Germany Rent Prediction model

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WHY?

over 50% of

Germany population live in rented apartment*

5,5 bln EUR

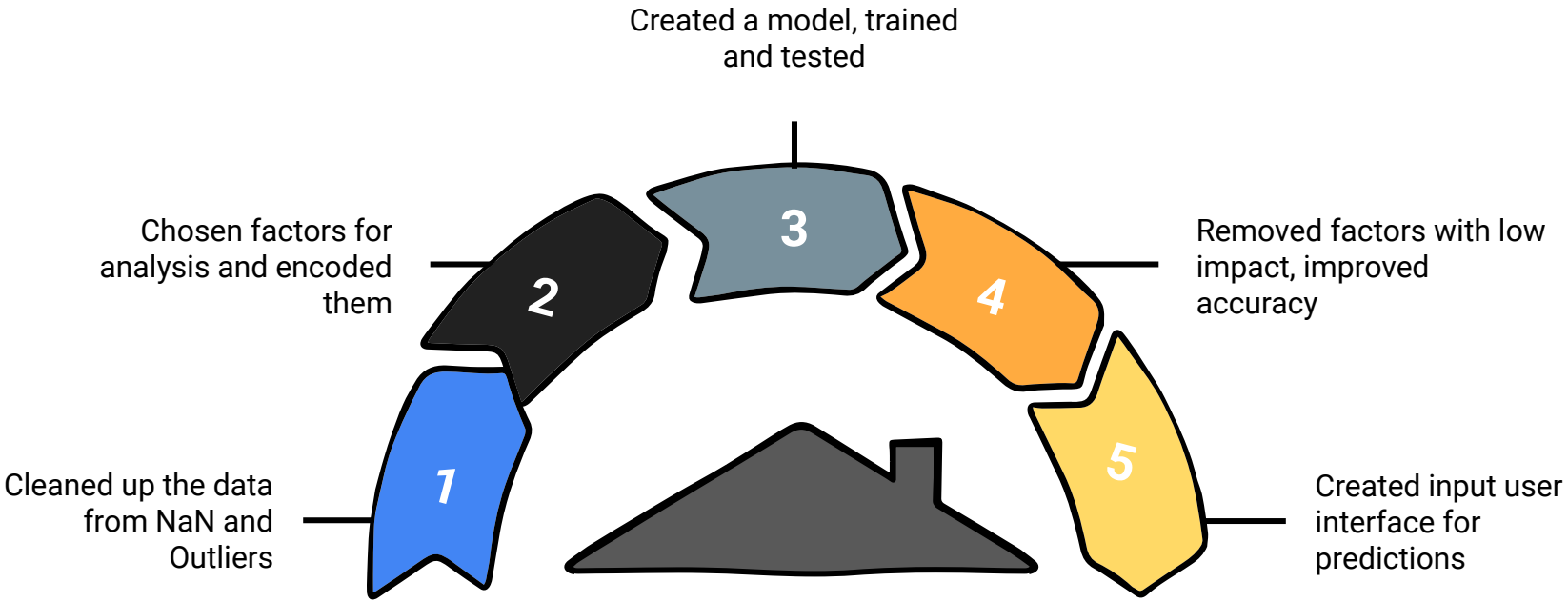
capital investment in residential apartment in Germany

* Federal Statistical Office of Germany (Destatis), 2021

DATA SOURCE

Immo Scout24 → kaggle →

DATA PROCESSING



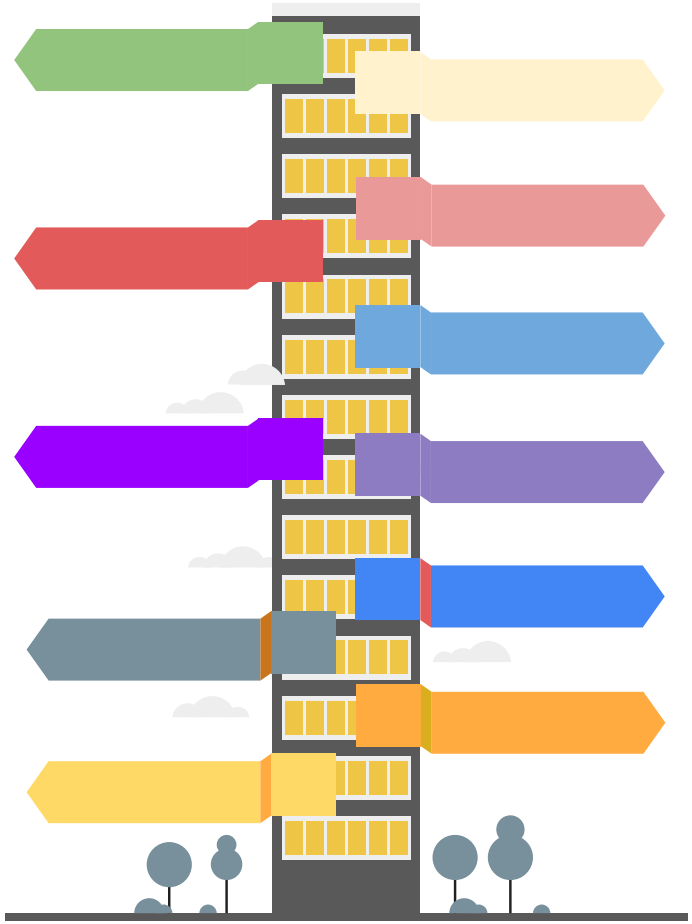
Baserent

Livingspace

Floor

Energy Efficiency Class

Balcony



Haskitchen

Cellar

Lift

Garden

Pets Allowed

Geo_krs

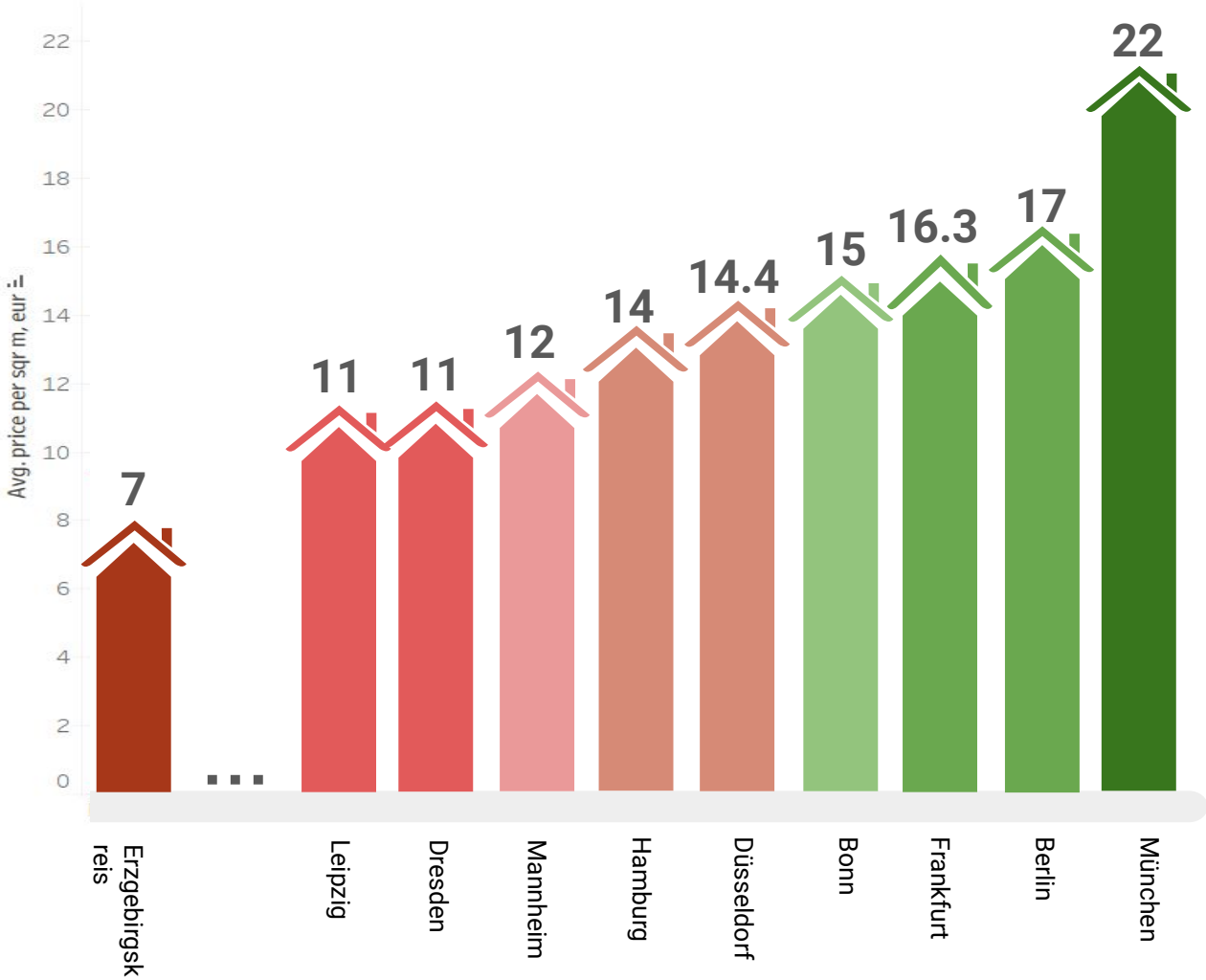
VARIABLES

VARIABLE 1 - CITY

MAIN IMPACT in the model

München - the most expensive city

Erzgebirgskreis - the cheapest city ever



VARIABLE 2 - LIVING SPACE

obvious correlation with baserent

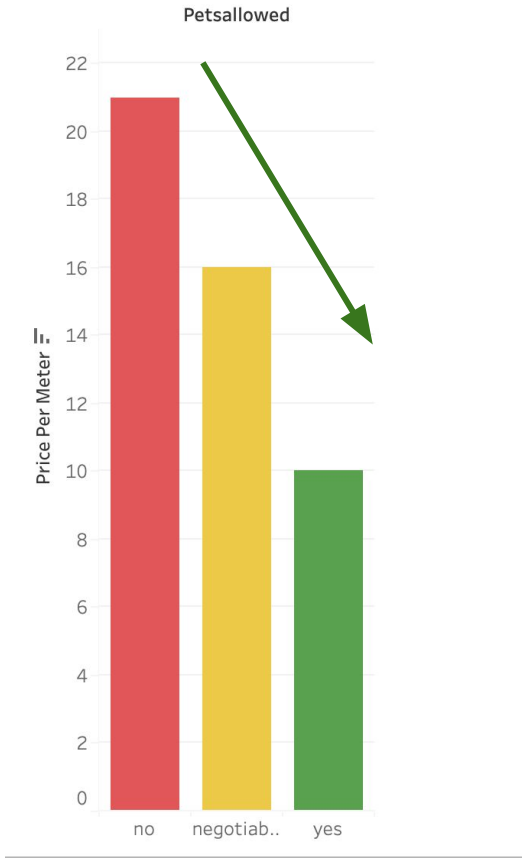
The most common flat size is 60-100 sqr m

VARIABLE 3 - PETS

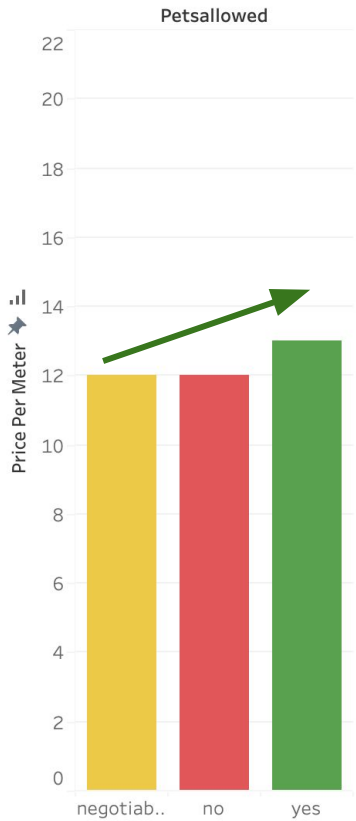
"Yes" - 7%
"Negotiable" - 52%
"No" - 41%

Allowing pets can increase price slightly, BUT NOT IN BERLIN

BERLIN



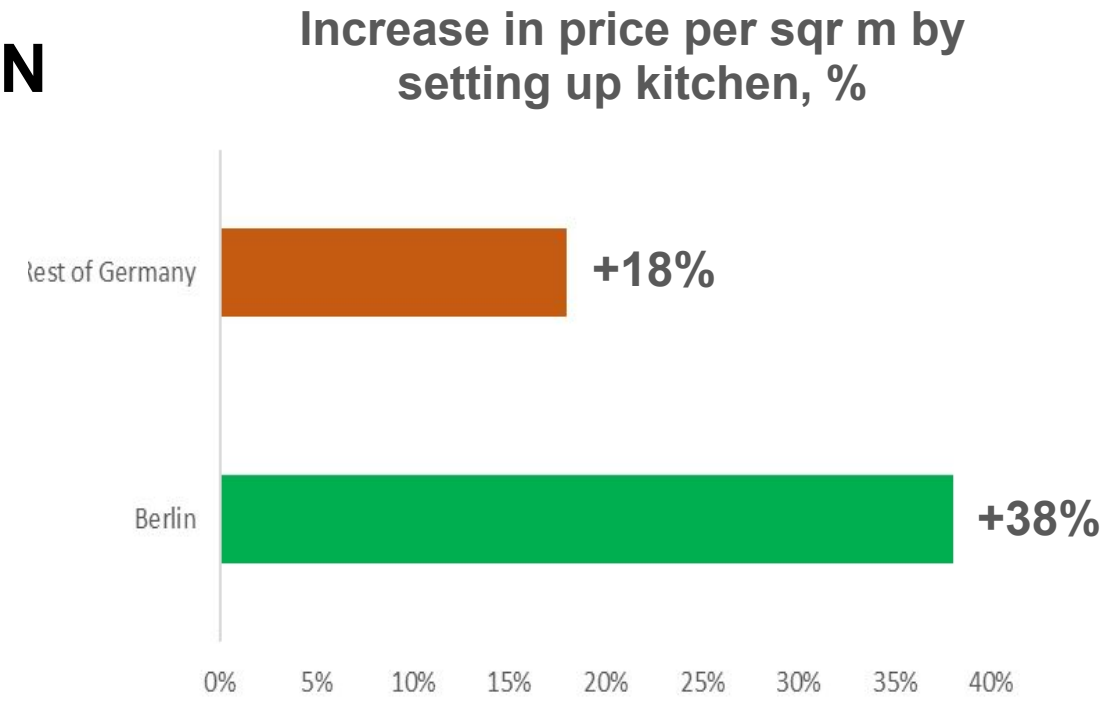
REST OF GERMANY



VARIABLE 4 - KITCHEN

Kitchen - increases price by around 18%

In Berlin - by 38%



MODEL

real_price, EUR	predicted_price, EUR	Accuracy, %
1480	1310	89
855	827	97
884	836	95
1300	1315	99
1050	1048	100

81%

accuracy

INPUT

```
input_df=input_data()
predict(input_df)
```

```
What is the size of the appartment? Input a number of sqr m: 65
How many rooms are in the appartment? Input a number of rooms: 2
What floor is it at? Input a number: 2
What energy efficiency class is it? Input a letter: b
Does it have a balcony? Say yes or no: yes
Does it have kitchen? Say yes or no: no
Does it have cellar? Say yes or no: no
Does it have lift? Say yes or no: yes
Does it have garden? Say yes or no: no
Are the pets allowed in this appartment? Input yes, no or negotiable: negotiable
What is the city? Please choose one of those in the list: Berlin
The monthly base rent will be: [[1146.29314298]] EUR
```

THANK YOU!