer beds on average (→ Fig. 2.1.1.2). While hotel and private rooms are usually standardized at 2 beds, shared rooms have a larger average capacity of 4.75 beds per unit. The average number of beds for entire apartments is 2.8, but the range is quite high (from none to 50), with more than 70% of the flats offering one, two or three beds⁵.

2.1.2 DISTRIBUTION OF AIRBNB UNITS IN PRAGUE

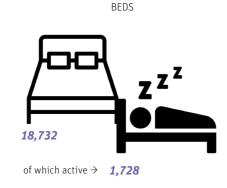
The units offered on Airbnb in Prague are mainly concentrated in the city center and its immediate surroundings. The number of units decreases significantly with the distance from the city center (→ Fig. 2.1.2.1). A higher incidence of Airbnb units is evident in the Historic centre of Prague and its immediate vicinity, particularly to the southeast and north of the area. This reflects the fact that units offered on Airbnb in Prague are mainly used by tourists who prefer accommodation within walking distance of major tourist destinations. Most units are located in Nové Město (1,696), Staré Město (957), Vinohrady (726), Žižkov (616) and Smíchov (459). Over 200 units are also located in Holešovice

- 4 In addition to those included in the category "hotel rooms"
- 5 ——— However, this may also mean a double bed; it is not specified in the data

2.1.1.1 Basic characteristic of Airbnb services offered and active in Prague as of July 13, 2021

IPR Praha 2021 / data: Inside Airbnb 2021

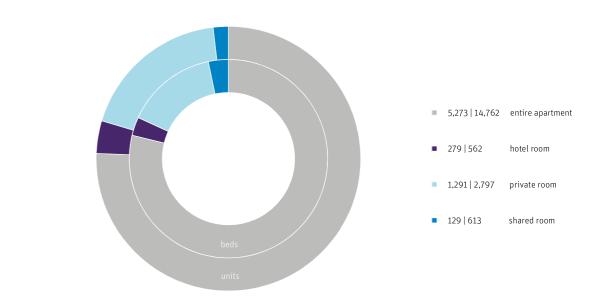






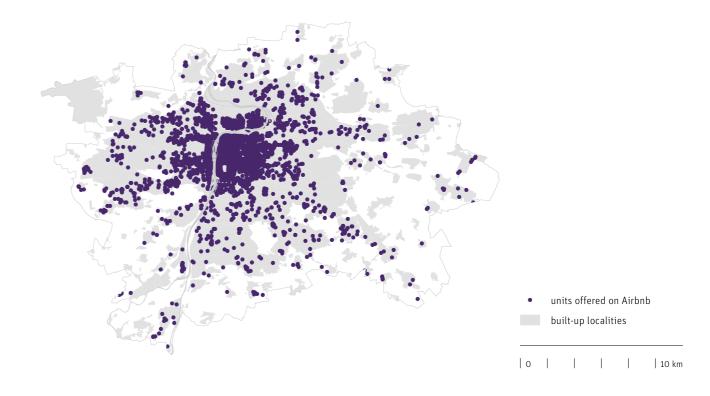
2.1.1.2 Structure of the offer of units and declared beds on the Airbnb website as of July 13, 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2.1.2.1 Distribution of the offer of units on the Airbnb website as of July 13, 2021

IPR Prague 2021 / data: Inside Airbnb 2021



— 2. Airbnb in Prague — 7

and Karlín. More than 100 units are located in Nusle, Dejvice, Vršovice and Libeň.

Looking at the number of units relative to the population $(\Rightarrow$ Fig. 2.1.2.2) and in particular to the cadastral area unit $(\Rightarrow$ Fig. 2.1.2.3), concentration in the historic city center and the inner city area is also evident. **The largest number of units per 1,000** inhabitants is located in the cadastral areas of Staré Město (106), Nové Město (64), Josefov (63) and Malá Strana (57). There are over 20 units per 1,000 inhabitants in Hradčany and Vyšehrad. There are more than 18 units per 1,000 inhabitants in Karlín. A slight anomaly is represented by Třebonice and Lahovice, which have a small number of inhabitants.

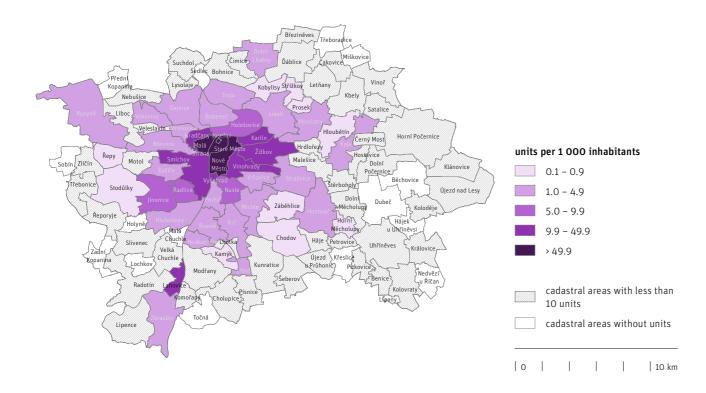
The density of units, i.e., the number of units per 100 ha, is highest in the Josefov area. There are almost 900 units per 100 ha. The density is also high in the Staré Město (741), Nové Město (508) and Malá Strana (229) areas. More than 100 units per 100 ha, i.e., at least 1 unit per ha, are located in Vinohrady, Žižkov, Vyšehrad and Karlín. Conversely, on the outskirts of the city there are often fewer than 10 units in total, representing a maximum of 5 units per 100 ha. Due to the anonymization of the location of the units, it is not possible to determine from the available dataset whether the units are located in the same apartment or family house (→ ch. 1.1.3),

a more detailed analysis of the density of Airbnb units, which would certainly be desirable, is therefore not possible. However, when viewed citywide, there is a clear pattern of concentration of units towards the city center and their diffusion towards the outskirts.

2.1.3 TERRITORIAL DIFFERENCES IN THE STRUCTURE AND USE OF UNITS

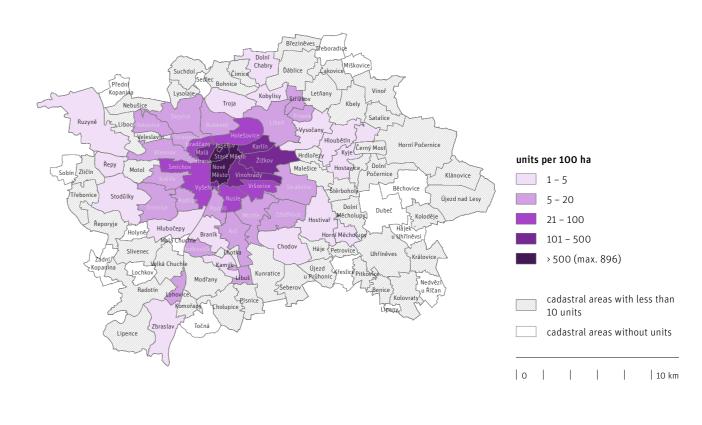
Entire apartments account for 3/4 of Airbnb's offer in Prague (→ ch. 2.1.1). Looking at the individual cadastral areas (→ Fig. 2.1.3.1), a clear pattern of the share of apartments in the total offer is not entirely apparent. In the outlying areas, these are often entire houses or apartments in detached houses, and at the same time their absolute number is relatively low (see cadastral areas with fewer than 10 units). On the contrary, in the city center, where there are more units, the share of apartments in the total offer is lower. Looking at the cadastral areas with at least 50 units, the highest share of flats is in Josefov (77 out of 79), Břevnov (48 out of 56), Bubenec (71 out of 84), Libeň (84 out of 100) or Vršovice (86 out of 103). However, the absolute majority of entire apartments or houses are concentrated in Nové Město (1 315), Staré Město (797), Vinohrady (565), Žižkov (483) and Smíchov (361).

2.1.2.2 Number of units offered on the Airbnb website per 1 000 inhabitants as of July 13, 2021 by cadastral areas IPR Prague 2021 / data: Inside Airbnb 2021



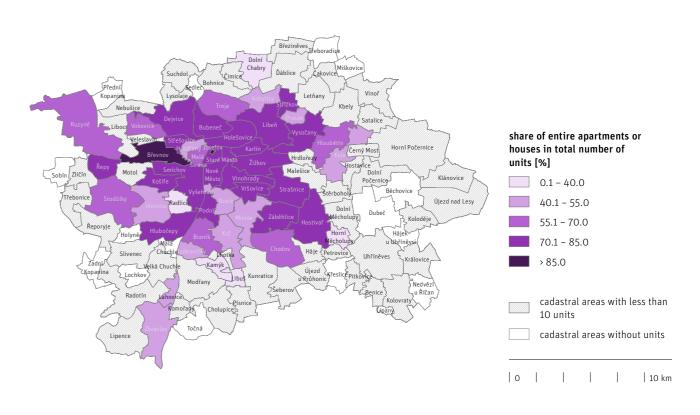
2.1.2.3 Density of units offered on the Airbnb website as of July 13, 2021 by cadastral areas

IPR Prague 2021 / data: Inside Airbnb 2021



2.1.3.1 Share of entire apartments offered on the Airbnb website as of July 13, 2021 by cadastral areas

IPR Prague 2021 / data: Inside Airbnb 2021



—— 2. Airbnb in Prague —— 9

Around 200 flats are also offered in Malá Strana, Holešovice and Karlín.

The average activity of Airbnb units in Prague as of 13.7.2021 was approximately 10%. In territorial distribution, a higher level of activity is evident especially in the belt from the northwest, where Ruzyně Airport is located, to the southeast towards the area of the cadastral territory of Chodov. Though in percentage terms the outskirts of the city appear to be more active (→ Fig. 2.1.3.2), in absolute numbers, these parts often have a maximum of 10 active units. The numbers of active units in the central cadastral areas are more significant (→ Fig. 2.1.3.3). The largest number of active units is again located in Nové Město (183 units; 11% of the total number of units in the cadastral area), Staré Město (128; 13%), Vinohrady (61; 8%), Smíchov (58; 13%) and Žižkov (9%). There were more than 20 active units in the area of Malá Strana,

Holešovice and Karlín as of 13.7.2021. It is therefore evident that the activity of the units is relatively low during this period, even in the historic city center. Lower activity is associated with lower demand for accommodation overall. This is related to the overall decline in the intensity of tourism and visitors to Prague, especially in terms of inbound tourism and therefore foreign visitors.

One indicator of Airbnb's commercial potential is the number of hosts offering Airbnb units. Given the long-term positive growth trend of Airbnb (until the end of 2019, \rightarrow ch. 2.3.1), Airbnb renting became profitable and the number of units owned by one host increased (\rightarrow ch. 2.3.1, \rightarrow Fig. 2.3.1.3). The share of hosts providing just 1 unit in the total number of hosts is higher in the outskirts of Prague and decreases towards the city center (\rightarrow Fig. 2.1.3.4). Conversely, those hosts offering 10 or more units are concentrated in the city center. The highest number of these hosts is in Nové Město, Staré Město, Vinohrady, Žižkov and Malá Strana (\rightarrow Fig. 2.1.3.5).

2.1.4 SIZE STRUCTURE OF AIRBNB UNITS OFFERED

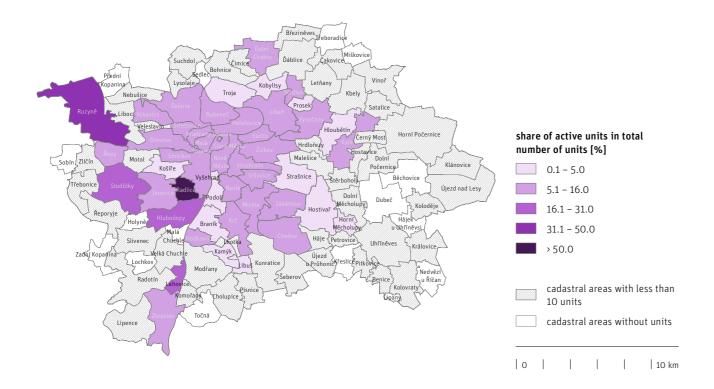
The size structure of the units means their size in terms of capacity. This can be assessed from Airbnb data via three basic parameters:

- 1 number of rooms (bedrooms),
- 2 number of beds listed and
- 3 maximum number of guests

The most common units offered on Airbnb are 1 or 2-bedroom units. More than half of the units on offer are 1-bedroom units. Of these, more than 60% are within entire apartments and

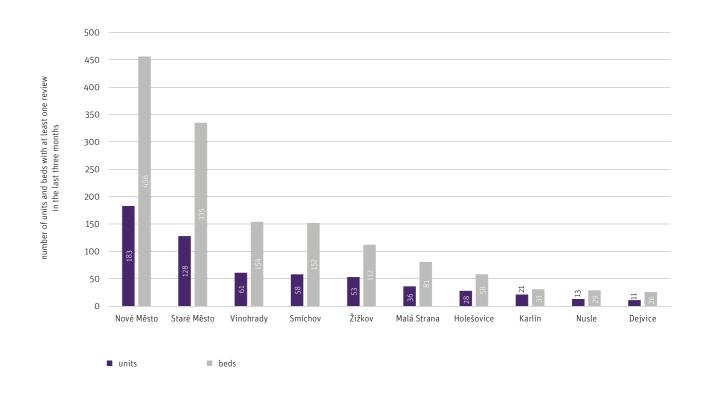
2.1.3.2 Share of active units offered on the Airbnb website as of July 13, 2021 by cadastral areas

IPR Prague 2021 / data: Inside Airbnb 2021



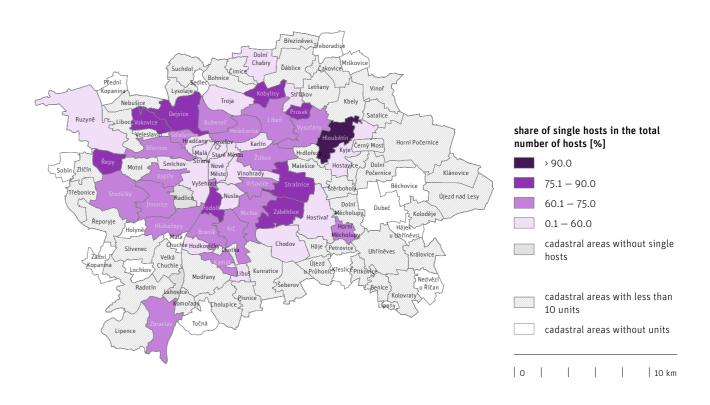
2.1.3.3 Cadastral areas with the highest number of active units in last 3 months as of July 13, 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2.1.3.4 Share of hosts offering just one unit on the Airbnb website as of July 13, 2021 by catastal areas

IPR Prague 2021 / data: Inside Airbnb 2021



2. Airbnb in Prague ——— 11

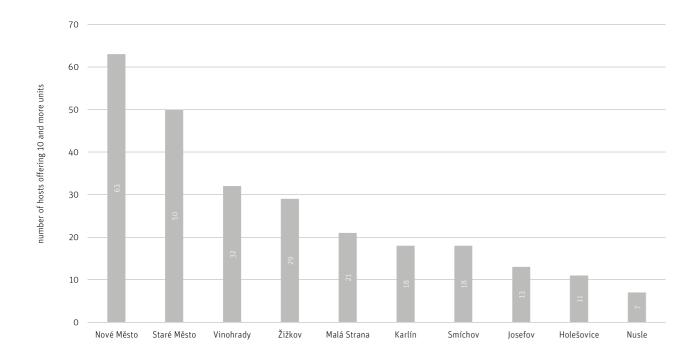
less than 30% are offered as private rooms. Over 90% of the 2-bedroom units are offered as entire apartments. Units with more than 5 bedrooms account for less than 1% of the total offer of units on Airbnb $(\rightarrow$ Fig. 2.1.4.1). The most common type of apartments offered on Airbnb are 1-bedroom apartments (2,588), followed by 2-bedroom apartments (1,336) and studios (729).

Most often the maximum number of guests is set at 2 or 4 guests (→ Fig. 2.1.4.2). Around 12% of units have a maximum number of 3 guests and around 10% have a maximum number of 6 guests. The maximum number of guests in whole apartments is usually set at 4 guests (30% of all the entire apartments offered) or 2 guests (24%). However, the number of apartments where the maximum number of guests is set at 6 (12%, 639 apartments) or 8 (230 apartments) is also significant. More than 10 guests can be accommodated in 312 of the apartments offered. Hotel rooms usually accommodate a maximum of 2 guests. Most private rooms can accommodate 1 to 4 guests, but most often the maximum is set at 2 guests (675 private rooms).

Defert's function (also sometimes referred to as the tourist function) indicates the potential capacity/fullness of a destination (in this case a city). It shows in a simplified way how many tourists it is possible to have in a destination and

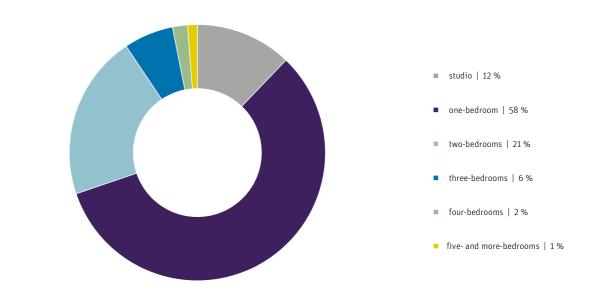
what their ratio to the number of residents is. The Airbnb load increases significantly towards the central part of the city (→ Fig. 2.1.4.3). The highest potential load is in Staré Město (29 beds per 100 inhabitants), followed by Nové Město (19 beds), Josefov (17 beds) and Malá Strana (14 beds). In absolute numbers, the most beds are located in the cadastral area of Nové Město (5 183 beds), Staré Město (2 601), Vinohrady (1 792), Žižkov (1 657) and Smíchov (1 223). There are more than 500 beds in Malá Strana, Nusle, Holešovice and Karlín. On average, units offered in Prague have 2.69 beds. Larger units are offered mainly in the outskirts of the city. The number of beds per unit is also higher in Nusle, where the average is 4.2 beds. In the historic city center, the average number of beds per unit ranges from 2.7 to 3.

2.1.3.5 Cadastral areas with the highest number of hosts offering 10 and more units on the Airbnb website as of July 13, 2021 IPR Prague 2021 / data: Inside Airbnb 2021



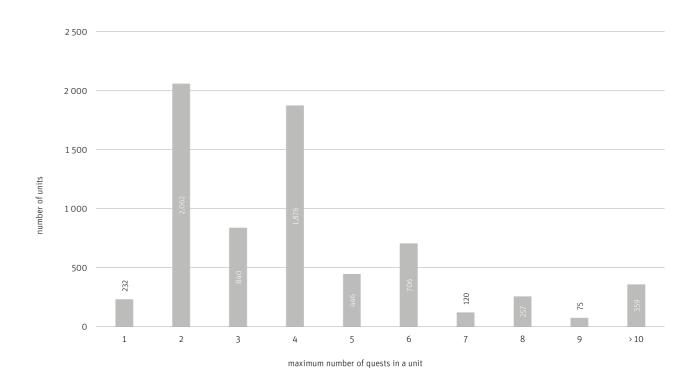
2.1.4.1 Size of entire apartments or houses offered on the Airbnb website as of July 13, 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2.1.4.2 Number of units offered on Airbnb by maximum number of guests as of July 13, 2021

IPR Prague 2020 / data: Inside Airbnb 2021



12 —— 2. Airbnb in Prague —— 13

2.2 Comparison of units in Prague with selected European cities

Compared to the 2018 analysis, the updated document compares Prague with a slightly different set of cities. While some cities remain (Vienna, Berlin, Munich, Copenhagen, Amsterdam, Milan and Barcelona), others are omitted (Bratislava, Budapest, Warsaw, Krakow) and replaced (Paris, London, Lisbon) due to data availability and the use of a different dataset. However, these are still major European cities that have long struggled with the Airbnb issue. The following section provides information on the number of units, the structure of the offer, the activity of units and the number of hosts operating units in the cities.

2.2.1 PRAGUE'S POSITION AMONG SELECTED EUROPEAN CITIES

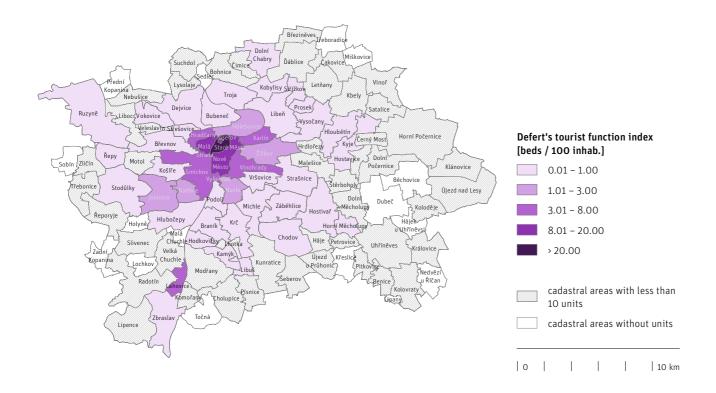
Among the selected cities, Prague ranks second to last in the number of Airbnb units in the city. In terms of absolute numbers of units offered, Prague is comparable to Copenhagen, Vienna or Lisbon, for example (\rightarrow Fig. 2.2.1.1). In absolute terms, the largest number of units were located in London (73K), Paris (51K) and Berlin (19K) as of July 2021. Vienna has almost 3 4 more units in absolute terms (11.6K) and Copenhagen has about 40% more (9.9K). In terms of the structure of units in

the selected cities, Prague ranks higher in the proportion of entire apartments. Paris and Copenhagen have the highest share of entire flats, where these account for more than 80% of the total offer. The share of entire apartments in Prague's offer is comparable to Amsterdam (78%), Lisbon (75%), Vienna or Milan (74%). Barcelona (52%), London (55%) and Berlin (56%) have the lowest proportion of entire apartments on offer. These cities have a higher proportion of private rooms on offer than others (\rightarrow Fig. 2.1.1.1). This higher share may reflect the regulations in place. In Barcelona or Berlin, for example, a rule has been in force for a while that if the owner wants to rent out an apartment, he/she must also live in the same apartment or register his apartment as a tourist unit and obtain a license to operate it (more \rightarrow ch. 4.3).

Given the fact that each city is different in size, it is also useful to look at relative indicators of the size of the offer. When looking at the number of units relative to the population of the city, Prague has a similar number of units as, for example, Vienna, Berlin or London. Thus, among the selected European cities, it ranks among the cities with a lower ratio of units per 1,000 inhabitants. Lisbon and Paris have the most units, with almost 5 times more units offered per capita than Prague. Amsterdam has almost 4 times more and Copenhagen, Milan and Barcelona about twice as many (→ Fig. 2.2.1.2).

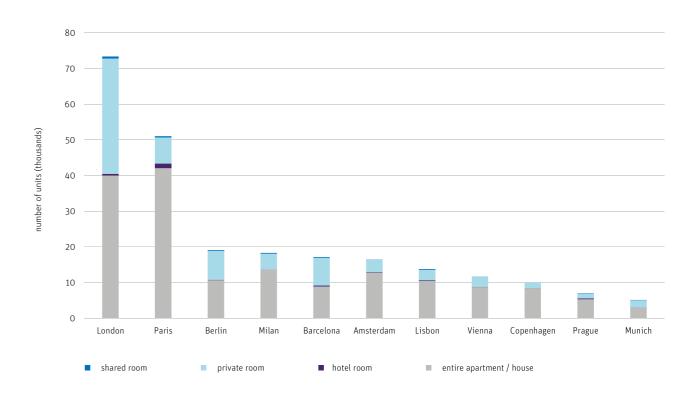
2.1.4.3 Number of beds offed on the Airbnb website as of July 13, 2021

IPR Prague 2021 / data: Inside Airbnb 2021



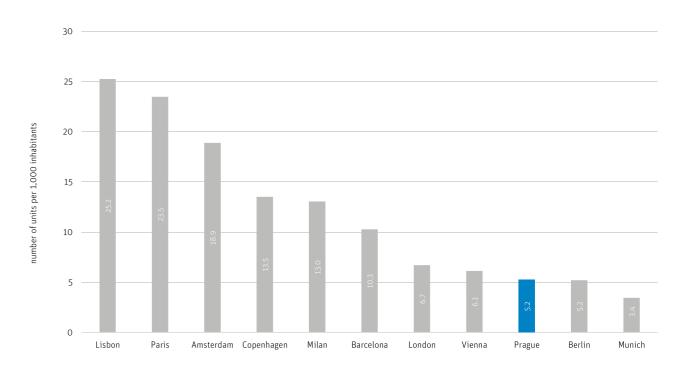
2.2.1.1 Comparison of the structure of type of units offered on Airbnb in selected European cities as of July 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2.2.1.2 Comparison of the number of units offered on Airbnb in selected European cities as of July 2021

IPR Prague 2021 / data: Inside Airbnb 2021, statistical offices of cities 2021, Eurostat 2021



2. Airbnb in Prague — 15

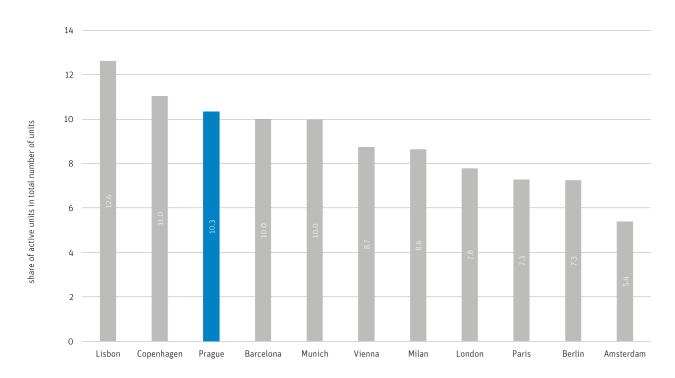
Prague shows a different position when looking at the share of active units to the total number of units offered (\Rightarrow Fig. 2.2.1.3). Prague ranks third among the selected cities after Lisbon and Copenhagen. The activity of Airbnb units in Prague is thus comparable to, for example, Barcelona or Munich, where the share of active units in the total offer is approximately 10%. In contrast, the lowest activity in July 2021 was recorded in Amsterdam (5.4%). Unit activity in London, Paris and Berlin was around 7% in July of that year, while activity in Vienna and Milan was close to 9%. It is therefore evident that the activity of the selected cities is very similar and differs by a maximum of 6%; the measures related to the spread of the Covid-19 pandemic affected the cities under review in a similar magnitude.

Prague also ranks third among the selected cities in the number of hosts per unit $(\rightarrow$ Fig. 2.2.1.4). Lisbon (2.5) has the most units per host, followed by Barcelona (2.11). In Vienna, London or Milan, the average number of units per host is 1.5. By contrast, in Copenhagen or Amsterdam, each host operates an average of 1.2 units. The range is also significant: while in London up to 861 units per host are recorded, in Munich the maximum is 33 and in Amsterdam 50. In Prague, one host offers a maximum of 89 units (more \rightarrow ch. 2.1.3). However, these may be intermediary companies that do not own the units

but only offer and manage them on behalf of the owner (more \rightarrow definition of host, ch. 1.1.4)

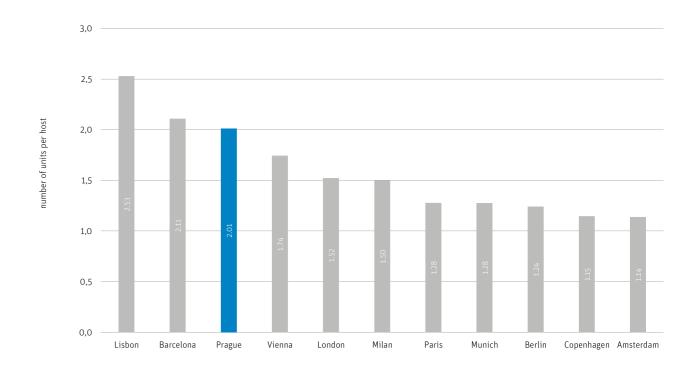
The average price per unit in selected European cities ranges from EUR 157 per night in Amsterdam to EUR 73 per night in Berlin (\rightarrow Fig. 2.2.1.5). Prague ranks fourth among the selected cities with an average price per night of EUR 132. However, the price range is quite wide for individual cities. The median shows the middle value, which is not so much affected by outliers. It is evident that there is a big difference between the average and median price, especially in Prague, where the median is 61 EUR, half the average price. Looking at the middle (median) price, Prague is more comparable to Vienna or Berlin, where the price is between 50 and 60 EUR per night.

2.2.1.3 Share of active units in the total number of units offered on Airbnb in selected European cities as of July 2021 IPR Prague 2021 / data: Inside Airbnb 2021



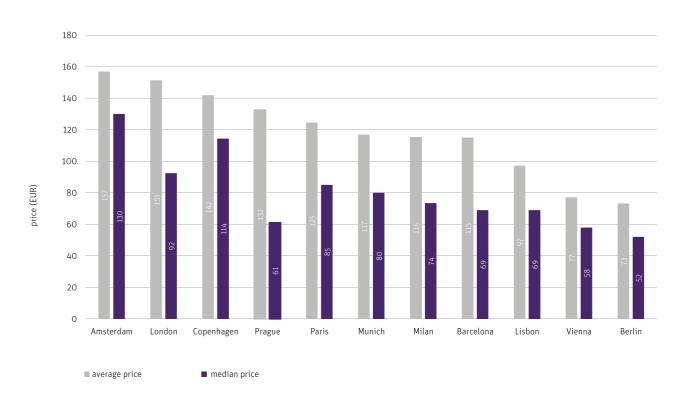
2.2.1.4 Number of units offered on Airbnb per host as of July 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2.2.1.5 Average price per Airbnb unit per night in selected European cities as of July 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2. Airbnb in Prague ———— 17

2.3 The development of Airbnb units in Prague

The following chapter focuses on the development of Airbnb units in Prague. This chapter was not part of the original Airbnb analysis from 2018, as IPR Prague did not have a larger dataset to demonstrate Airbnb's development at that time. Looking at the individual time series, it is necessary to point out several methodological flaws:

- time series are not available for every month, for 2016 and 2017 the dataset is only available for one month of the year (→ Annex P.01 for exact dataset data)
- Airbnb unit data is collected as a "snapshot" at a single point in time; data that is currently booked long-term is not included in the dataset
- units that have been deleted from Airbnb are no longer included in the following datasets, and all attributes associated with them have been removed as well (more → ch. 1.1.2).

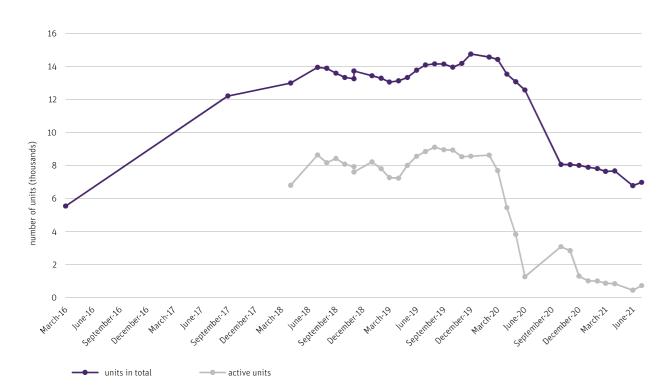
In the following section, the development is examined using the example of the development of the number of units, the cumulative number of reviews and the development of the number of hosts. The time series shows the period from March 2017 to July 2021. The second part compares data from the previous analysis period (2018) with the current situation (July 2021). The year 2019 is added for comparison. This year was chosen as a reference year for the peak in tourism performance in Prague, and thus also for the peak in Airbnb performance (\rightarrow ch. 2.3.1). July was chosen as the reference month; this month is available for all three years studied (\rightarrow ch. 2.3.2).

2.3.1 THE DEVELOPMENT OF UNITS SINCE 2016

The number of units offered on Airbnb in Prague from March 2016 until the end of 2019 has increased significantly. A fairly rapid decline in these units is evident from March 2020 onward. Currently, the number of units offered on Airbnb is only slightly higher than it was in 2016 (\rightarrow Fig. 2.3.1.1). This is due to the overall decline in tourism in Prague, coupled with restrictions on travel, movement and business during the Covid-19 pandemic. There is a slight increase in the number of units in the last month, but the time series ends on 13.7.2021. Similarly, the numbers of units offered follow the same curve as the numbers of active units. Unit activity is influenced, among other things, by the seasonality of tourism in Prague. While in July 2019 there were 8,845 active units in

2.3.1.1 Number of units offered on Airbnb and their activity between March 2016 and July 2021

IPR Prague 2021 / data: Inside Airbnb 2021



Prague, in July 2021 there were only 720 units. At the same time in 2019, a total of 14,077 units were listed on Airbnb, while in July 2021, only 6,972 units were listed, less than half as many. Going forward, however, we can expect to see a resurgence of Airbnb units, possibly beyond the peak year so far in 2019.

The trend in the cumulative number of reviews shows that the popularity of accommodation in Airbnb units has been increasing over the long term. The number of reviews rose steeply until February 2020 (\rightarrow Fig. 2.3.1.2), followed by a decline that continues until May 2021. The decline is mainly related to the overall decrease in the number of units (compare with \rightarrow Fig. 2.3.1.1). This also shows the trend in the number of reviews per unit, which has been increasing over the last year and a half. It is those units with higher review counts in previous years (2019 and earlier) that remain on offer on Airbnb. So there has probably been a reshuffling of units, with some of the lesser-used ones in particular ceasing their activity on Airbnb altogether.

The trend in the number of hosts is similar $(\rightarrow$ Fig. 2.3.1.3). A more significant increase in the number of hosts can be observed until July 2018, after which it tends to stagnate. Larger fluctuations again follow changes in the number of units offered (compare with \rightarrow Fig. 2.3.1.1). From March 2020,

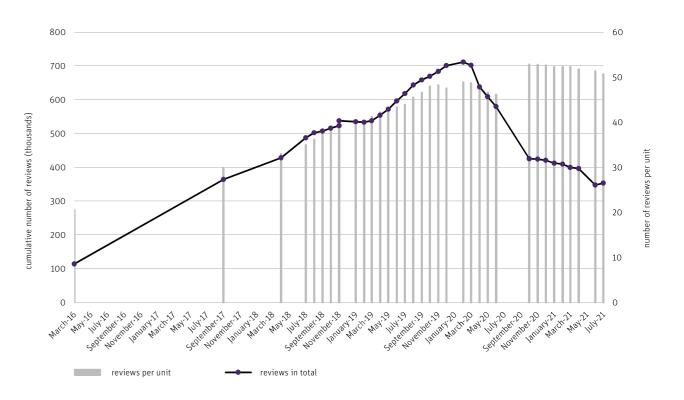
the total number of hosts starts to decrease with the number of units. However, the average number of units per host, especially from July 2020, is increasing slightly. While in mid-2020 the average number of units offered was 1.75 units per host, by mid-2021 it was already 2.01 units. It can be assumed that the primary units that were terminated were those that were not offered by professional hosts. Overall, the number of "single" hosts has decreased in favor of "multihosts".

2.3.2 COMPARISON OF THE NUMBER OF UNITS IN 2018, 2019 AND 2021

In 2018 and 2019, the total number of units in Prague increased by approximately 1%, i.e., 140 units offered on Airbnb (→ Fig. 2.3.2.1). The number of units increased in some parts of the historic city center, especially in Nové Město (+89 units) and Malá Strana (+28) and parts of the inner city (Smíchov +53, Žižkov +52, Vinohrady +51 or Karlín +18). On the other hand, the number of units in Staré Město decreased by 18, and in Josefov by 7 units. Nusle recorded the largest decrease in the period (-75 units). In the peripheral areas, changes were more moderate, with both decreases and increases, but mostly within 5 units in the area.

2.3.1.2 Cumulative number of reviews for units offered on Airbnb between March 2016 and July 2021

IPR Prague 2021 / data: Inside Airbnb 2021



2. Airbnb in Prague — 19

Between 2019 and 2021, on the other hand, the number of units offered on Airbnb decreased significantly (→ Fig. 2.3.2.2). Overall, the offer decreased by more than one half: by 7,105 units. Almost all cadastral areas recorded a decrease. Major changes occurred mainly in the historic center and the inner city. The number of units offered decreased the most in Nové Město (-1 137), Vinohrady (-1 035), Žižkov (-837), Staré Město (-502), Smíchov (-468) and Holešovice (-402). The offer also dropped by more than 100 units in Vršovice, Karlín, Malá Strana, Bubenec, Libeň, Nusle, Břevnov and Dejvice. With a few exceptions, the offer in the outlying areas has stagnated.

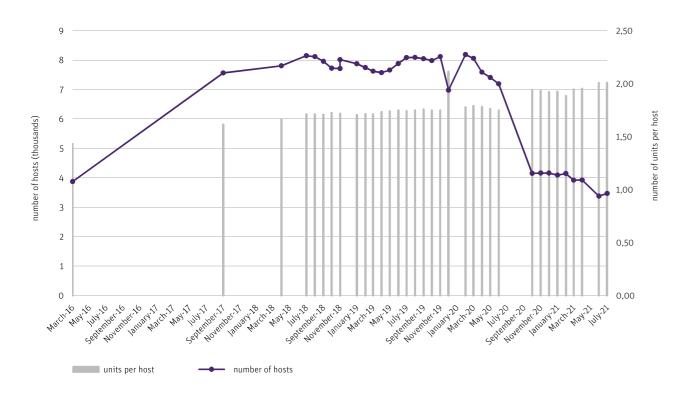
Unit activity during 2018, 2019 and 2021 followed the curve of the total number of units offered. In July 2018, 62% of the total number of units offered (8,634) were active. In the same month of 2019, the figure was 63% (8,845 units). Conversely, in 2021, this activity dropped to 10% (720 units) in the same month. The largest increases in activity in July 2019 occurred in Nové Město (+207 units), Žižkov (+44), Malá Strana (+40), Staré Město (+39) and Smichov (+37). On the other hand, the largest decreases in active units in July 2019 were recorded in Nusle (-54), Vršovice (-29) and Holešovice (-23). In 2021, the number of active units in the whole territory of Prague decreased by more than 8K. The largest decrease in the number of active units was in Nové

Město (-1 837), Vinohrady (-1 016), Žižkov (-926), Staré Město (-866) and Smíchov (-518).

In July 2018, the number of entire apartments totaled 10,889 Airbnb units in Prague. In the same month of 2019, this number rose to 11,054 apartments, and in July 2021, on the contrary, it fell to 5,273 apartments, i.e. by almost 1/2. The largest number of entire apartments has long been offered in Nové Město, where there were 2,248 apartments in 2018, 97 more in 2019, and the total number fell to 1,315 in July 2021. More than 1,000 apartments were also located in Vinohrady, Staré Město and Žižkov in 2018. In Staré Město, the number of entire apartments already decreased slightly in 2019 (by 24 dwellings) and this trend continued in 2021 (-776). On the other hand, in Žižkov, the number of entire apartments increased by almost 70 units in 2019 and decreased by more than 650 units in 2021 (compared to 2019). The number of entire apartments decreased in 2021 in all cadastral areas of Prague.

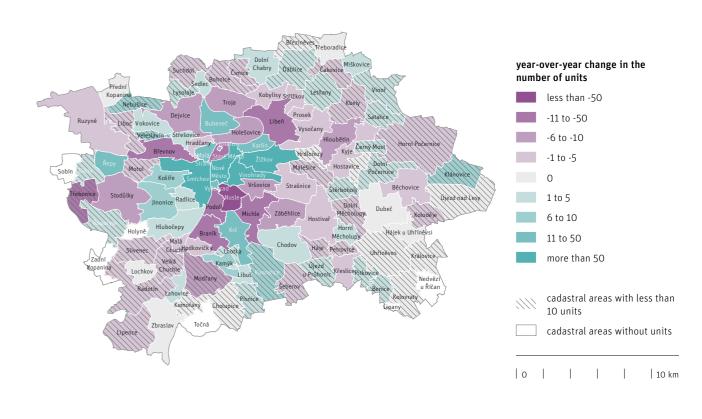
2.3.1.3 Number of hosts providing units offered on Airbnb between March 2016 and July 2021

IPR Prague 2021 / data: Inside Airbnb 2021



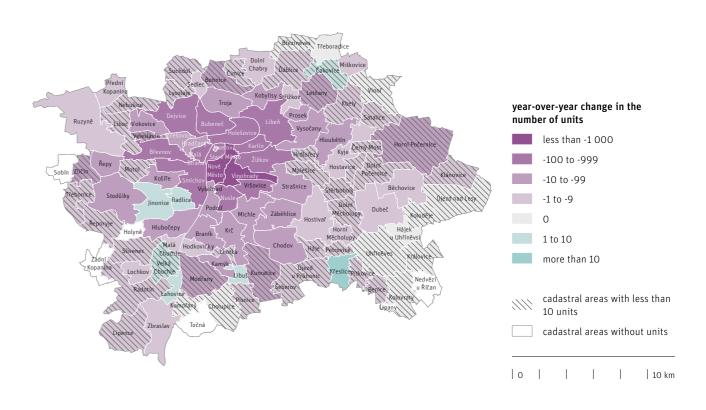
2.3.2.1 Change in the number of units offered on the Airbnb website between July 31, 2018 and July 27, 2019

IPR Prague 2021 / data: Inside Airbnb 2021



2.3.2.2 Change in the number of units offered on the Airbnb website between July 27, 2019 and July 13, 2021

IPR Prague 2021 / data: Inside Airbnb 2021



3. EVALUATION OF IMPACTS AND CHANGES

3.1 The housing market

The following part of the document updates the part of the analysis related to the housing market. This chapter deals with the relationship between Airbnb and Prague's housing stock. Furthermore, it deals with the relationship between short-term rentals through the Airbnb platform and the long-term renting of apartments on the Prague market. For the first part, the data on Airbnb units is compared to the total number of apartments in Prague. The second part of the chapter compares the offer of apartments and houses on Airbnb with that of apartments and houses for long-term rent on Sreality [2021]. Once again, this comparison is updated from the 2018 analysis. Data on house and apartment long-term rentals was obtained from publicly-available data on the Sreality website⁶.

6 — IPR Prague monitors the long-term development of the number of apartments and houses for rent and for sale on Sreality. These are status data for a specific day of the month. This data is collected 3 times a month.

3.1.1 AIRBNB'S OFFER IN RELATION TO THE TOTAL HOUSING STOCK

The total share of Airbnb apartments and houses in Prague's housing stock has decreased significantly compared to 2018. While in 2018 Airbnb's offer accounted for 1.4% of the total housing stock, in 2019 it was 1.6% and in 2020 the share dropped back to 1.4%. In 2021, this value further declined to 0.7% of the Prague housing stock. This is due to the situation related to the Covid-19 pandemic and the travel restrictions associated with it. The short-term private accommodation sector has also seen a significant decline, especially among foreign visitors, who have long been the main clientele of Airbnb units. A large number of apartments/houses remained unused and almost half of them were removed from Airbnb's offer completely (→ ch. 2.2.2).

Although the values in individual cadastral areas do not reach the values of 2018 (and especially 2019), there is still a significantly higher share of entire apartments offered on Airbnb in the housing stock in the central parts of Prague. The highest share in July 2021 was in the cadastral area of Staré Město (14.5%), followed by Josefov (9%), Nové Město (8.5%) and Malá Strana (5.6%). More than 1% of the housing stock is occupied by Airbnb apartments in Karlín (2.3%), Hradčany (1.9%), Vinohrady (1.9%), Smíchov (1.8%), Vyšehrad

(1.4%) and Žižkov (1.4%). Slight anomalies can be seen in Třebonice, Lahovice and Benice, but overall this is only a small number of apartments (\Rightarrow Fig. 3.1.1.1).

3.1.2 AIRBNB'S OFFER OF APARTMENTS FOR LONG-TERM RENT

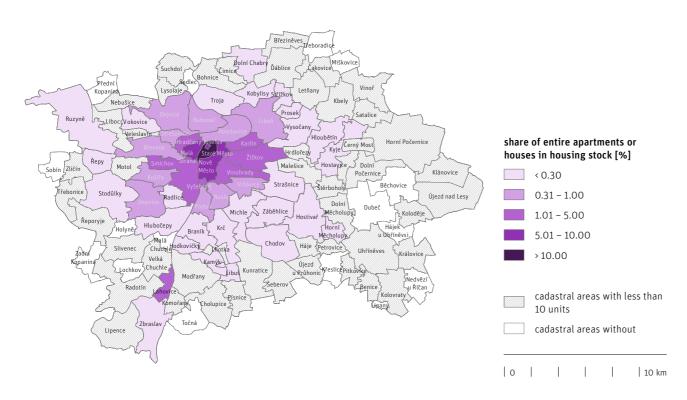
The offer of apartments for long-term rent was higher overall in July 2021 than it was in 2018. Compared to 2018, the ratio between apartments and houses offered on Sreality and Airbnb is also significantly different (see [Marianovská & Němec, 2018]). While in 2018 the offer of apartments and houses on Airbnb exceeded that of apartments and houses for rent on Sreality by more than half, in July 2021 the number of listings on Sreality is more than 40% higher than the offer of Airbnb (→ Fig. 3.1.2.1). The offer of apartments and houses on the Bezrealitky website [2021] represents approximately 30% of Airbnb's offer over the same period. Overall, it can be assumed that some of the apartments originally offered on Airbnb have been moved to the long-term accommodation sector.

This assumption can be even better demonstrated by the development of the number of offered rentals of apartments and houses on Sreality compared to the number of offered units on Airbnb (→ Fig. 3.1.2.2). In the period from September

2017 to December 2019, the offer of apartments for long-term rent on Sreality basically follows the line of development of the number of apartments on Airbnb, so they are probably two sets of separate offers of apartments in Prague. From January 2020 there is a steep increase in the number of rentals offered on Sreality. At the same time, from March 2020 onwards, there is a rapid decline in the number of units offered on Airbnb. In August 2020, the offer of long-term rentals surpassed the offer of short-term Airbnb apartments and continued to grow until the end of 2020. In contrast, Airbnb listings continued to decline as occupancy rates hovered around 10% (\rightarrow ch. 2.3.1). **From** this trend, it can be assumed that some of the apartments previously offered for short-term rentals on Airbnb were moved to long-term rentals in 2020. From approximately May 2021 onwards, we can see a gradual decrease in the number of apartments and houses for rent on Sreality. This, together with a slight increase in Airbnb units, may indicate a recovery of the short-term rental market in Prague in the future and a return to growth.

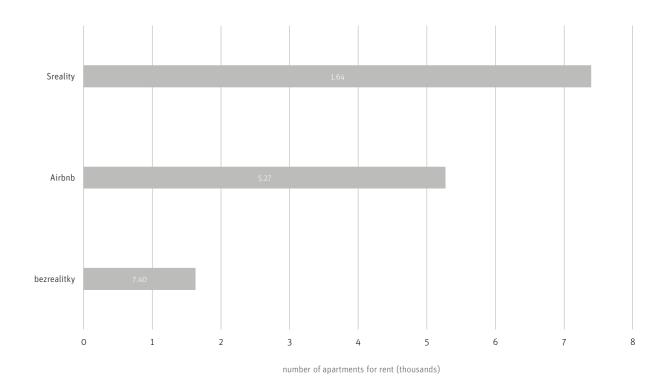
3.1.1.1 Share of entire apartments or houses offered on the Airbnb website in the total housing stock as of July 13, 2021 by cadastral areas

IPR Praha 2021 / data: Inside Airbnb 2021, RUIAN 2021



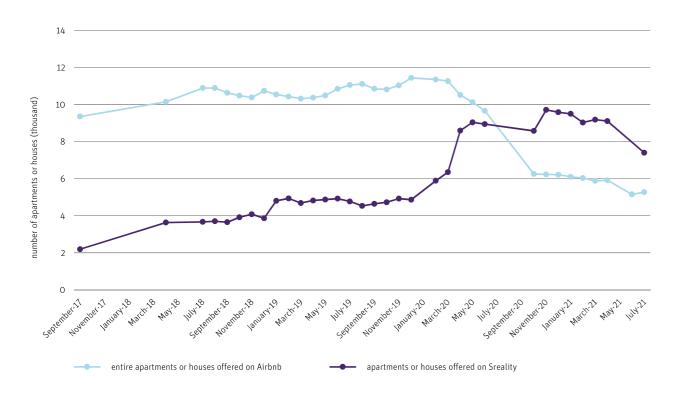
3.1.2.1 Number of offers of apartments (including family houses) for rent in Prague as of July 2021

IPR Prague 2021 / data: Inside Airbnb 2021, Sreality 2021, Bezrealitky 2021



3. Evaluation of impacts and changes ——— 23

3.1.2.2 Number of apartment listings (including houses) on Sreality and Airbnb from September 2017 to July 2021 IPR Prague 2021 / data: Inside Airbnb 2021, Sreality 2021



4. APPROACHES TO THE REGULATION OF SHORT-TERM PRIVATE ACCOMMODATION AND THEIR DEVELOPMENT

Why regulate?

There are several reasons why it is important to address regulatory measures aimed at the activities of online accommodation platforms (i.e. the provision of short-term accommodation in flats and family houses). These reasons are primarily related to the problems encountered and the negative impacts associated with these activities, even though many of them were eliminated during the coronavirus pandemic due to the decline in tourism.

Taking into account the existing experience in Prague, the negative impacts of "short-term rentals can be divided mainly into the following areas:

- Decrease in the quality of life of residents and a change in the character of residential zones (especially noticeable in central and popular tourist areas of the city)
- Decrease in housing affordability (higher market rents due to lower offer of flats for classic long-term rent)
- Gray (informal) economy (unregistered business activity and non-enforcement of legal and tax obligations related to the failure to provide information on accommodation providers)
- Unequal business conditions (in relation to traditional accommodation operators)
- Safety risk (lack of overview of the persons accommodated especially high risk in the pandemic period, but also non-compliance with fire and other regulations related to accommodation services)

4.1 Development of the approach in the Czech Republic

On the national level, the Ministry of Regional Development (MMR CR), which is responsible for, among other things, housing, tourism and spatial planning policies, can be considered the most relevant entity within the state administration in relation to the topic of collaborative or sharing economy. However, the Ministry of Industry and Trade (MPO) is also close to the topic of the collaborative/ sharing economy and the topic is also quite intensively addressed by the Office of the Government of the Czech Republic, which in broader cooperation in 2017 developed

the Analysis of the Sharing Economy and Digital Platforms [Úřad vlády České republiky, 06/2017]. This analysis was undertaken as a basis for a substantive debate on the adoption of a proposal for specific regulatory anchoring in the area of the sharing economy, and the analysis generated a number of recommendations to this end.

In the context of Prague and the issue at hand, the most significant activities in the current electoral period are those initiated by Prague Councilor for Legislation, Public Administration and Housing Support, JUDr. Hana Kordova Marvanová. She submitted to the Prague City Council and the Municipal Board some specific proposals for legislative changes (→ ch. 4.1.1 and ch. 4.1.2), which have already been or are yet to be submitted for consideration to the Chamber of Deputies of the Parliament of the Czech Republic.

An overview of recently approved and initiated legislative changes that are closely related to the issue of online accommodation platforms is presented below.

4.1.1 APPROVED LEGISLATIVE CHANGES

Obligation to pay a sojourn tax for all short-term accommodation providers

On 1 January 2020, an amendment to the Local Fees Act (Act No. 565/1990 Coll.) came into force, one of the main objectives of which was to level the playing field for all shortterm accommodation providers and at the same time to ensure that municipalities and cities receive revenues more in line with the costs associated with short-term stays of tourists and visitors. The amendment substituted the previous fees for spa or recreational stays with a local "sojourn" fee, which can be collected by all municipalities and is imposed on any short-term stay of up to 60 days, regardless of the place and purpose of the stay. The obligation to pay this fee has thus been extended to providers who offer short-term accommodation in their own apartments or houses via online platforms (Airbnb. etc.). It is therefore irrelevant whether or not the place of accommodation is approved as an accommodation facility. At the same time, the amendment also allowed for an increase in the fee. As of 1 January 2021, the new maximum possible rate of the local sojourn fee will be CZK 50 per person per day (in 2020, the maximum rate was CZK 21).

Obligation for online accommodation platforms to share information with authorities

In April 2020, an amendment to the Act on Certain Conditions of Business Activities in the Field of Tourism (Act No. 159/1999 Coll.) was adopted, which gives trade licensing offices the power to require operators of digital accommodation platforms to provide information on persons who conduct their business activities on them. Specifically, platform operators must provide information on the accommodation provider, the number of contracts concluded for tourism services, the total price for these services, as well as the address

of the apartment upon request from the municipal trade licensing office. Trade licensing offices may also provide the information obtained to other authorities exercising public power. Unfortunately, current practice after the adoption of the amendment has shown that despite the legal obligation and after the trade licensing offices sent requests for data, providers of online accommodation platforms refuse to provide identification data on accommodation providers and the scope of their activities. Even the threat of a maximum fine of CZK 1 million did not aid in the enforcement of this law (in fact, from the perspective of foreign platforms such as Airbnb or Booking.com, this is a completely negligible amount).

4.1.2 INITIATED LEGISLATIVE CHANGES

Introduction of powers for municipalities to regulate the short-term provision of accommodation outside accommodation facilities

The City of Prague used its legislative initiative and in July 2020 submitted to the Chamber of Deputies of the Parliament of the Czech Republic a draft amendment to the Trade Licensing Act (Act No. 455/1991 Coll., Parliamentary Document No. 946) that would authorize municipalities to enact decrees regulating accommodation services provided outside of traditional accommodation facilities. The municipality could, for example, determine within its territory how long accommodation can be provided for in apartment buildings or family houses, it could limit the number of overnight stays per calendar year or set a maximum number of persons accommodated, etc. The City of Prague initiated this amendment in view of the rapid development of accommodation in apartments and houses mediated through an online accommodation platform. The date of the possible adoption of this draft amendment to the Trade Licensing Act is highly uncertain and probably distant, given that the item was not discussed prior to the elections in October 2021 and will therefore be discussed by the newly formed Chamber of Deputies.

Act on the conditions for providing shared accommodation remotely via digital platforms

In 2020, several members of the Chamber of Deputies submitted a **proposal to issue a completely new act** on the conditions for providing shared accommodation remotely via digital platforms (Parliamentary Document No. 1007). Within its 13 sections, the newly-proposed act defines the obligations of the accommodation provider and the accommodated person, the essential elements of the shared accommodation contract, the rights and obligations of the contracting parties and their notification obligations, introduces the rules of shared accommodation and also gives municipalities, as well as other owners of apartments in the building, specific rights and protection. The proposal also failed to be passed in the Chamber of Deputies before the parliamentary elections (October 2021).

Prohibition of the provision of accommodation services within the competence of the unit owners association (UOA)

In September 2020, the Councilor of the City of Prague for Legislation, Public Administration and Housing Support presented a new draft amendment to the Civil Code [Magistrát hl. m. Prahy, 2020]. It would allow housing owner associations (HOAs) to restrict or prohibit members from using apartments for short-term accommodation of tourists and others in their statutes. HOAs currently do not have this option. The aim of the draft amendment, which is not yet in the legislative process and will probably be submitted to the newly-formed Chamber of Deputies of the Parliament of the Czech Republic, is to improve the living conditions of owners of apartments and residents of apartment buildings who are burdened with worsened living conditions or increased costs as a result of the provision of accommodation services within their apartment building.

A change in building regulations leading to a ban on the provision of accommodation services in premises intended for permanent housing

The Building Act requires that every building be used in accordance with the way it was approved or permitted if approval is not required. In relation to the issue of the provision of accommodation services through online platforms, one way to regulate them is to change the building regulations so that the permanent use of an apartment for the provision of short-term accommodation services requires its re-approval. This means that an apartment used in this way would have to meet completely different conditions than apartments used for permanent housing. However, legal interpretations vary on this issue and it is therefore only one approach to regulating short-term accommodation currently under consideration, and this option will be further explored and analyzed [Prokeš, a další, 2021].

On 29.6.2021, the Building Code Department of the Prague City Hall issued an opinion regarding the use of an apartment in Růžová Street in violation of the approval decision that a change of use occurred because housing and accommodation represent different uses. The change of use of the apartment to short-term accommodation must therefore be approved by the building authority. This initiative was submitted to the Prague 1 building authority by the local unit owner association. Upon inspection, the building authority invited the owner to stop the unauthorized use of the apartment unit. After the expiration of the deadline, the building authority then initiated proceedings for an offense under the Building Act, against which the owner of the apartment appealed to a higher authority (1, 2021).

4.2 Development of the approach on the European Union level

For quite a long time, the European Union has resisted issuing a single directive aimed at regulating the activities of online platforms operating in the field of accommodation services. This was based on the perspective that the main initiative in this area should be taken by individual Member States. However, the European Commission has paid considerable attention to the phenomenon of the sharing or collaborative economy and in recent years has produced several studies or documents on the subject, including basic principles and recommendations for Member States. However, the European Commission is also aiming to reflect the rapid development of the digital world in the legislative field⁷.

In relation to the topic at hand, the expected adoption of EU-wide rules contained in the **Digital Services Act** (DSA) can be considered an important step [European Commission]. The DSA represents the legislative proposal that the European Commission submitted to the European Parliament and the European Council in December 2020 (COM(2020) 825 final). The DSA focuses on the regulation of digital services of all kinds and primarily protects recipients of the service from illegal content, violations of their consumer rights and other risks. The DSA therefore also applies to online platforms, including those that provide accommodation services. Following the adoption of the DSA, a number of new obligations will apply to platforms, with more of them falling on large and very large online platforms compared to smaller ones. Among other things, the DSA should contribute to better cooperation between digital platforms and local governments. The overview of the new obligations⁸ shows that, for example, only very large platforms will be obliged to share data with the authorities, and it can be assumed that the largest ones in the accommodation sector, such as Airbnb or Booking.com, could be included in this category. On the other hand, it is not entirely clear whether these largest platforms will be obliged to provide data in disaggregated form, which is crucial for the authorities overseeing the compliance of accommodation providers.

The 2020 decision of the CJEU, which considered the case of two French landlords who were fined by the Paris City Hall for providing apartments via Airbnb without its permission, is also important. The Court examined whether this system applied by the French capital was contrary to the freedom to provide services guaranteed by European law. However, in its judgment, the CJEU prioritized the public interest, which in the present case, according to its reasoning, is the lack of available housing for permanent housing, and the final verdict therefore makes it clear that the procedure of the City of Paris was legitimate and that the provision of

accommodation services in apartments can therefore be made subject to the approval of local authorities.

4.3 Examples of approaches on the EU city level

As an example of approaches to regulating Airbnb, four European cities were selected where Airbnb has been a long-standing concern for public authorities. All of the cities were the subject of examples in the 2018 analysis – Amsterdam, Barcelona and Paris. In addition, the example of Vienna is included in this update, while the example of national regulation in Greece has been omitted. $\underline{In} \rightarrow Annex\ P.02$ there is also a clear table comparing the basic regulation parameters. It is evident, for example, that the requirement to register a unit is already fairly standard in other European cities, although approaches and scope vary from city to city [Colomb, a další, 2021].

4.3.1 AMSTERDAM

In Amsterdam, property owners (or persons who have permission from the owner) can provide apartments, houses or houseboats for short-term accommodation purposes for a maximum of 30 days per year, and each host must be registered with the National Tourist Rental Registration System since April 2021. The host must also be registered by the City of Amsterdam as a resident of the address. The maximum number of guests for all property types is max. four people. Permits for the professional short-term provision of houses/apartments not primarily used by the owner for residential purposes have not been issued since 2014, except for new development in zones where the zoning plan permits it to some extent. In addition, from 2021, there are also clear rules for the provision of shortterm shared accommodation in shared apartments/houses/ houseboats, where a maximum rentable area is established or a condition is set that the shared accommodation in a given flat must not have its own entrance, bathroom or kitchen. At the same time, registration is required and the same conditions⁹ as for other short-term tourist accommodation providers apply.

Since the start of 2021, all hosts must also obtain a permit for a property used to provide short-term accommodation, with individual boroughs having a limited number of such permits [DuchtNews, 2020]. In 2020, Amsterdam completely banned the provision of short-term accommodation in 3 districts of the historic center of Amsterdam's city center, but this regulation was overturned by the municipal court in 2021. All districts now operate on the same principle of issuing a limited number of permits.

The obligation to have a permit for any property provided for short-term accommodation stems from a decision of the State Council ("Raad van Stare"), which ruled in 2020 that it is illegal to rent out property to tourists without a permit, as property

9 — For example, compliance with fire standards

^{7 ———} See more at https://ec.europa.eu/growth/single-market/services/collaborative-economy.en

^{8 —} See more at https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment on

owners effectively remove the property from the national housing stock [Lomas, 2021].

Amsterdam previously (between 2016-2019, when short-term rentals of up to 60 days per year were allowed) had an agreement with Airbnb to provide information about hosts and the duration of accommodation services. This agreement expired at the time of the reduction of the maximum period to 30 days per year and also following the statement of the Court of Justice of the European Union in 2019, which ruled that Airbnb is only an online information platform and not a real estate intermediary and therefore does not have to comply with the legal conditions of real estate companies [Lomas, 2019].

4.3.2 PARIS

In 2016, Paris concluded an agreement between the city and Airbnb, whereby Airbnb informed hosts that the duration of short-term accommodation cannot exceed 120 days in any one year. The maximum period of time that one person can stay is 90 days. Businesses wishing to provide their property for an extended period of time must obtain permission from the city authorities and reclassify the property as an official "tourist accommodation". Unfortunately, a large number of hosts and property owners exceed this time without any permission. As of 2019, Airbnb officially blocks listings offering accommodation for more than 120 days a year for hosts in four arrondissements of Paris, but also allows hosts to apply for an exemption, which is then automatically approved [Rivera, 2021].

In 2019, the French Association of the Professional Tourism and Accommodation Industry (AHTOP) applied to the Court of Justice of the European Union to have the Airbnb platform recognized as a real estate intermediary and thus be forced to comply with the legislative requirements resulting from this status. However, the Court declared that Airbnb is merely an information platform that connects potential guests with hosts and that it has no control over the provision of the services in question, so it cannot be considered a real estate intermediary [Lomas, 2019].

At the same time, Paris has long been planning a referendum [Cosnard, 2020] to reduce the maximum duration of short-term accommodation to 60 or even to a max. of 30 days. While the referendum results would not have legal force, as it is not within the power of the City Council to reduce the time period, the City of Paris plans to use the referendum results as a basis for negotiations on the state level. The referendum has been postponed indefinitely for the time being due to the coronavirus crisis.

4.3.3 BARCELONA

Barcelona is one of the pioneering cities in the regulation of short-term accommodation. Since 2012, the rule in the Catalan capital has been that a host can only rent out a maximum of two rooms and must share the apartment with guests.

The maximum rental period cannot exceed 31 days and the room cannot be available for rent for more than 4 months in a year, which cannot be consecutive. Landlords who are compulsorily registered as traders must pay regular income tax, VAT and tourist taxes in relation to short-term rentals. If the property owner wants to provide accommodation for the whole apartment (or house), they must register with the Catalan Tourism Register and obtain a special license for their property. However, this has not been granted for the central part of Barcelona since 2015. One of the conditions for the granting of a license is that the property must meet specified safety requirements and minimum quality parameters [Keycafe, 2021].

In August 2020, the City of Barcelona declared a moratorium on the rental of tourist rooms. It is currently not even possible to get permission to provide spare rooms in your own flat, and planning decisions have been suspended for works in apartments to adapt them for room sharing. The moratorium was intended to give the city enough time to develop new regulations – the so-called PEUAT ("Special Urban Accommodation Plan for Tourists" [Ajuntament de Barcelona, 2021]). In January 2021, the Steering Committee approved changes to the PEAUT to bring it into alignment with the current regulatory framework and needs and referred this proposal for public comment. The proposal includes a complete ban on the provision of spare rooms for less than 31 days (renting a room for a longer period would be permitted via an exception for students or temporary/seasonal workers and temporary staff). Final approval was originally scheduled for the July 2021 City Council meeting, but no final decision has been made. The moratorium was originally announced as a one-year moratorium, with the understanding that if the new regulations were not approved in time, it would be extended for another year or until the new regulations were finally approved and came into force – i.e., the moratorium is currently still in place.

4.3.4 VIENNA

In 2018, Vienna agreed to ban regular short-term commercial accommodation in residential zones in the city center (mainly the "Ringstraße" area). The zones are precisely marked in the city's zoning and development plan. This prohibition does not apply to people who occasionally provide their own living space for short-term accommodation in order to ,make some extra money', provided that their own residential use is predominant and the living space is therefore not withdrawn from the housing market. Exceptions may only be approved where the purely non-rental living areas of the apartment building occupy more than 80% of the floor area (excluding the first floor). At the same time, according to a 2014 Supreme Court decision, an apartment can only be used for short-term tourist accommodation if the unanimous consent of the entire homeowners' association has been obtained [Stadt Wien, 20211.

Austria also managed to reach an agreement with Airbnb [Österreichs digitales Amt, 2021], which has agreed that from 1.1.2021 it shall provide the Ministry of Finance with

information on the income of individuals in the previous tax year (identity of hosts, address, number of nights booked during the previous year, etc.).

5. CONCLUSION

The update of the analysis of **The Airbnb** phenomenon and its impact in the context of the City of Prague [Marianovská & Němec, 2018] was carried out during a period of waning pandemic measures, i.e., at a time when travel and tourism restrictions in general were still affecting tourism performance and visitor numbers in Prague. However, despite this specific limitation, the analysis shows interesting results. In addition, the analysis included data on the development of Airbnb in Prague and some other data analyses, such as unit activity, which was not included in the 2018 analysis.

The first significant finding is the overall decline in the number of units offered on Airbnb in the Prague area and the associated decline in activity. As of 2018 (or 2019), the number of units offered in Prague has decreased by more than 50% and activity has dropped to 10%. However, there is still a strong concentration in the historical part of Prague and its surroundings, where both the performance and the total numbers are significantly higher than in other parts of Prague.

In terms of the commercial potential of Airbnb units in Prague, the share of entire apartments/houses in the total offer is particularly significant, accounting for just under 76%. In addition, private and shared rooms are often part of a hostel, hotel, aparthotel, etc. There is also a high proportion of hosts who rent more than one unit on Airbnb in Prague. Hosts with more than 10 units are mainly concentrated in the area of the historical center of Prague and the inner city.

The number of offers and their occupancy in Prague increased significantly until the end of 2019. During 2020, the effects of the measures taken to counter the spread of the

Covid-19 pandemic slowly began to be felt and the number of units gradually decreased. However, it is evident that the number of units with lower previous activity and from non-professional hosts is declining.

Compared to other European cities, Prague ranks among those with a smaller total number of units but a higher commercial focus. While it ranks last between Vienna and Berlin in the number of units per inhabitant, it ranks first in the ratio of the number of entire apartments to the total offer or in the average number of units per host. The price of units per night is also quite interesting, with Prague representing the city with the largest difference between the average price and the median value.

The share of the housing stock has also declined significantly since 2018. While in 2018 apartments or houses offered on Airbnb accounted for 1.4% of the total housing stock, in July 2021 it was only 0.7%. However, concentration in the central parts of the city is still significant and in the cadastral areas of Staré Město, Nové Město and Josefov, the values range from 8 to almost 15%. Since the beginning of 2020, there has been a noticeable increase in the number of apartments for long-term rent on Sreality, which outweighed the offer of apartments on Airbnb by almost 40 units compared to 2018.

As the offer of Airbnb units has evolved and its share of the housing stock and tourism offer grew (especially by the end of 2019), there were efforts to regulate the negative impacts of this development. These included in particular 5 key areas: (1) gray (informal) economy, (2) uneven business conditions, (3) reduced quality of life for residents in

the vicinity of rental housing, (4) reduced housing affordability, and (5) safety risks.

There has also been long-standing pressure from individual cities on the European Union level to adopt common legislation. One important adjustment should be the adoption of EU-wide rules contained in the **Digital Services Act**. Similarly, individual cities are trying to regulate Airbnb and other similar platforms. This includes the need to register units offered as short-term accommodation, restrictions on the maximum period per year that units can be offered, and efforts to ensure that individual platforms share their data on units offered with local authorities. Most of the regulations apply directly to the owners of the units in question, while digital platforms offering accommodation on their websites are usually seen as intermediaries that should help to comply with the regulations (e.g., by sharing data and information and making it clearly visible on their websites).

THE STRUCTURE AND DEVELOPMENT OF AIRBNB IN PRAGUE

- In July 2021, there were just under 7,000 units with more than 18,500 beds available on Airbnb. Of these units, approximately 10% were active in the last 3 months. The offered units were operated in Prague by almost 3.5 thousand hosts. On average, one host in Prague operates approximately 2 units.
- Almost 76% of Airbnb listings are entire apartments or houses, which have an average of 2.8 beds.

 Private rooms and shared rooms together represent about 10% of the total offer, but these rooms are often part of different types of tourist accommodation such as hostels, hotels, bed & breakfasts, etc.
- Airbnb units in Prague are mainly concentrated in and around the historic center. The busiest cadastral areas are Staré Město, Nové Město, Malá Strana and Josefov. In the inner city area, there is also a higher number of units in Vinohrady, Žižkov, Smíchov, Holešovice and Karlín. These neighborhoods also have the highest number of active units, entire apartments, and hosts operating 10 or more units.
- Most units offered have 1 or 2 bedrooms and accommodate a maximum of 2 or 4 guests. Entire

apartments are mostly studios, with 1 or 2 bedrooms. 54% of all apartments accommodate a maximum of 2 or 4 guests. But there are also over 1 thousand apartments that can accommodate 6, 8 or 10 or more guests. On average, units offered in Prague have 2.7 beds.

- Prague has a similar absolute number of units offered on Airbnb as Copenhagen or Munich. In terms of population, however, Prague ranks lower, similarly to Vienna and Berlin. Among the cities surveyed, Prague stands out especially in the ratio of entire apartments and the average number of units per host. That is, in the commercial use indicator. The average price of accommodation per night is also higher, but when looking at the median price, Prague ranks lower among the selected cities along with Vienna and Berlin.
- Since March 2016, the number of units offered on Airbnb increased significantly until the end of 2019, which is the peak year for units offered so far. From approximately March 2020, Airbnb experienced a steep decline in offers until June 2021. There were approximately ½ fewer units offered in July 2021 than in December 2019.
- A similar trend as the number of units offered is also evident for reviews representing stays in units and for the number of hosts. These two time series also point to the fact that the units that remain on Airbnb are mainly those that are more visited and are run by more "experienced" hosts.
- In contrast, the number of units increased between 2018 and 2019, especially in the central parts of the city. Between 2019 and 2021, there are significant declines throughout almost the whole of Prague. The largest declines were recorded in Nové Město, Vinohrady and Žižkov.
- There was also a significant decline in overall unit activity. While 62% of units were active in July 2018 and in 2019 it was 63% of the units offered, in the same month in 2021, total activity was only 10%.

THE RELATIONSHIP BETWEEN AIRBNB UNITS AND PRAGUE'S HOUSING STOCK

- Since 2018, the share of apartments offered on Airbnb in the total housing stock has decreased from 1.4% (and from 1.6% in 2019) to 0.7% in July 2021.
- However, the highest share of the housing stock is still in the historical center of Prague, especially in the cadastral areas of Staré Město (14.5%), Josefov (9%), Nové Město (8.5%) and Malá Strana (5.6%).

30 —— 5. Conclusion —— 31

In contrast to 2018, the offer of apartments on Airbnb was almost 60% higher than the offer of apartments for rent on Sreality. In 2021, the ratio reversed and the offer of apartments and houses for rent on Sreality is over 40% higher than Airbnb's offer.

Between 2017 and 2019, the offer of apartments for short-term accommodation on Airbnb and that of apartments for long-term rental through Sreality increased. The turning point came in August 2020, when the offer of apartments for rent on Sreality started to exceed that of apartments on Airbnb, which continued to decline.

It is therefore likely that some of the apartments were transferred from Airbnb to the long-term rental market. However, given the signs of growth in recent months, we can expect Airbnb's offer to grow rapidly again as visitor numbers to Prague increase.

REGULATING AIRBNB

Due to the rapid growth of Airbnb units in Prague until 2019 and their higher density in the historic city center, there has been an intense perception of some of the negative impacts of this development over the years. This has also triggered the need to regulate these services, particularly in three areas: the gray (informal) economy, unequal business conditions, quality of life for affected residents, housing affordability and safety.

Since 2018, two main amendments to acts have been adopted in the Czech Republic in the area of business environment settlement (Airbnb units have been classified as accommodation from which sojourn fees must be paid) and in the area of information provision (the trade licensing office has the power to require digital platforms to provide information on the units offered).

 On the European Union level, there has been a shift in the perception of digital platforms as a whole since 2018 and the adoption of EU-wide rules is expected under the Digital Services Act, which focuses on the regulation of digital platforms of different types.

The example of four European cities shows a shift in the perception of short-term accommodation and a gradual tightening of the rules for its operation. Cities have taken the approach of not only limiting the number of days per year that units can be offered, but also issuing blanket registration licenses that also limit the presence and increase of units in certain parts of the city (see summary table → Appendix P.01 for more). However, the

success of and ability to enforce these regulations is questionable.

32 —— 5. Conclusion 33

6. INDEXES AND LISTS

RELATED LEGISLATION

The generally applicable rules and regulations are stated in the latest valid version as subsequently amended, unless otherwise stated.

Laws

Act No. 565/1990 Coll., on Local Fees, as amended from 1.1.2021.

Act No. 159/1999 Coll., on Certain Conditions of Business Activities in the Field of Tourism

Act No. 455/1991 Coll., on Trade Licensing

Proposed legislative changes

Parliamentary Document No. 1007/0, the Proposal by Members Petr Dolínek, Jan Hamáček, Jan Birke, Alena Gajdůšková and others to issue an act on the conditions for providing shared accommodation remotely via digital platforms. Available at https://www.psp.cz/sqw/text/tiskt.sqw?0=8&CT=1007&CT1=0

Parliamentary Document no. 946/0, Proposal of the Prague City Council to issue an act amending Act No. 455/1991 Coll., on Trade Licensing (Trade Licensing Act), as subsequently amended. https://www.psp.cz/sqw/text/tiskt.sqw?0=8&CT=946&CT1=0.

European Commission. Brussels, 15.12.2020. COM(2020) 825 final. 2020/0361 (COD). Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC. Available at https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608117147218&uri=COM:2020:825:FIN.

REFERENCES

Úřad městské části Praha. (2021, September 13). *Krátkodobé pronájmy: Magistrát podpořil přelomové stanovisko Prahy 1*. https://www.praha1.cz/kratkodobe-pronajmy-magistrat-podporil-prelomove-stanovisko-prahy-1/.

Airbnb. (2021). Airbnb: Prague. www.airbnb.cz/praha.

Ajuntament de Barcelona. (2021). *About the PEUAT. Special Tourist Accommodation Plan.* https://ajuntament.barcelona.cat/pla-allotjaments-turistics/en/.

Bezrealitky. (2021, September 30). *Pronájmy bytů a domů v Praze*. https://www.bezrealitky.cz/.

Booking.com. (2021, September 9). https://www.booking.com.

Colomb, C., & Moreira de Souza, T. (2021). Regulating Short--Term Rentals: Platform-based property rentals in European cities: the policy debates. London: The Property Research Trust. DOI: https://doi.org/10.52915/KKKD3578.

Cosnard, P.D. (2020, December 12). Paris repousse sine die son référendum anti-Airbnb. *Le Monde*. https://www.lemonde.fr/politique/article/2020/11/06/paris-repousse-sine-die-son-referendum-anti-airbnb_6058831_823448.html.

Couchsurfing. (2021). https://www.couchsurfing.com/.

Czech Statistical Office (2021). *Cestovní ruch. Krajská správa ČSÚ v hl. m. Praze*. [https://www.czso.cz/csu/xa/cestovni_ruch-xa.

DuchtNews. (2020, January 29). Renting to tourists? You must have a permit, highest Dutch court says. *DuchtNews.nl*. https://www.dutchnews.nl/news/2020/01/renting-to-tourists-you-must-have-a-permit-highest-dutch-court-says/.

e-chalupy.cz. 2021. https://www.e-chalupy.cz/.

European Commission. *The Digital Services Act: ensuring a safe and axxountable online evironment*. An official website of the European Union. https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment_en.

chata.cz. 2021. https://www.chata.cz/.

Inside Airbnb. 2021. *About*. http://insideairbnb.com/about. html.

Inside Airbnb. (2021). *Get the data*. Murray Cox. Creative Commons Attribution 4.0 International Licence. http://insideairbnb.com/behind.html.

iRozhlas. (2020, March 11). Praha 1 chce dočasně zakázat krátkodobé ubytovací služby. V Příčné ulici bydleli dva nakažení Francouzi. https://www.irozhlas.cz/zpravy-domov/praha-1-chce-docasne-zakazat-kratkodobe-ubytovaci-sluzby-v-pricne-ulici-bydleli 2003111142 mpa.

Keycafe. (2021). Understanding Barcelona's Short-Term Rental Regulations. *Keycafe*. https://blog.keycafe.com/understanding-barcelonas-short-term-rental-regulations/.

Lomas, N. (2019, December 12). Airbnb is a platform not an estate agent, says Europe's top court. *TechCrunch*. https://techcrunch.com/2019/12/19/airbnb-is-a-platform-not-an-estate-agent-says-europes-top-court/.

Lomas, N. (2021, March 15). Court overturns Amsterdam's three-district ban on Airbnb rentals. *Tech Crunch*. https://techcrunch.com/2021/03/15/court-overturns-amsterdams-three-district-ban-on-airbnb-rentals/?guce_referrer=a-HROcHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQA-

AAHzG-t6XzPh6v8-ll9_XVBZsxLAiCZC5QB39GeX7LBQaRHpkxS-gg3OhYwV_s-Qyo8FZabyX2y4vGlZiM0jY86NEZ.

Magistrát hl. m. Prahy. (2020). Další legislativní návrh v oblasti krátkodobých ubytovacích kapacit je připraven. *Praha.eu: Portál hl. m. Prahy.* https://www.praha.eu/jnp/cz/o_meste/magistrat/tiskovy_servis/tiskove_zpravy/dalsi_legislativni_navrh_v_oblasti. html.

Marianovská, V.,& Němec, M. (2018). Fenomén Airbnb a jeho dopady v kontextu hl. Prahy. Praha: Institut plánování a rozvoje hl. m. Prahy. https://iprpraha.cz/assets/files/files/078cf11fe352bb3d8b0858fa62326ae0.pdf.

Österreichs digitales Amt. (2021). Vermieten der Eigentumswohnung. https://www.oesterreich.gv.at/themen/freizeit_und_strassenverkehr/reisen_und_ferien/7/Seite.2960402.html.

Prague City Tourism. (2020). *Koncepce příjezdového cestovního ruchu hlavního města Prahy*. https://www.praguecitytourism.cz/cs/pis-pct/koncepce-cestovniho-ruchu.

Prokeš, J. (2021, September 30). Praha chce zatlačit na ubytovací platformy přes stavební úřady. *Pražský deník*. https://prazsky.denik.cz/podnikani/bydleni-ubytovani-ubytovaci-platformy-kratkodobe-ubytovani-airbnb.html.

Rivera, H. (2021, February 22). Paris rules to restrict short-term rental operations. *Short Term Rentalz*. https://shorttermrentalz.com/news/paris-restrictions/.

Sreality. (2021). Pronájmy bytů a domů v Praze. https://www.sreality.cz/.

Stadt Wien. (2021). *Vermieten von Wohnungen für touristische Zwecke*. https://www.wien.gv.at/wirtschaft/standort/share-economy/privat-vermieten.html#vermieten.

Tom Slee. 2017. Airbnb Data Collection: Get the Data. http://tomslee.net/category/airbnb-data.

Úřad vlády České republiky. (2017, June). *Analýza sdílené* ekonomiky a digitální platforem. Sekce pro evropské záležitosti Úřadu vlády ČR. © 2017, 06/2017.

Vrbo. (2021). https://www.vrbo.com/.

Wimdu. (2021). https://www.wimdu.com/.

SUPPLEMENTARY DATA SOURCES

Icons and Photos For Everything. (2021, September) The noun project. https://thenounproject.com/.

Czech Statistical Office. (2021). *Public database*. Prague: CZSO. https://vdb.czso.cz/vdbvo2/.

Register of territorial identification, addresses and real estate. (2021). Internal database. IPR Prague.

Eurostat. (2021). *Database: urban population.* https://ec.europa.eu/eurostat.

Onderzoek, Informatie en Statistiek. (2021). *Bevolking stadsdelen: Dataset. Bevolking naar stadsdelen, 1 januari 2016-2021.* https://data.amsterdam.nl/datasets/Q1fjq8zfXdlChA/bevolking-stadsdelen/.

Statistical Institute of Catalonia. (2021). *The municipality in figures: Barcelona (Barcelonès). Population (2020)*. https://www.idescat.cat/emex/?lang=en&id=080193.

Statistik Austria. (2021). *Berechnung MA 23*. https://www.wien.gv.at/statistik/bevoelkerung/tabellen/bevoelkerung-bez-zr.html.

Statistics Denmark. (2021). *Population 1. January by municipality and time*. https://www.statbank.dk/statbank5a/default.asp?w=1440.

Office for National Statistics. (2021). *Population Estimates* for UK, England and Wales, Scotland and Northern Ireland: mid-2020-april-2021-geography. https://www.ons.gov.uk/filteroutputs/3ff8019b-0275-4a45-82d3-20c4dc3cd33a.

Insee. (2021). Population légale de l'Île-de-France. Figure 1 - La croissance démographique ralentit en Île-de-France sur la période 2013-2018. https://www.insee.fr/fr/statistiques/5002478#consulter.

Censos (2021): Resultados Preliminares. Lisboa Municípios. https://www.ine.pt/scripts/db_censos_2021.html.

—— 6. Indexes and lists —— 35

7. ANNEXES

P.01 Time series overview of available datasets of Airbnb units in Prague from 2016 to 2021

IPR Prague 2021 / data: Inside Airbnb 2021

Date of scrapping			Source of data	Source of data Source website	
year	month	day			
2016	March	21	Tom Slee	http://tomslee.net/airbnb-data	
2017	September	22	Tom Slee	http://tomslee.net/airbnb-data	
2018	April	21	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2018	July	31	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2018	August	27	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2018	September	20	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2018	October	18	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2018	November	21	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2018	December	21	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	January	29	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	February	18	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	March	28	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	April	27	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	May	28	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	June	29	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	July	28	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	August	31	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	September	30	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	October	29	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	November	30	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2019	December	31	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	January	28	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	February	22	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	April	30	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	May	30	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	June	30	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	October	9	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	November	10	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2020	December	21	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2021	January	20	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2021	February	20	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2021	March	13	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2021	April	21	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2021	June	27	Inside Airbnb	http://insideairbnb.com/get-the-data.htm	
2021	July	13	Inside Airbnb	http://insideairbnb.com/get-the-data.ht	

7. Annexes —— 37

P.02 Overview of short-term private accommodation regulations in selected European cities

IPR Prague 2021 / data: Colomb, Mareira de Souza 2021

Regulation	Amsterdam	Paris	Barcelona	Vienna	Prague
Registration fee	YES	YES	YES	YES	NO
Time limit	30 days per year	120 days per year	NO	NO	NO
Size limits / number of guest limits	max. 4 guests	NO	15 (resp. 4) guests	up to 10 beds	NO
Subject to tourist or city taxes	YES	YES	YES	YES	YES
Qualitative or geographical limits	YES	NO	YES	YES	NO
Control and enforcement (inspectors + analysts)	YES (70+3)	YES (35+0)	YES (30+40)	YES	NO
Data sharing with public authorities	NO	YES	YES	YES	YES
Fines for hosts	up to €21,750	up to €80,000	€ 30,000	up to €50,000	_
Fines for platforms	_	up to €50,000 per enrollment	€30,000 to €600,000	_	up to €40,000

38 —— 7. Annexes

Airbnb in Prague:

Analysis of the Quantity, Structure, And Distribution of Accommodation on Offer As of June $13,\,2021$

Author

Mgr. Veronika Marianovská / Office for City Analysis / marianovska@ipr.praha.eu

Collaboration

Mgr. Michal Němec / Office of Sustainability Strategies and Policies Mgr. Lenka Petříková / Office of Sustainability Strategies and Policies Ing. arch. Martina Portyková / Office for City Analysis

Typesetting and graphic layout of image attachments

Ing. arch. Zdeňka Havlová, Ph.D. / Office for City Analysis Ing. arch. Markéta Stefanová / Office for City Analysis Ing. arch. Alena Zmeškalová / Office for City Analysis

Translation

Vendula Kwiek

09/2021

Prague Institute of Planning and Development Department of City Development Office for City Analysis

To cite this study

Marianovská, V. (2021). Airbnb in Prague: Analysis of the Quantity, Structure, And Distribution of Accommodation on Offer As of July 13, 2021. Prague Institute of Planning and Development.

Prague Institute of Planning and Development First edition / 39 pages

© Prague Institute of Planning and Development 2021 All rights reserved

https://iprpraha.cz/en/

