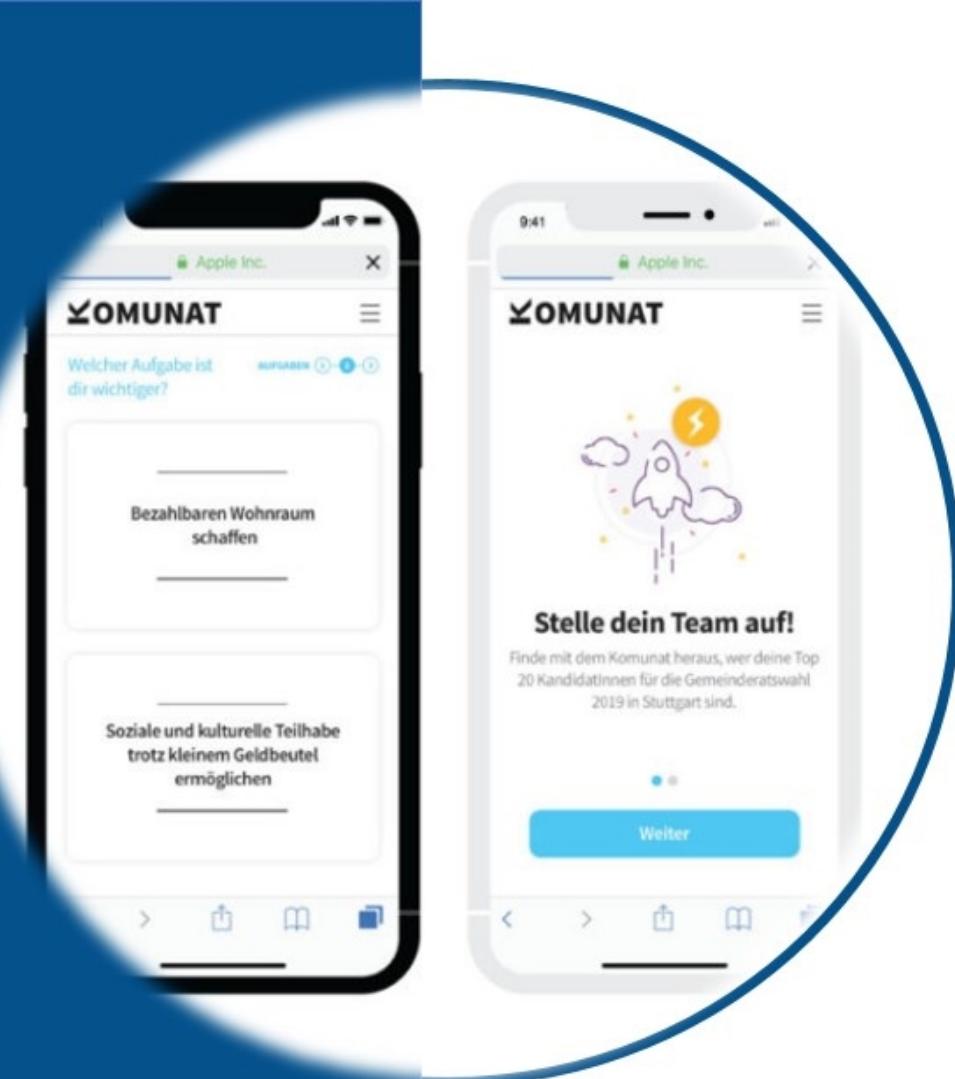


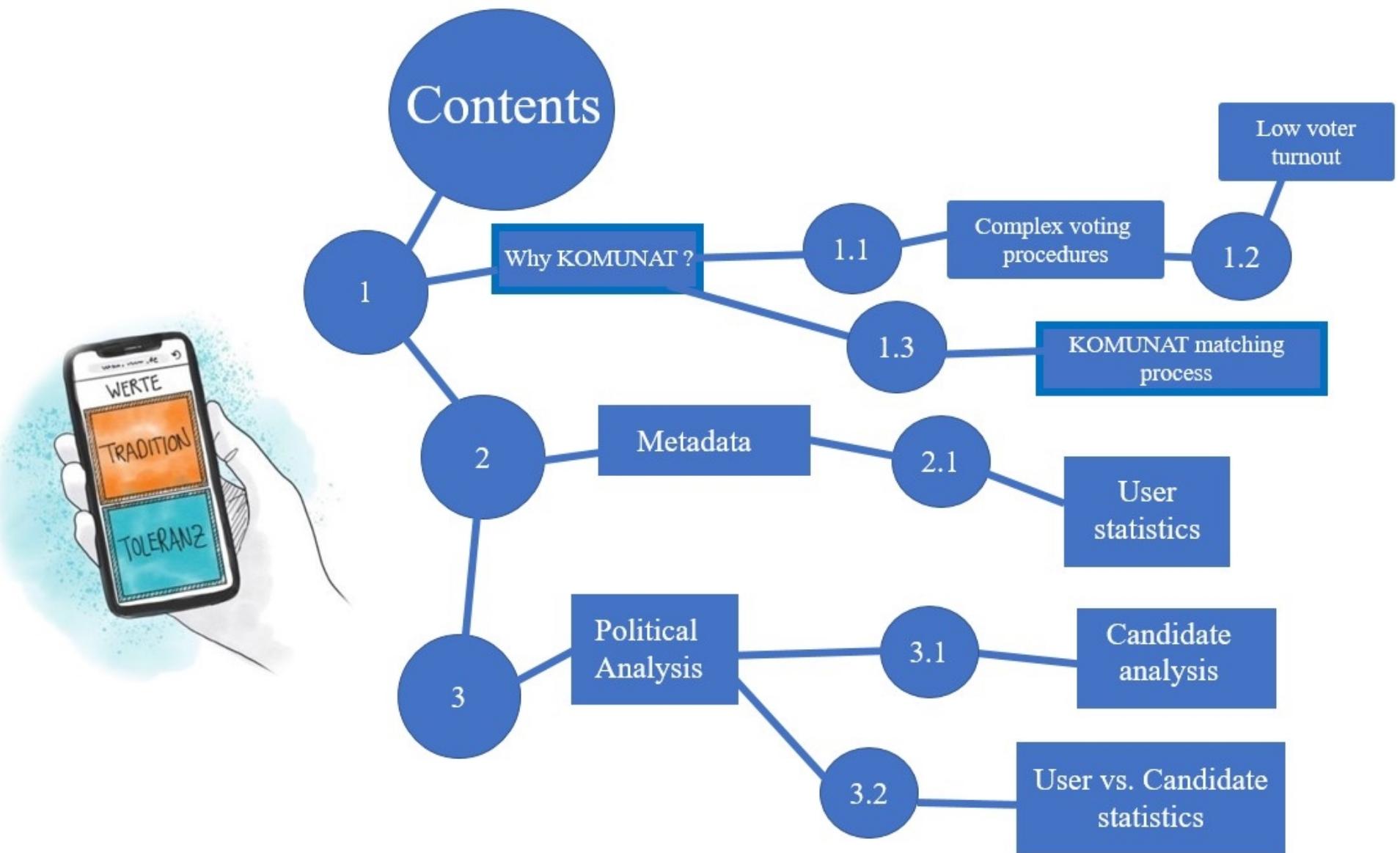
# The KOMUNAT

A statistical assessment of  
a voting advice application



in cooperation with





1

## What is a Voting Advice Application?



Party-based:

- ❖ Wahl-O-Mat, iSideWith



voter



party

Candidate-based

- ❖ KOMUNAT



voter



candidate

1.1

1

## Why KOMUNAT?



Local elections Stuttgart  
May 2019

1.1

Complex voting  
procedures

1.1

**Complex voting procedures**  
Example: How local elections work in Germany (Cumulative voting)

If party list selected: Every candidate (A to I) receives one vote until the max. No. of votes is reached

The most promising candidates receive a pole position by their party

Ballot Paper- Max. No. of votes: 10		
<b>Party List A</b>	<b>Party List B</b>	<b>Party List C</b>
<b>Candidate</b>	<b>Candidate</b>	<b>Candidate</b>
#1 A	<input type="radio"/>	<input type="radio"/>
#2 B	<input checked="" type="radio"/>	<input checked="" type="radio"/>
#3 C	<input checked="" type="radio"/>	<input type="radio"/>
#4 D	<input checked="" type="radio"/>	<input checked="" type="radio"/>
#5 E	<input type="radio"/>	<input type="radio"/>
#6 F	<input type="radio"/>	<input type="radio"/>
#7 G	<input type="radio"/>	<input type="radio"/>
#8 H	<input type="radio"/>	<input type="radio"/>
#9 I	<input checked="" type="radio"/>	<input type="radio"/>
#10 J	<input checked="" type="radio"/>	<input checked="" type="radio"/>

Complex voting procedures  
Example: How local elections work in Germany (Panachage)

Ballot Paper-  
Max. No. of votes: 10

Party List A	Party List B	Party List C
Candidate	Candidate	Candidate
#1 A	<input checked="" type="radio"/>	<input checked="" type="radio"/>
#2 B	<input type="radio"/>	<input type="radio"/>
#3 C	<input type="radio"/>	<input checked="" type="radio"/>
#4 D	<input type="radio"/>	<input type="radio"/>
#5 E	<input type="radio"/>	<input type="radio"/>
#6 F	<input type="radio"/>	<input type="radio"/>
#7 G	<input type="radio"/>	<input type="radio"/>
#8 H	<input type="radio"/>	<input type="radio"/>
#9 I	<input type="radio"/>	<input type="radio"/>
#10 J	<input type="radio"/>	<input checked="" type="radio"/>

Stuttgart is more complicated  
than our example



930

Candidates not 28



20

Party lists not 3



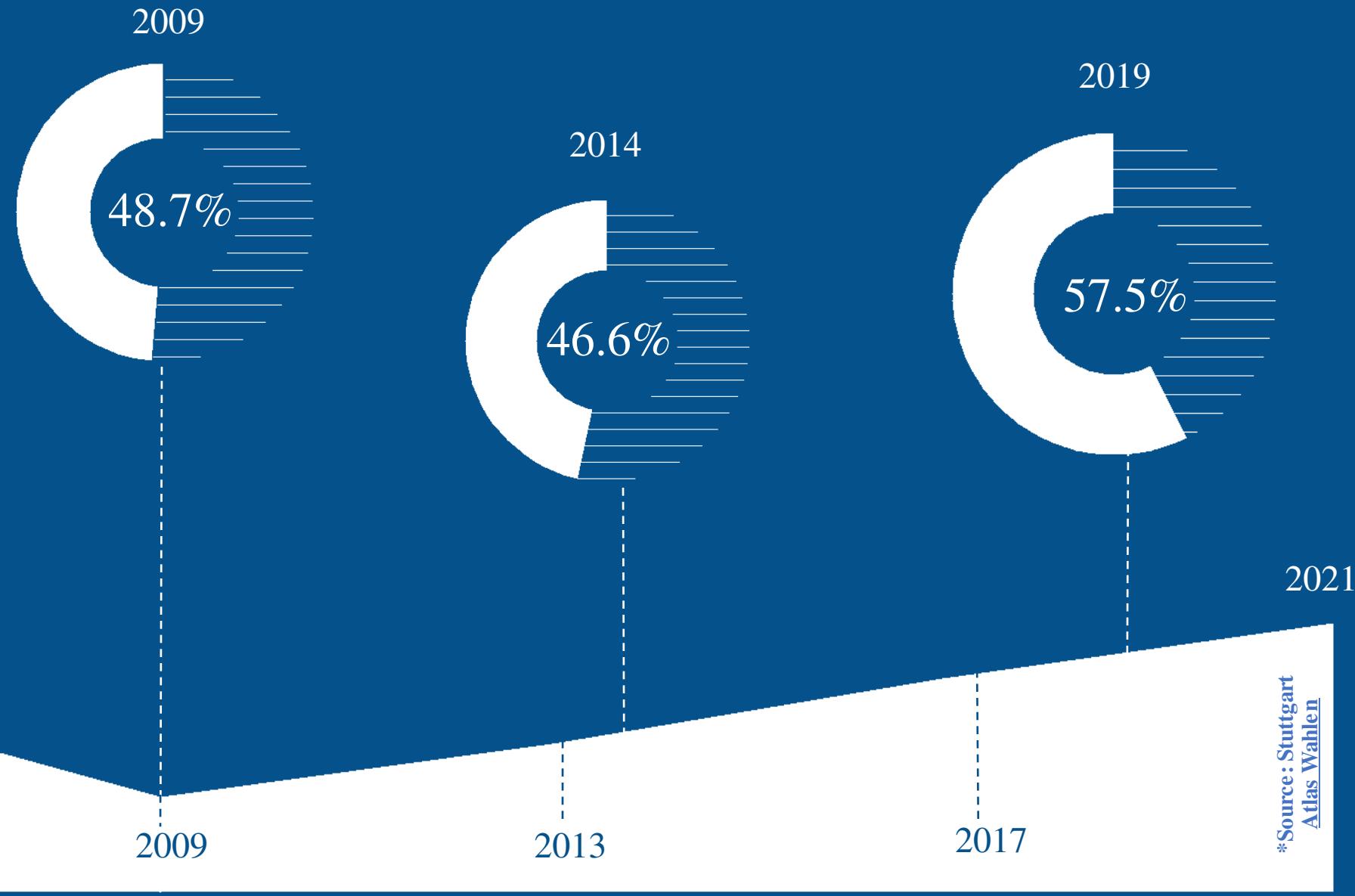
Max 60

votes not 10



## Federal elections voter turnout in Stuttgart

84%  
82%  
80%  
78%  
76%  
74%  
72%  
70%



Low voter turnout\*

1.2

2019

57.5%

2009

48.7%

2014

46.6%

2005

2021

2009

2013

2017

\*Source: Stuttgart  
Atlas Wahlen

## Before the launch of KOMUNAT

Political Principles (Rank 1-12)	Political Statements (Rank 1-13)
Tradition	lower fares for bus and train travel
Solidarity	affordable housing
Human dignity	promotion of child care
Justness	no new public debt for Stuttgart
Tolerance	tighten security in public spaces
Freedom of Expression	promotion of social co-existence and integration
Freedom of Press	refurbish schools
Sustainability	promotion of subculture
Wealth/Prosperity	promotion of social participation
Self-determination	encourage regional growth
Rule of law	climate neutrality for Stuttgart
Certainty	transparency in local politics
-	promotion of alternative means of transportation



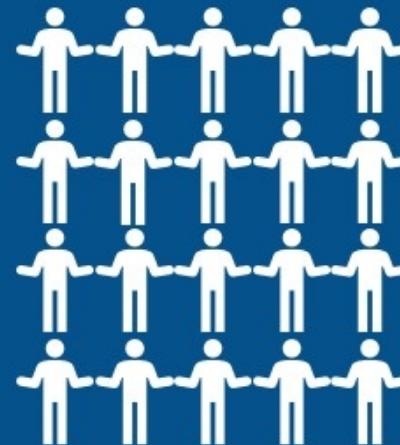
Candidate

## The KOMUNAT matching process

1.3



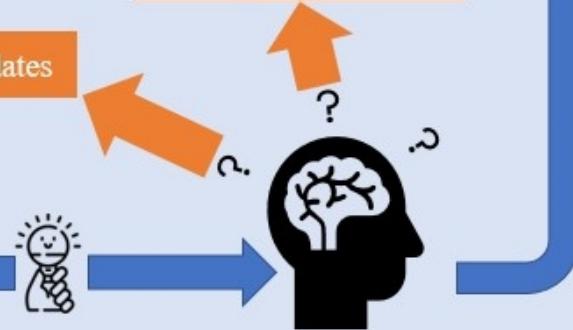
20 Candidates matched



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Complicated voting system

960 candidates



Potential Voter

After the launch of KOMUNAT

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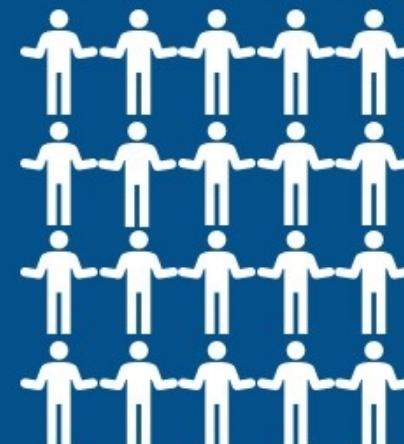
Candidate

## The KOMUNAT matching process

1.3



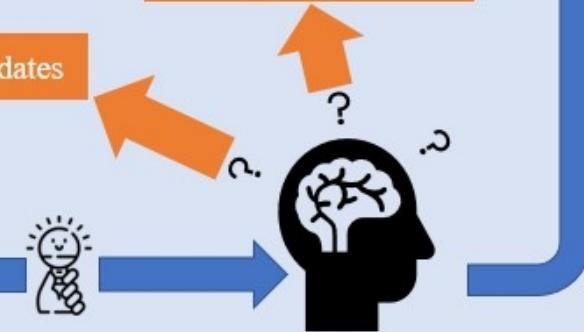
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Political Principles (Rank 1-12)	Political Statements (Rank 1-13)
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Candidate

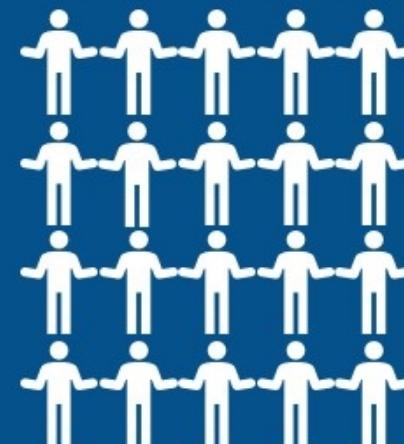
## The KOMUNAT matching process

1.3



↓

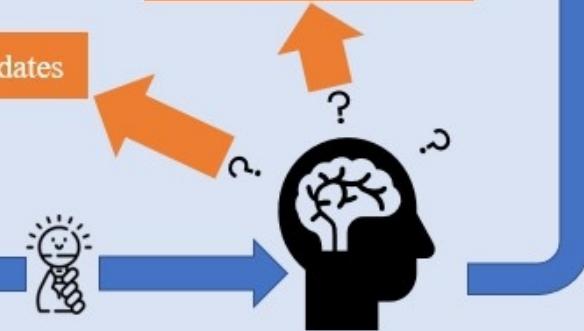
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Complicated voting system

960 candidates



Potential Voter

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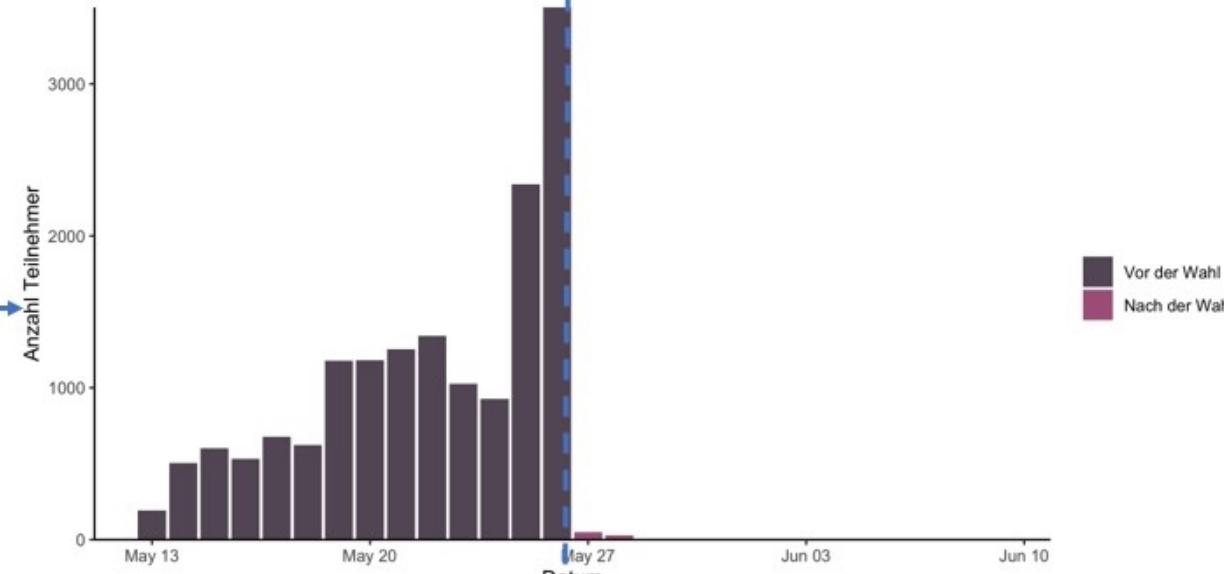


2.1

## User statistics

May 26th local elections  
Stuttgart

Number of users



20.994

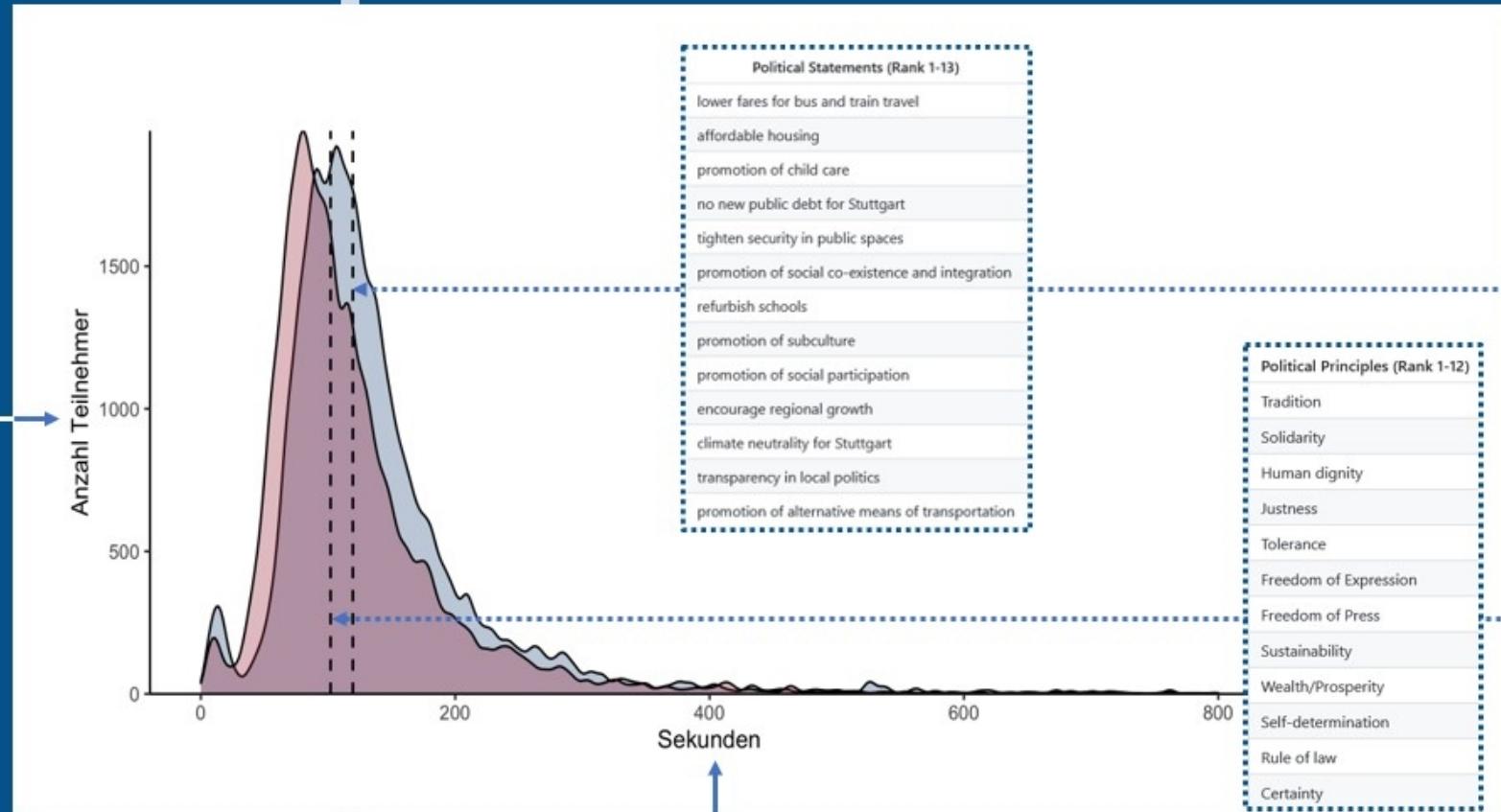
users

used KOMUNAT

Over 3.000

users used KOMUNAT

24 hrs. in advance of  
polling day



Users require

119 sec.

to rank the  
political statements

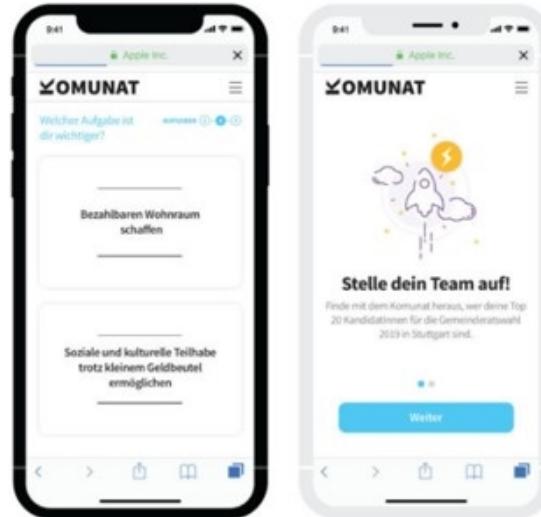
Users require

102 sec.

to rank the  
political principles

3

## Political Analysis

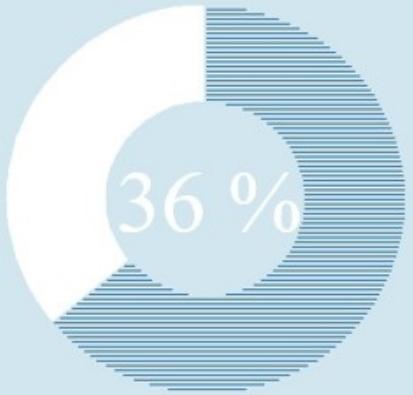


3.1

### Candidate analysis

3.1

## Candidate analysis



335 Candidates

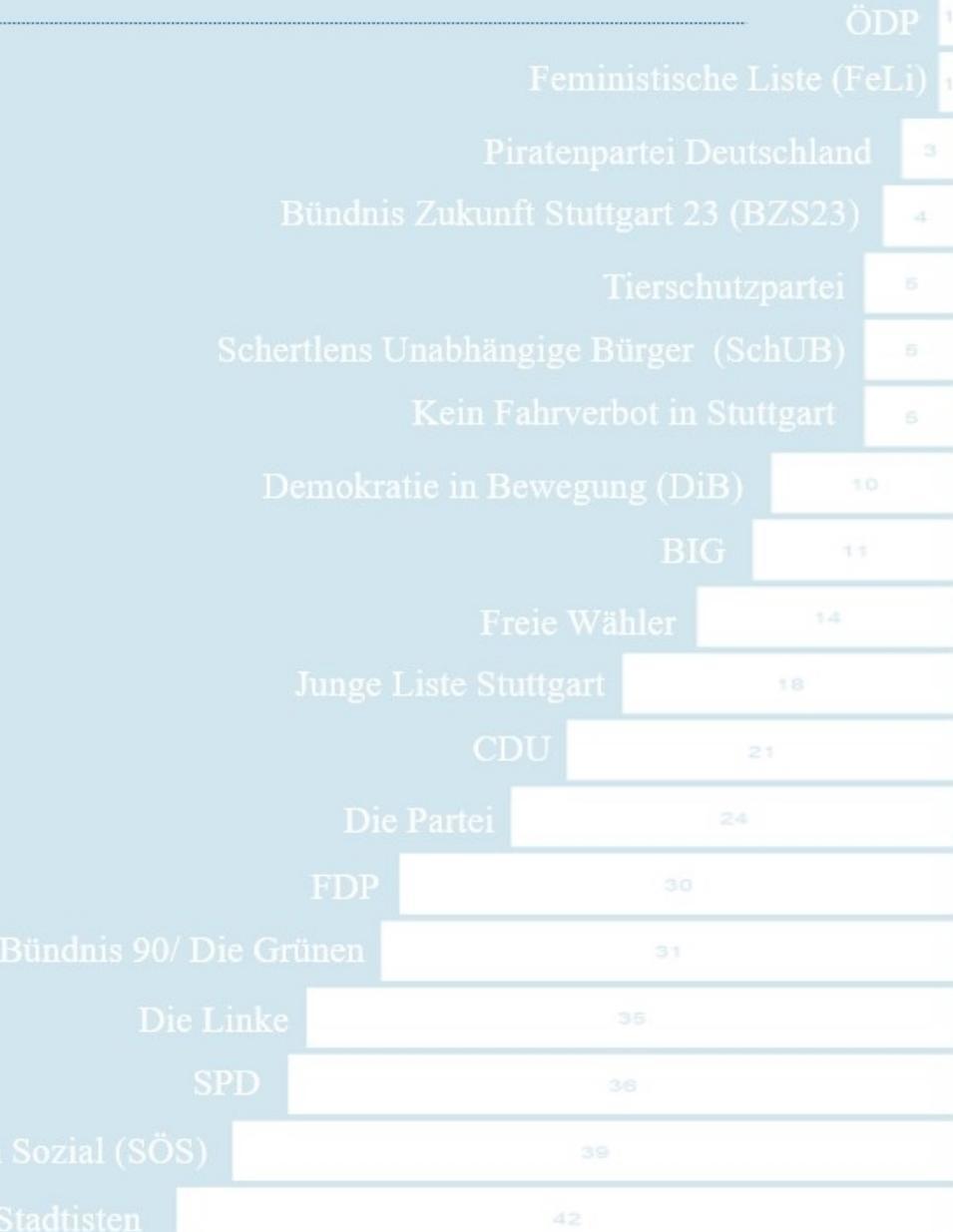
out of 930 created a  
KOMUNAT profile

representing 19 parties

Stuttgart Ökologisch Sozial (SÖS)

Die Stadtisten

42



## 3.1

## Candidate analysis

Christoph Hofrichter, 188 matches, Die Linke •  
Khaled Abd El-Moneim, 214 matches, BIG •  
Pascal Teuke, 218 matches, FDP •  
Irene Waller, 236 matches, CDU •  
Alla Deringer, 242 matches, CDU •  
Roland Saur, 250 matches, SÖS •  
Mirjana Radosavljevic, 260 matches, SchUB •  
Lucky Okosodoh, 260 matches, BIG •  
Marvin Reule, 265 matches, DiB •  
Paiman Shafiq Ismail, 265 matches, BIG •

- Luisa Klaas, 2857 matches, DIE PARTEI
- Dieter Baur, 2572 matches, ÖDP
- Michael Schrade, 2534 matches, Freie Wähler
- Caroline Flegel, 2467 matches, Die Stadtisten
- Eva Haag, 2459 matches, SÖS
- Reinhard König, 2292 matches, SÖS
- Annett Allain, 2199 matches, Bündnis 90/Die Grünen
- Oliver Scheer, 2196 matches, Die Linke
- Guntrun Müller-Enßlin, 2067 matches, SÖS
- Julia Schmid, 2067 matches, Junge Liste Stuttgart

Most popular candidates

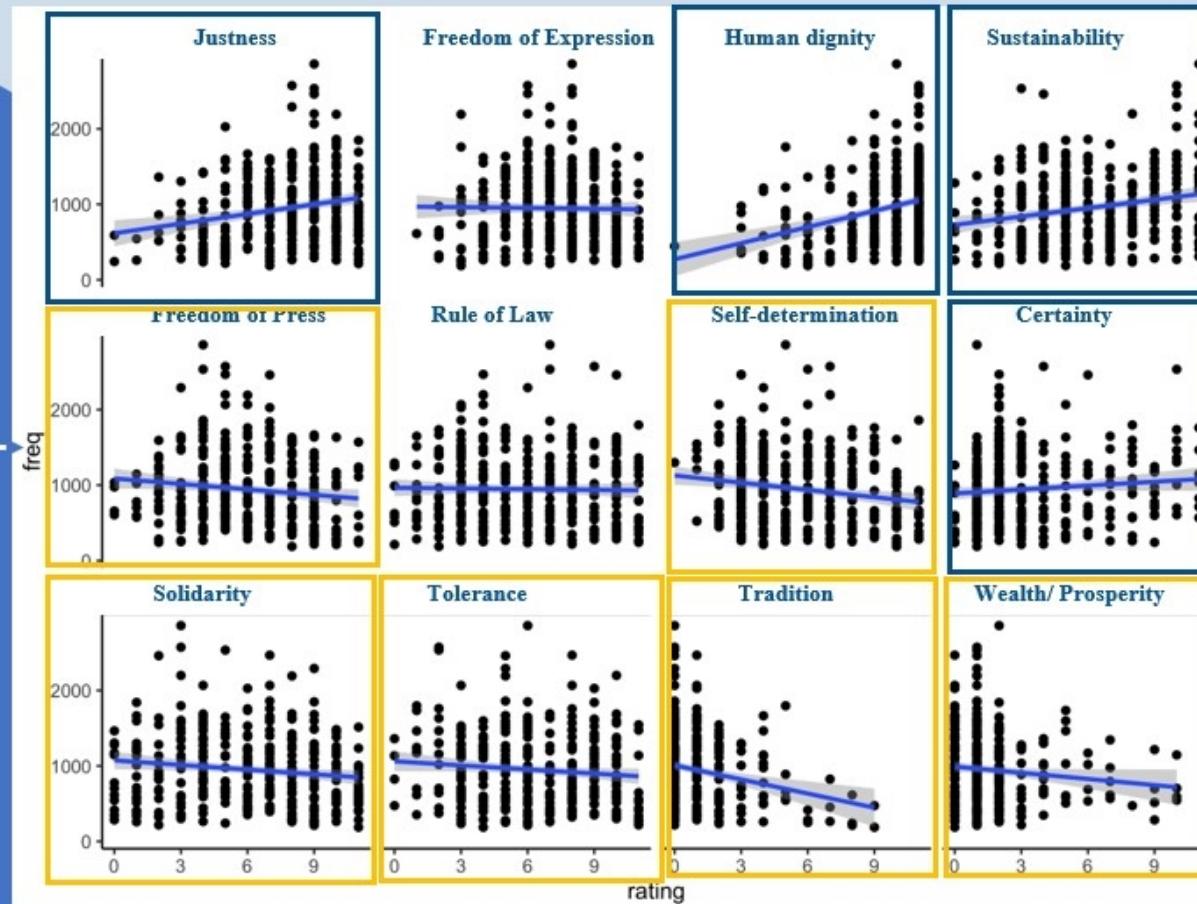
Least popular candidates

## 3.1

Candidate analysis  
Political Principles

## Determining factors of success

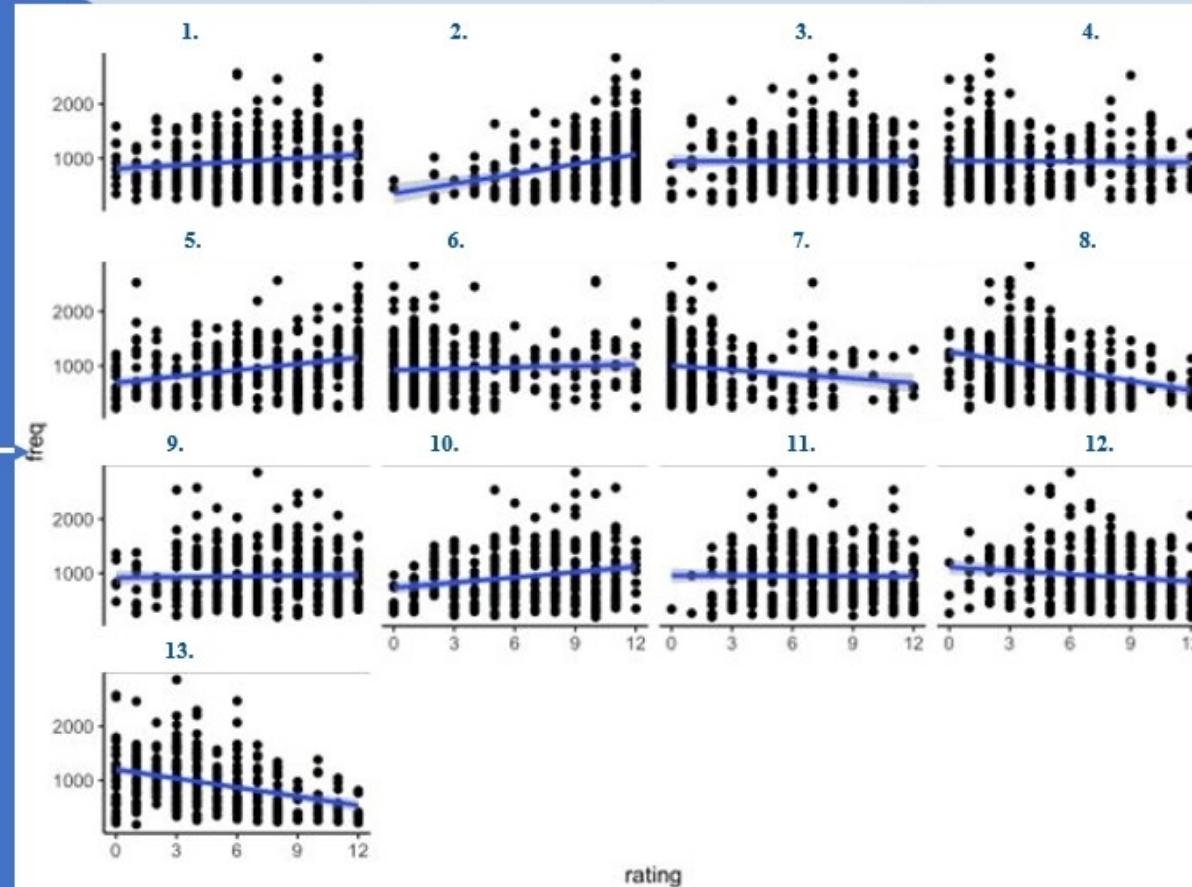
Frequency  
how often users were  
matched with candidates



Positive correlation

Negative Correlation

**Frequency**  
how often users were  
matched with candidates

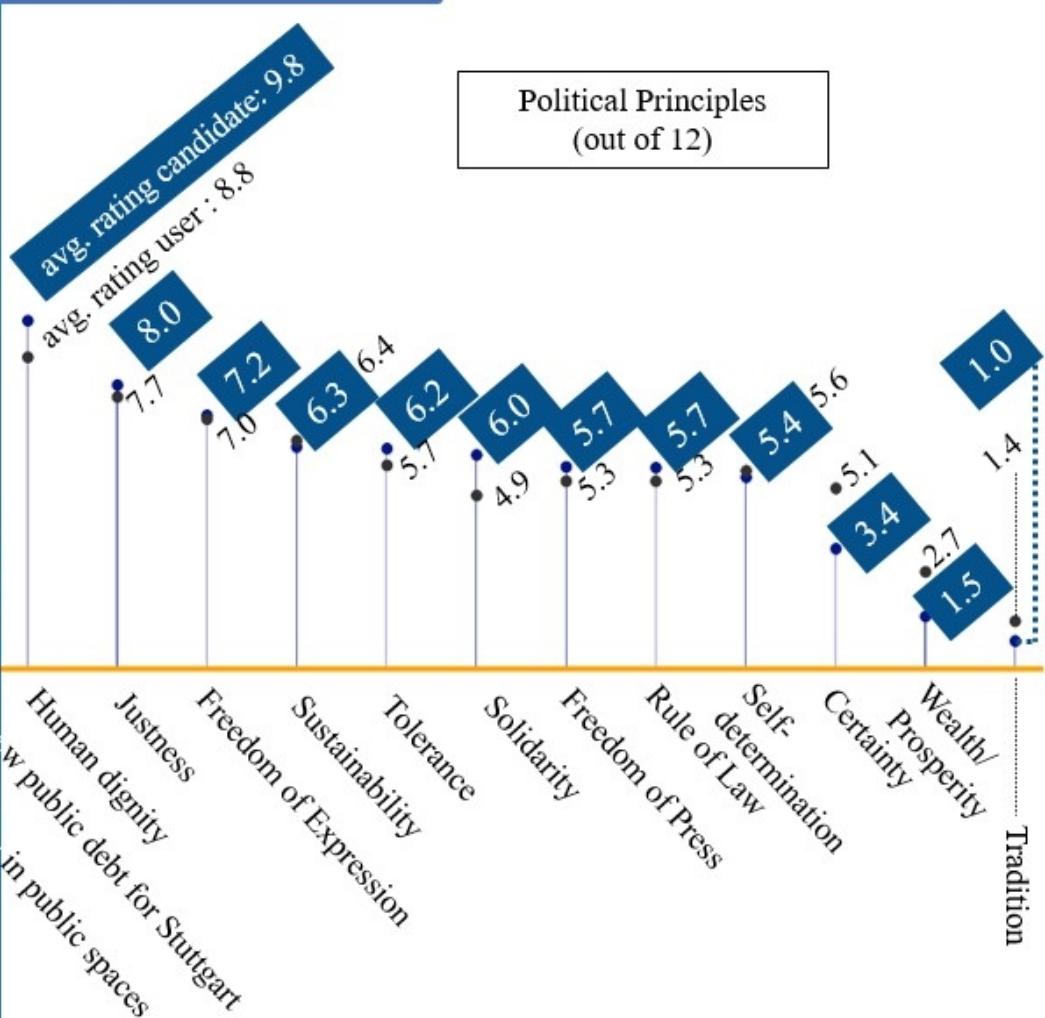
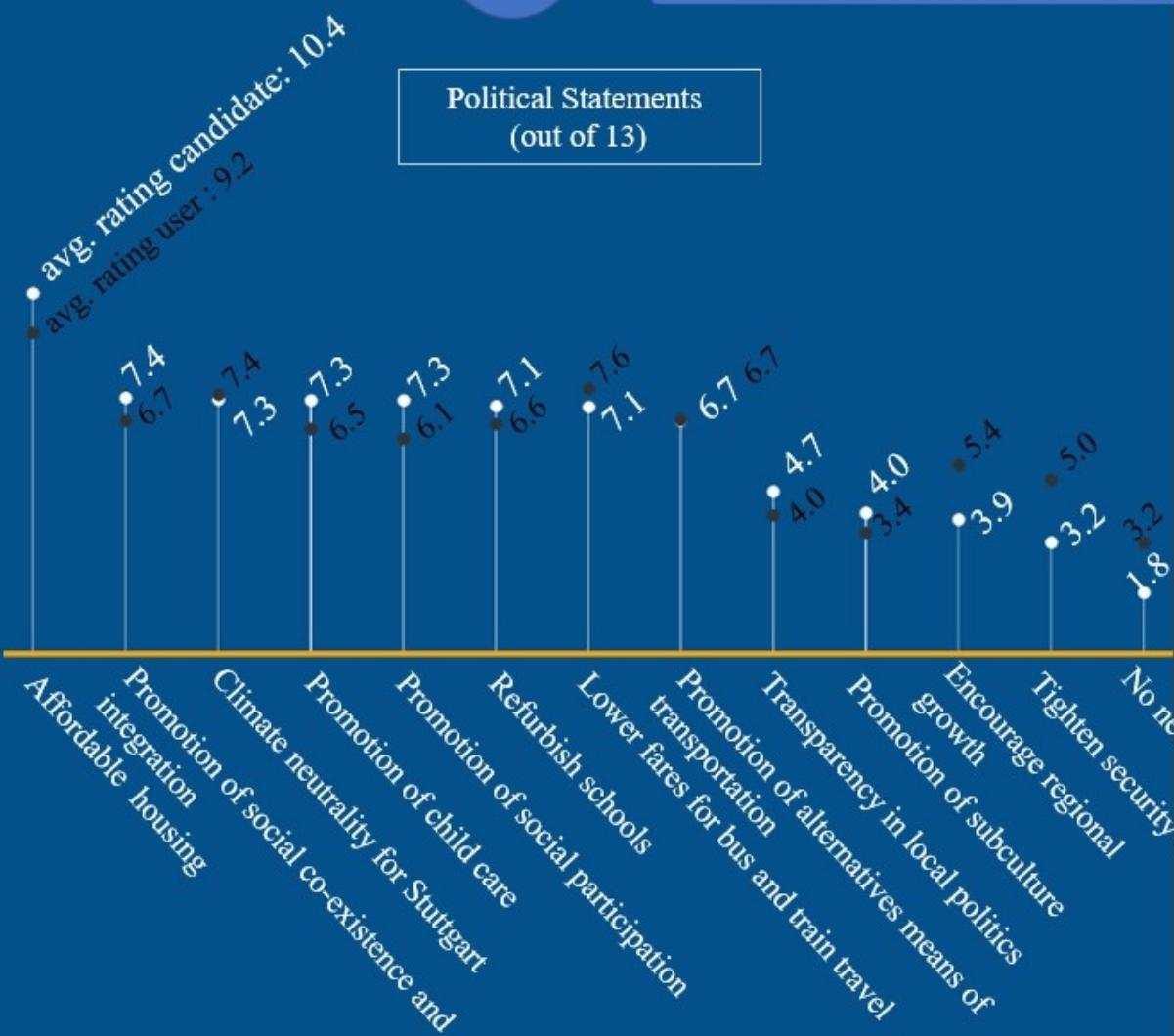


Positive correlation



Negative Correlation

1. Promotion of alternatives means of transportation
2. Affordable housing
3. Promotion of child care
4. Encourage regional growth
5. Climate neutrality for Stuttgart
6. Tighten Security in public spaces
7. No new public debt for Stuttgart
8. Transparency in local politics
9. Promotion of social co-existence and integration
10. Lower fares for bus and train travel
11. Refurbish schools
12. Promotion of social participation
13. Promotion of subculture



3.2

## User vs. Candidate statistics

A step to step introduction to our Shiny Dashboard



Step 1

### Komunat Daten Visualisierungstool

Dieses interaktive Tool basiert auf Daten des Komunat 2019. Unter dem Tab *Performance* werden Frequency und Distanz für jeden Kandidaten abgebildet (jeder Punkt repräsentiert einen Kandidaten). **Frequency** steht hierbei dafür, wie häufig der Kandidat unter die Top 20 Vorschläge der App Nutzer gekommen ist. **Distanz** ist ein Wert der berechnet wurde um darzustellen, wie ähnlich bzw. unähnlich die Antworten des Kandidaten im Durchschnitt zu den App Nutzern war. Die Farbe der Punkte markiert, wie gut die Kandidaten bezüglich ihrer Frequency im Vergleich zu anderen Kandidaten abgeschnitten haben (siehe Legende).

Zusätzlich können einzelne Parteien und/oder Kandidaten ausgewählt werden (die Auswahl der Kandidaten passt sich an die ausgewählte Partei an. Die Partei/Kandidaten werden dann in der Graphik hervorgehoben. Unter dem Tab *Ausgewählter Kandidat - Inhalte und Werte* sieht man das rating des ausgewählten Kandidaten für die im Komunat gestellten Fragen (aufgeteilt in Inhalts- und Wertefragen). Wenn mehrere Kandidaten ausgewählt wurden, wird das mittlere rating angezeigt. Wird kein Kandidat ausgewählt, werden die ratings über ALLE Kandidaten gemittelt. Unter *Ausgewählte Partei - Inhalte und Werte* Sieht man die Ergebnisse dann jeweils gemittelt für die ausgewählte Partei (bzw. alle Parteien, wenn keine ausgewählt ist).

Select Party

Wähle eine Partei aus

Alle

Wähle einen Kandidat aus

If you wish: select a candidate



3.2

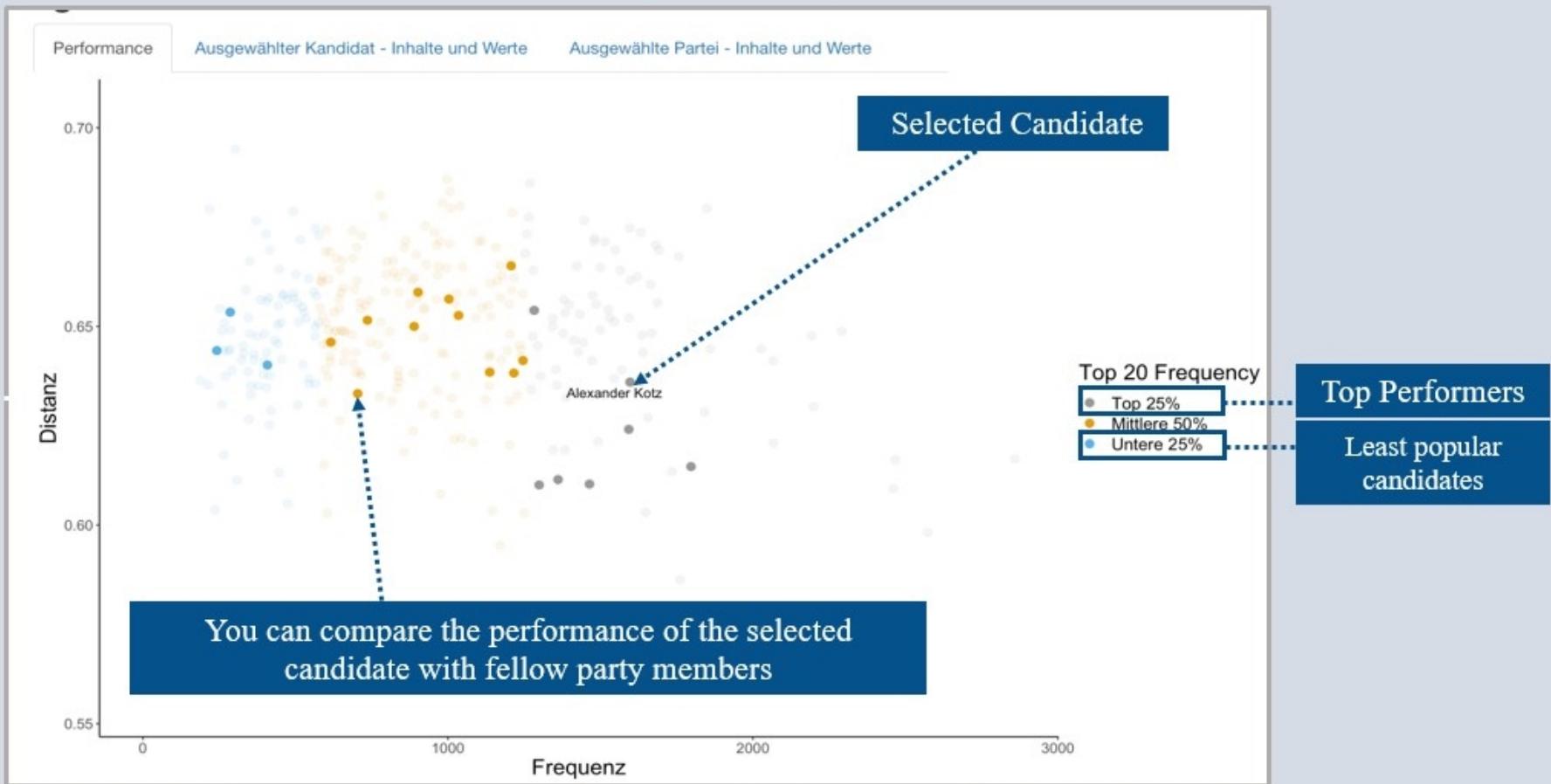
## User vs. Candidate statistics

A step to step introduction to our Shiny Dashboard



Step 2

Distance: measures the (average) closeness of the responses between the candidates and the users



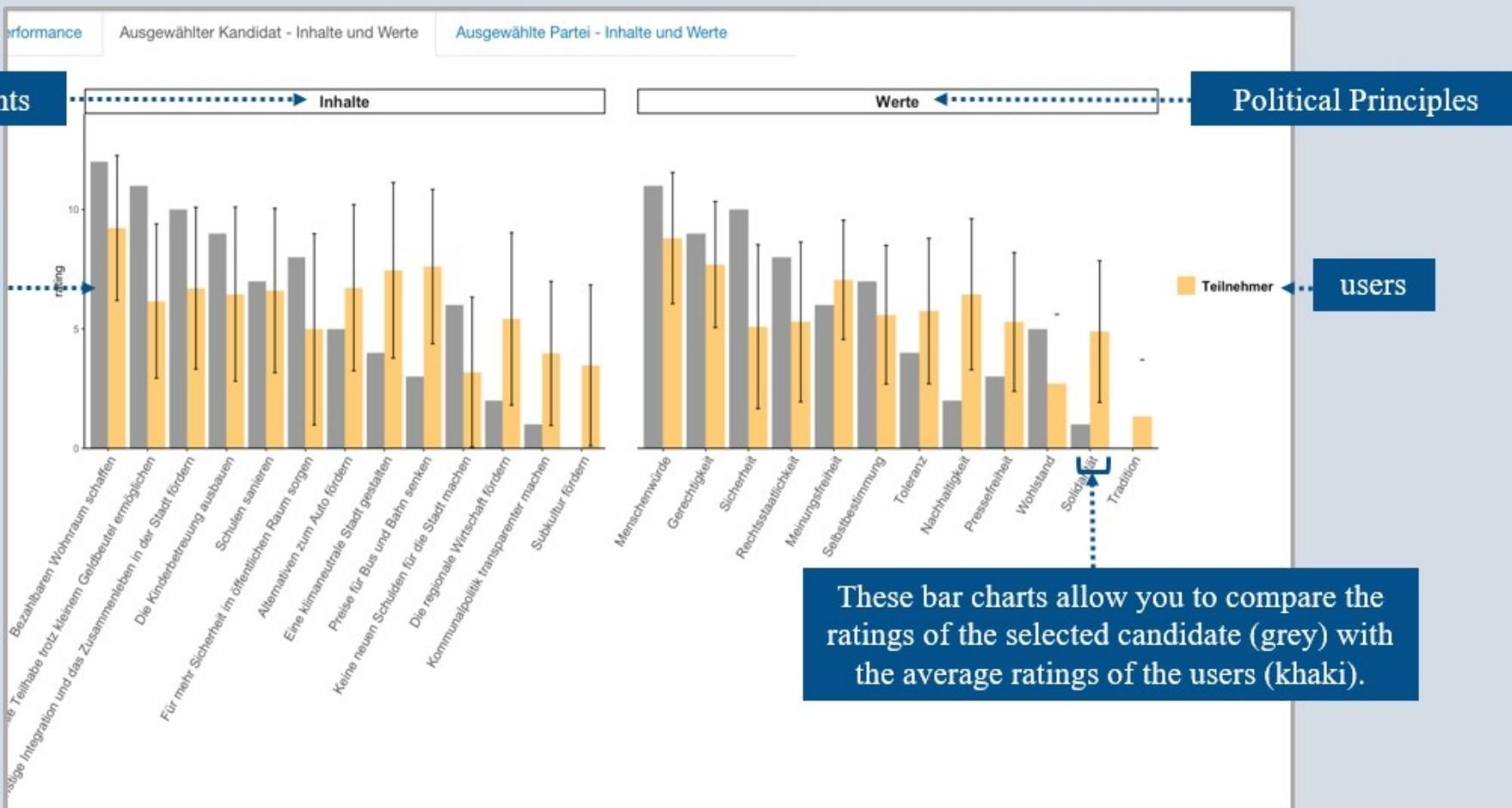
3.2

# User vs. Candidate statistics

A step to step introduction to our Shiny Dashboard

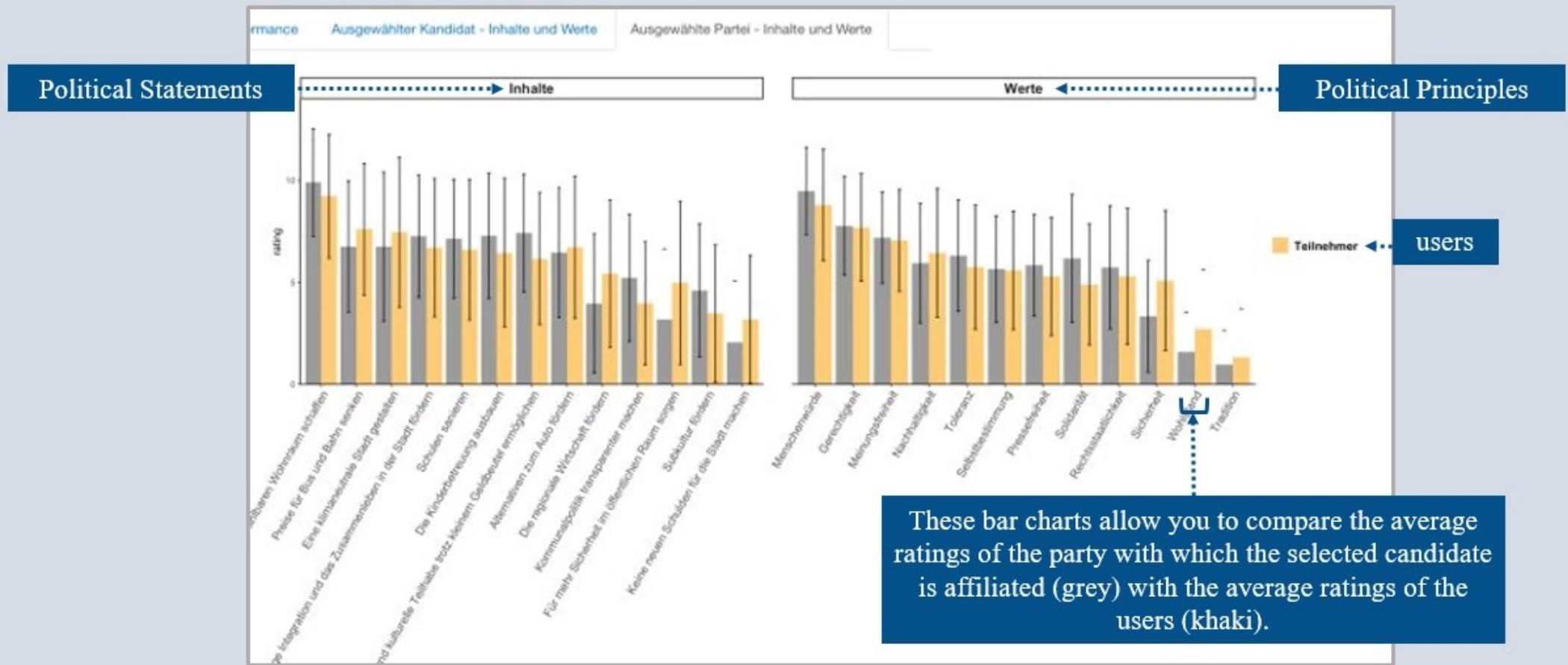


Step 3

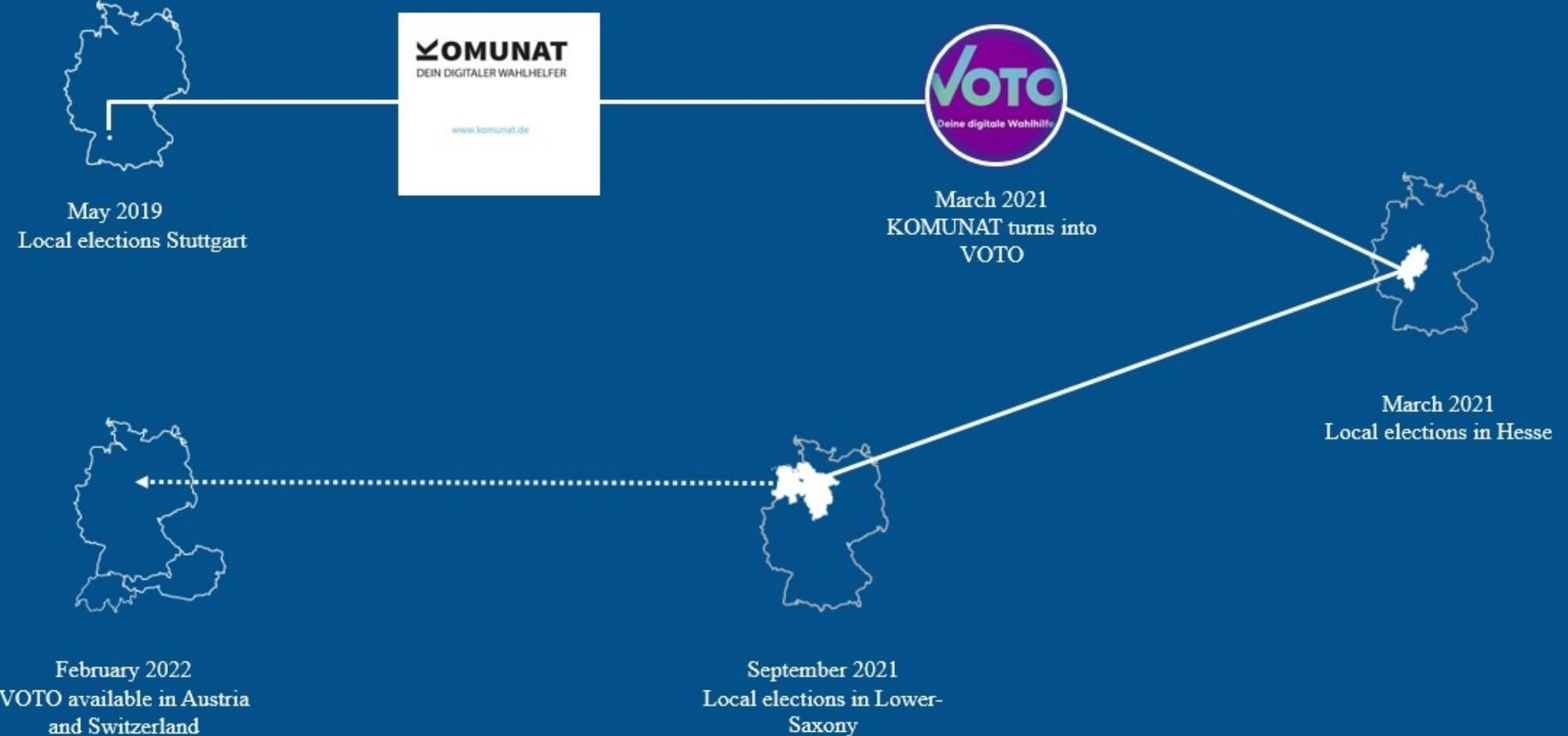




## Step 4



...and the journey continues...



## Presenters:

Aylin Kallmayer



 @aylinsgl

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## Co-Researchers:

Philipp Dederichs



 @pmhd

Julian Berger



 @BergerBerger

## Previous Project presentation:

[CorrelTalk Podcast](#)



(in German)