

# INFORMATION TECHNOLOGY

## - The Nervous System of the Smart City

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32<sup>nd</sup> CIRIEC INTERNATIONAL CONGRESS, LIÈGE (BELGIUM)

# Mag.<sup>a</sup> Ulrike Huemer

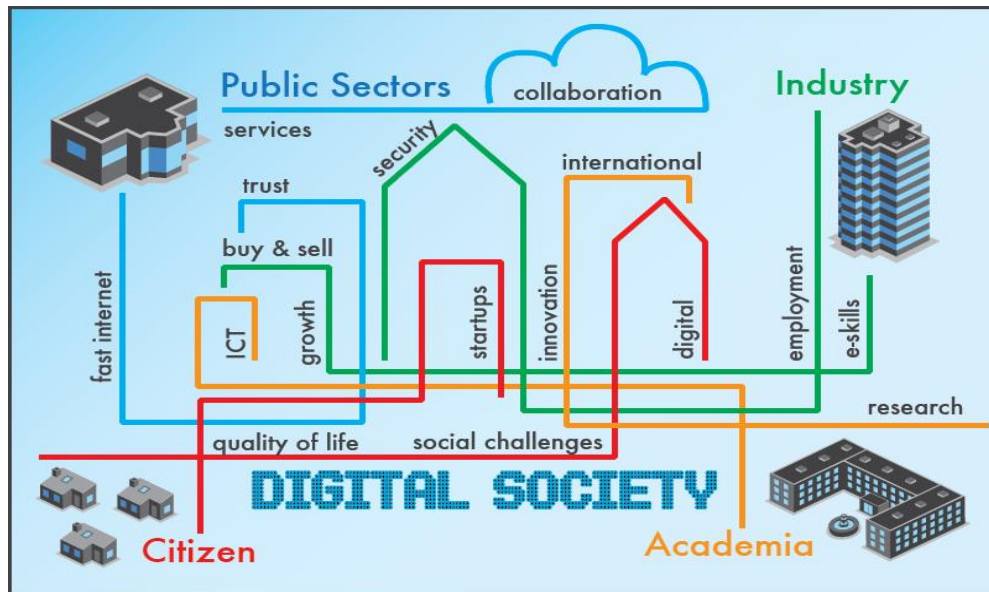
## Chief Information Officer (CIO)



City of Vienna – Chief Executive Office  
Executive Group for Organisation, Safety and Security  
Process Management and ICT Strategy

# DIGITAL REVOLUTION

A CHALLENGE FOR ALL OF US!



# KEY DATA OF VIENNA

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- ❖ City, state and municipality
- ❖ 415 km<sup>2</sup> - 23 districts
- ❖ Population: 1.868.000
- ❖ 82,000 city administration staff
  - 30,000 civil servants
- ❖ 13.9 billion Euro budget
- ❖ 220,000 city-owned appartements
- ❖ 400 primary & vocational schools
- ❖ 12 hospitals
  - 9000 hospital beds



# RANKING



1<sup>st</sup> place  
most successful city



1<sup>st</sup> place  
best conference city



1<sup>st</sup> place  
best liveable city



3<sup>rd</sup> place  
most innovative city



3<sup>rd</sup> place  
Smart city (EU)



1<sup>st</sup> place  
most admired  
Knowledge City

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## ▮ PRINCIPLES OF VIENNA

- Trust & security
- Participation
- Citizen orientation

## ▮ IMPLEMENTED PROJECTS

- Mobility - Wiener Linien
- Energy & Blockchain - Wien Energie
- IoT Applications - Wiener Stadtwerke, City of Vienna
- AI & Health - Vienna Hospital Association
- Apps, Services and participation - City of Vienna

# PRINCIPLES OF VIENNA

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# PRINCIPLES OF VIENNA

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1. **Trust & security**
2. Transparency, openness & **participation**
3. Inclusion, solidarity & social sustainability
4. Gender equality
5. **Citizen orientation**
6. Strengthening the business location
7. Consolidation
8. Innovation
9. Flexibility & learning

# CITIZEN ORIENTATION

City as a Service

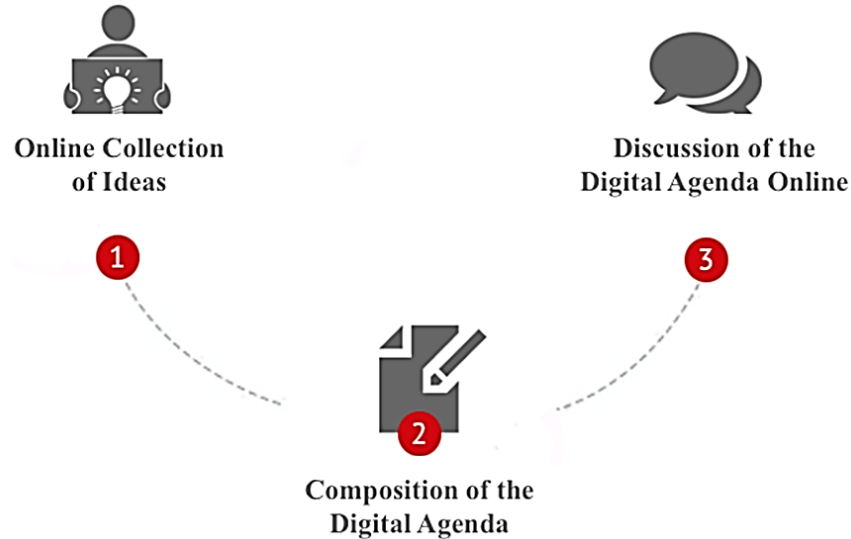
Adapting processes to  
changing lifestyles

Online availability: 24/7

“We give people Time”



# PARTICIPATION



active involvement of  
citizens



creative & innovative  
solutions



modern & service-  
oriented administration

# PARTICIPATION

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Auf diesen Seiten finden Sie das Partizipationsportal der Stadt Wien. Bürgerinnen und Bürger sind aufgerufen im Dialog mit der Wiener Stadtverwaltung zu wechselnden Fragestellungen ihre Gedanken auszutauschen, Ideen zu sammeln und Feedback zu geben. Regelmäßig vorbeisurfen zählt sich aus: Neue Beteiligungsmöglichkeiten werden laufend online gestellt.

Nach einer einmaligen **Registrierung** können Sie bei allen künftigen öffentlichen Diskussionen teilnehmen.

*Gemeinsam machen wir Wien. Persönlicher. Vernetzter. Und noch ein bisschen smarter.*

## DISKUSSIONEN

# TRUST & SECURITY

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does google have my social security number?

Google Search

I'm Feeling Lucky

# IMPLEMENTED PROJECTS

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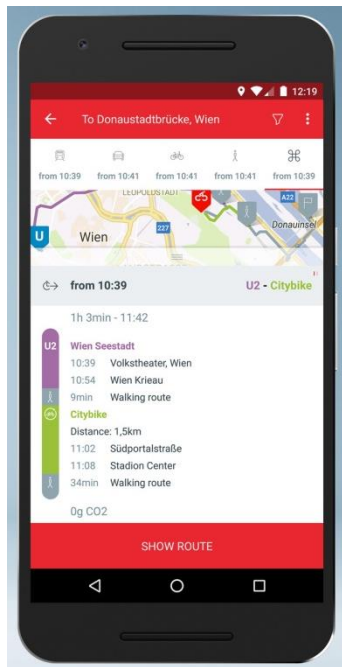
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# Mobility – Wiener Linien



## WienMobil app

- ❖ Route planning & ticket service
- ❖ Combines various forms of mobility (public transport, carsharing, bike, taxi, walking)
- ❖ Information source: environmental impact, construction work or delay



# Energy & Blockchain

## – Wien Energie

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### Gas trading

- ❖ 2017 Proof of Concept
- ❖ first real trade worldwide
- ❖ Plattform Enerchain
- ❖ Vision: smart contracts

### Project “Viertel Zwei“

- ❖ Market research with residents of newbuild quarter
- ❖ Participation and data collection for new products
- ❖ Solar energy, battery, public charging station, smart metering
- ❖ Blockchain infrastructure (wallets, hardware, ...)

# IoT Applications

- ❖ 2018 - IoT strategy paper
- ❖ WAALTeR – Active Assisted Living
  - fall detection
  - measurement of blood pressure
  - blood sugar data
- ❖ Climate & traffic control
  - City of Vienna & Central Institution for Meteorology & Geodynamics (Recording & analytics)
  - 1.200 traffic lights, 10.000 sensors
  - Weather, heat, pollution, noise, etc.
- ❖ Drainage/sewer information system (Wien Kanal)



# IoT Applications

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## Wiener Stadtwerke

- ❖ IoT base set  
easy to use, cheap, basic sensors

## Wien Energie

- ❖ Temperature measurement  
district heat

## Wiener Linien

- ❖ Lubrication system  
Measuring filling level at  
railway switch

## Video analytics

## Wiener Netze

- ❖ perimeter security

## Wiener Lokal Bahnen

- ❖ Vandalism of ticket  
machine

## Bestattung Wien

- ❖ Counting visitors of  
Vienna Central Cemetery

# AI & HEALTH

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- ❖ Pilot project of Vienna Hospital Association
- ❖ Semantic search of unstructured data
- ❖ Processing health information and files for summary of patient history
- ❖ Vision: support in decision making via health data and medical knowledge

# APPS, SERVICES & PARTICIPATION

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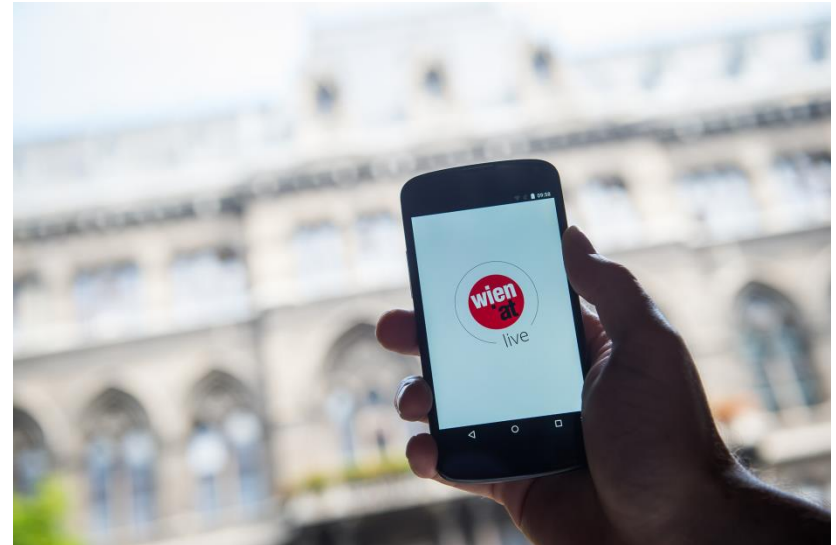
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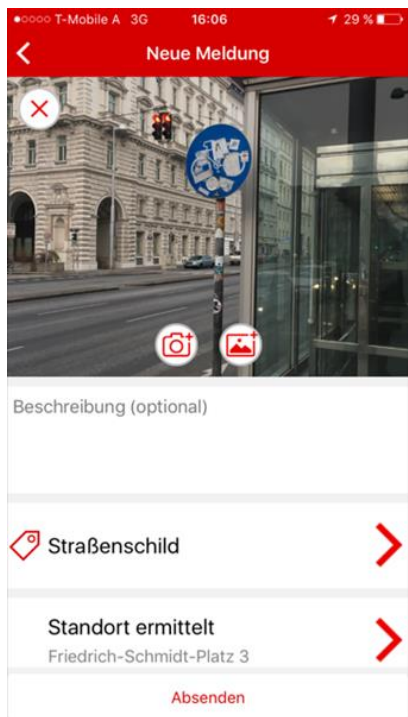
# WIEN.AT LIVE APP

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- ❖ Map of Vienna
  - Online & Offline
- ❖ Free WIFI spots
- ❖ QR-Code Reader
- ❖ Realtime Information
  - Interruption of public transport
  - Events
  - Weather warning
- ❖ Hotlines



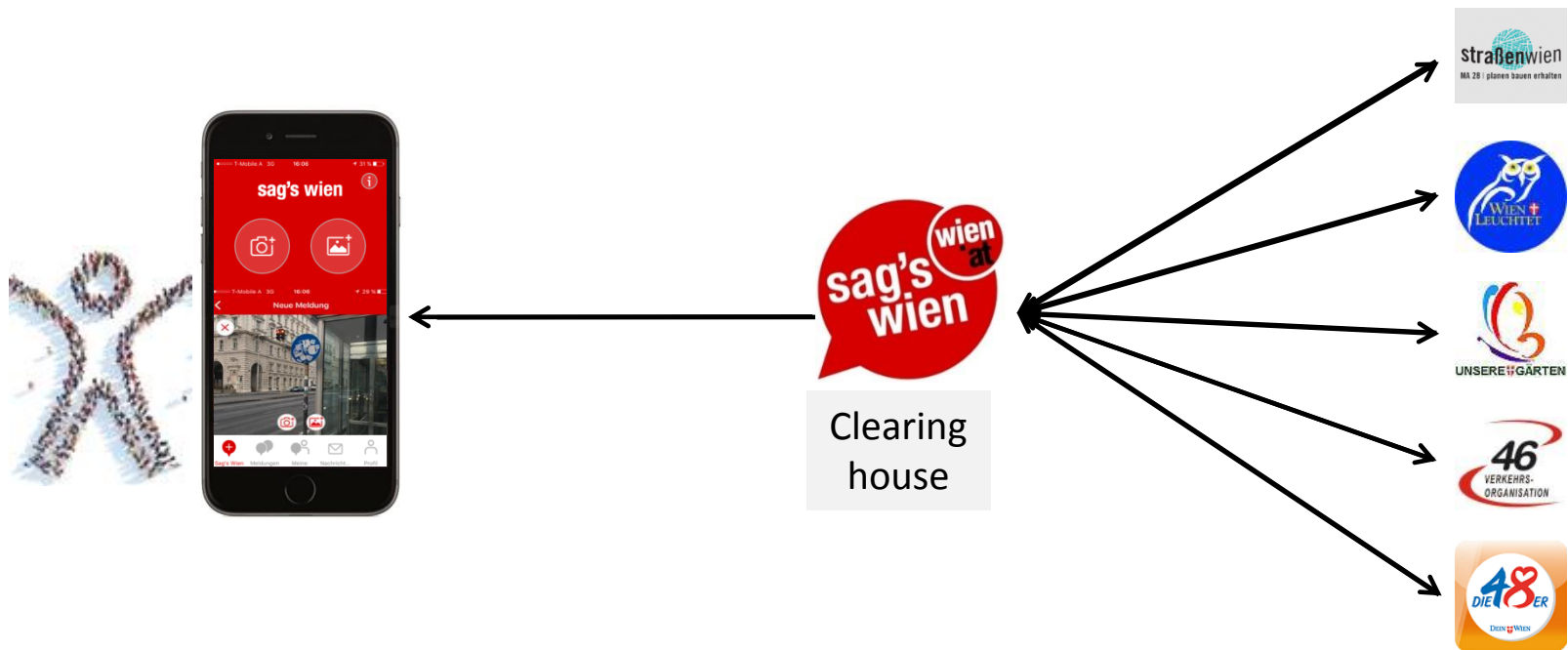
# THE APP „TELL IT VIENNA“



- ❖ Online since February, 2017
- ❖ Easy & fast handling (7 clicks, 30 seconds, without registration)
- ❖ Automatical push-updates
- ❖ GPS-positioning via basemap or by entering address
- ❖ Interaction: messages from other citizens are public
- ❖ 28.680 downloads
- ❖ 21.717 messages

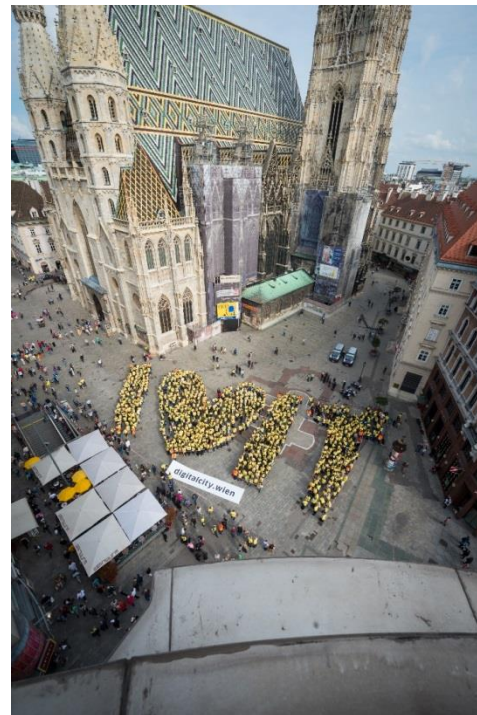


# INTEGRATED DIGITAL PROCESS



# DigitalCity.Wien

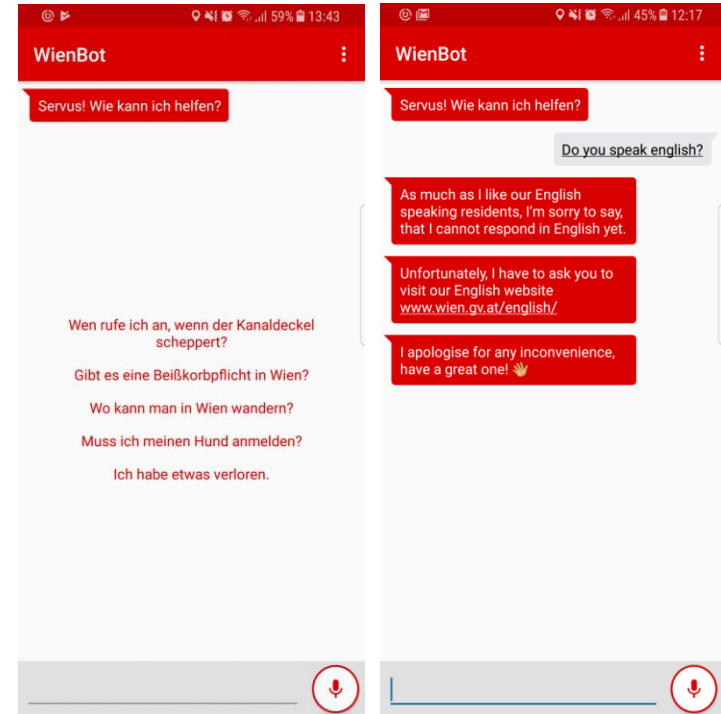
- Started in 2014 as an independent initiative of the administration of Vienna & committed IT companies
- Raise public awareness in the importance of IT in Vienna
- Main Projects 2016: education initiative, women in IT, etc...
- Close contact and interaction with startups and developers
  - GovTech-Conference 05/ 2018



# VIENNA'S CHATBOT

## WienBot

- Official city of Vienna chatbot
- for all kinds of service requests

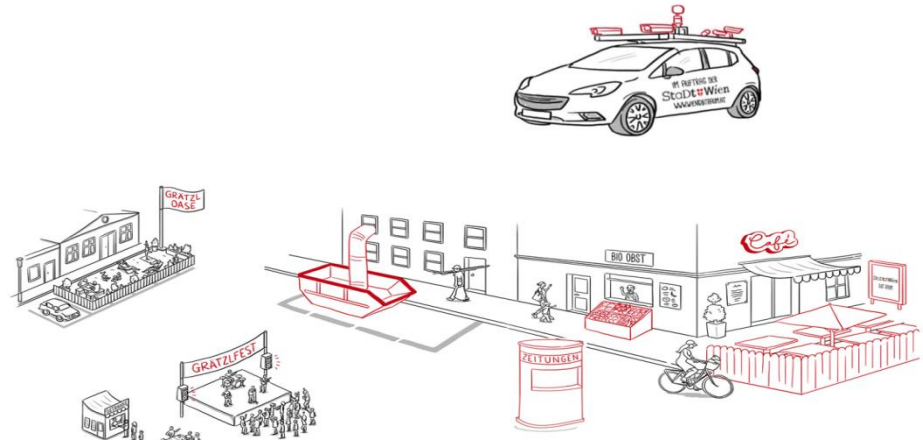


# PROJECT „SHARING PUBLIC SPACES“

- ❖ Public spaces and streets are photographed by camera cars
- ❖ Image data can be used by departments of the Vienna City Administration (Q3/2018)
- ❖ Main Goal: Less on-site inspections during official procedures
  - Construction site
  - Pavement café
  - Billboard
  - Neighbourhood parties

❖ Explanation video [link](#)

[www.WienGibtRaum.at](http://www.WienGibtRaum.at)







**THANK YOU FOR YOUR ATTENTION!**

**digitalcity.wien**