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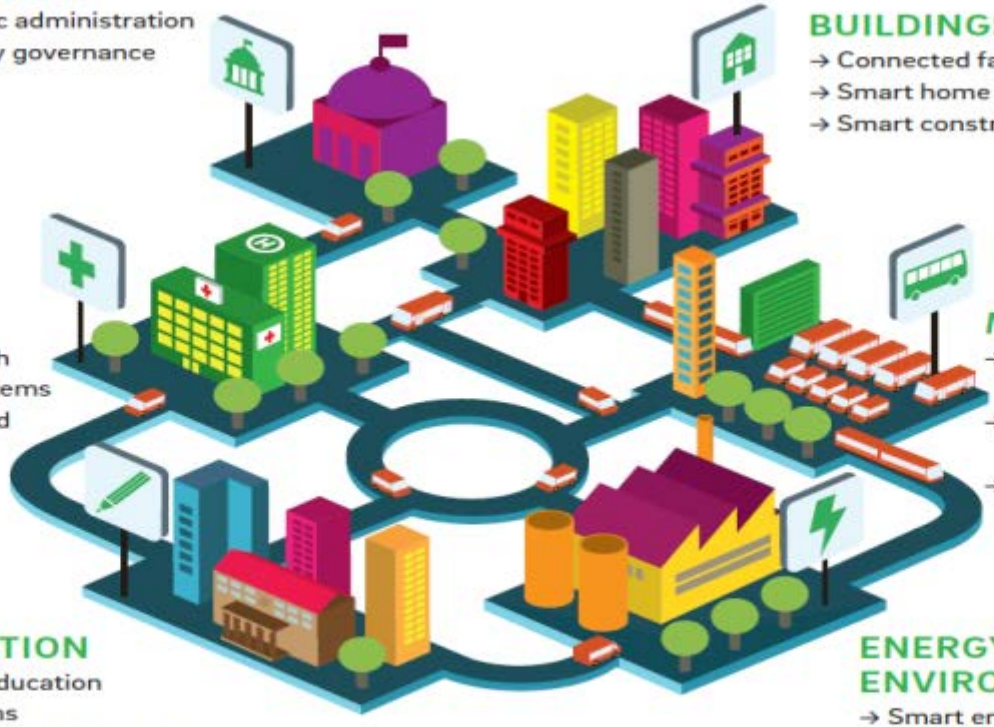
Deutsch-Kroatische
Industrie- und Handelskammer
Njemačko-hrvatska industrijska
i trgovinska komora

Innovations from Germany:
Smart City Concepts and Examples

Sven Thorsten Potthoff
Director, German-Croatian Chamber of Industry and Commerce

GOVERNMENT
→ Digital public administration
→ Participatory governance
→ E-services

BUILDINGS
→ Connected facility management
→ Smart home
→ Smart construction



HEALTH
→ Telemedicine
→ Integrated health information systems
→ Ambient assisted living

MOBILITY
→ Intelligent traffic management systems
→ Smart services for public transport
→ Smart urban logistics

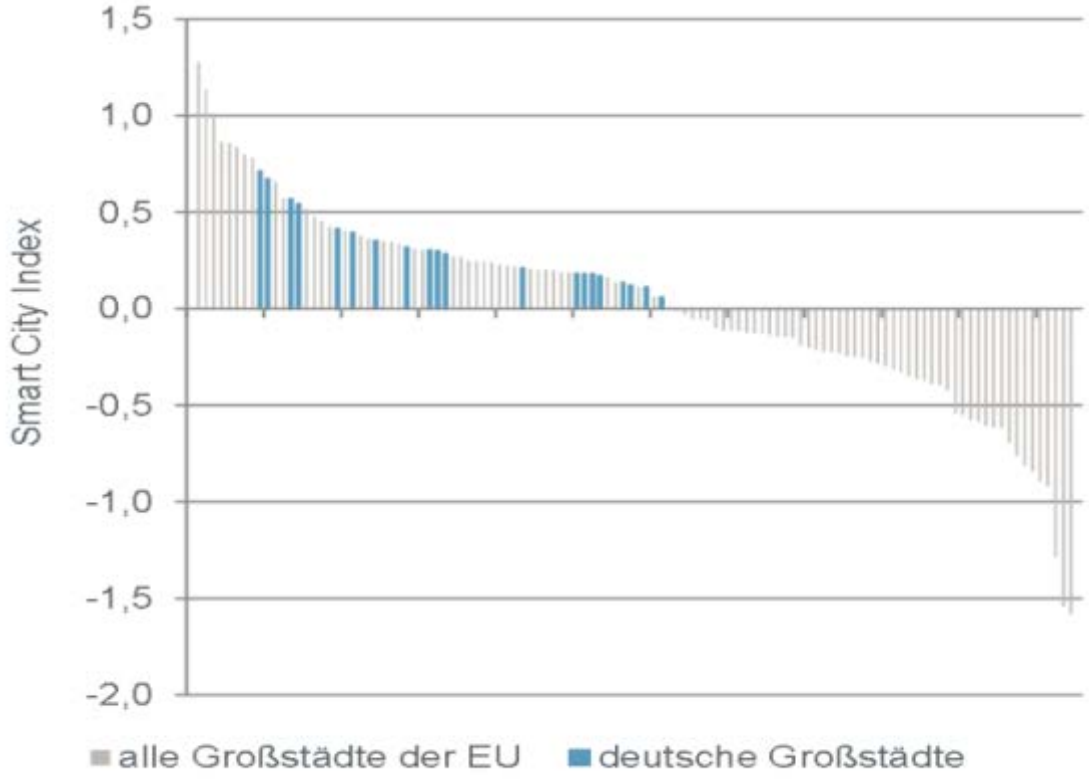
EDUCATION
→ Urban education platforms
→ Digital learning formats
→ Digital skills

ENERGY AND ENVIRONMENT
→ Smart energy
→ Smart water management
→ Smart waste management

Source: Roland Berger

German (Smart) Cities:

- Rank in total above EU average
- The gap to the European top-group is still visible



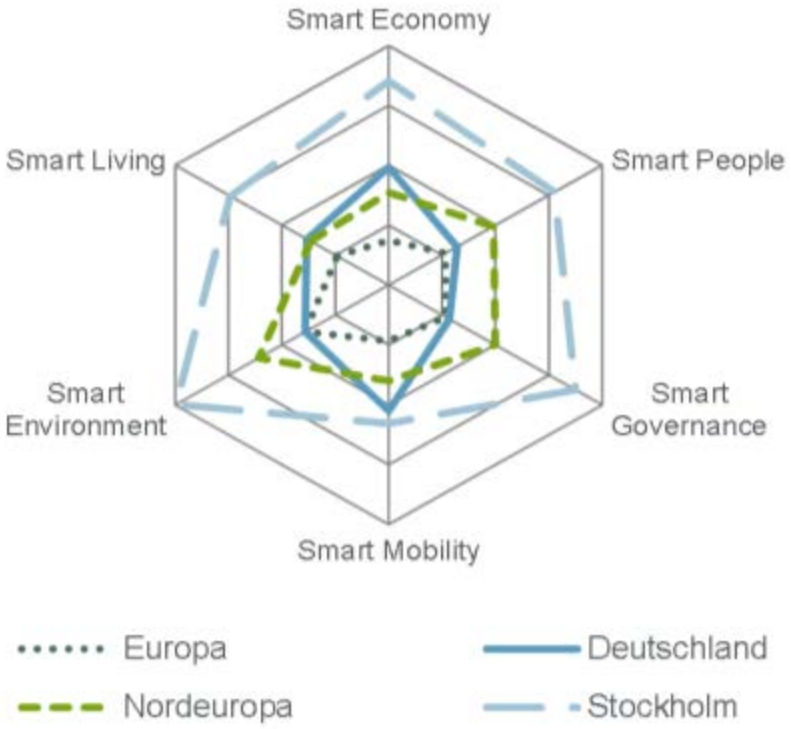
Remark: Positive results represent above-average ratings

Source: Smart-cities.eu, Easypark 2017 Smart City Index; kfw.de

Results for 2015:
- German cities perform better than European average in all dimensions

Above average:
- Smart People
- Smart Governance

Smart Mobility:
- Comparable with Stockholm



Source: smart-cities.eu
Calculations: kfw.de

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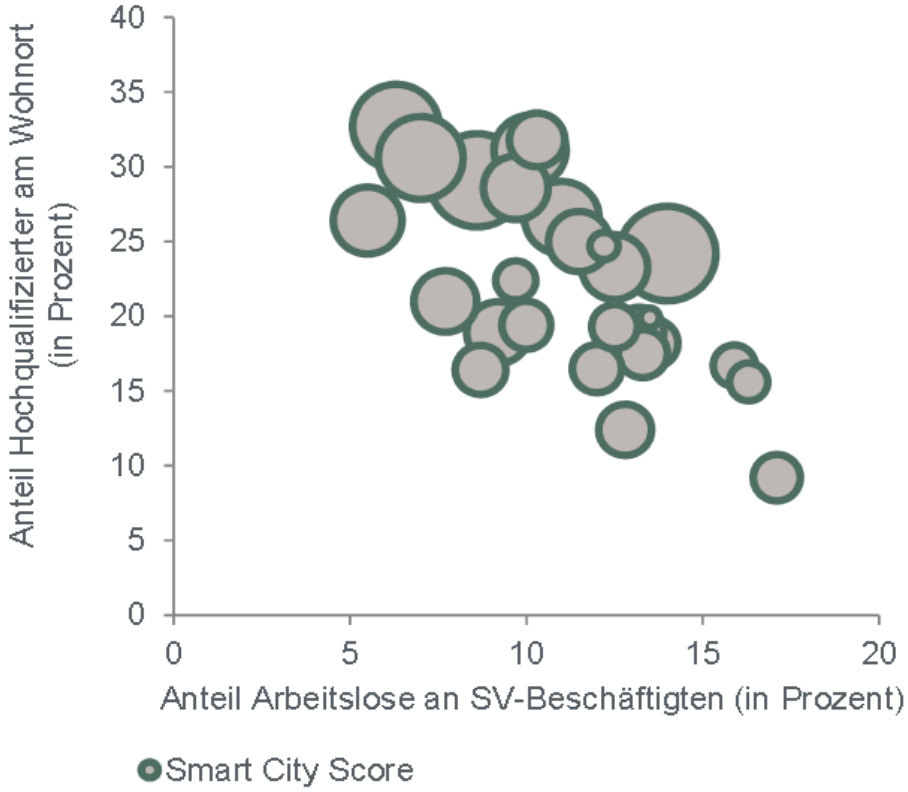
The relationship between the Smart City Performance and the economic power:

- 27 German cities
- Positions at the top left rand reflect many highly qualified and few unemployed; at the lower right rand the opposite
- Better rated German smart cities tend to account for a high proportion of qualified resident and low unemployment respectively



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SmartCity.Berlin
The future starts here

Network Smart City Berlin –
Integrator of Urban Transformation Process

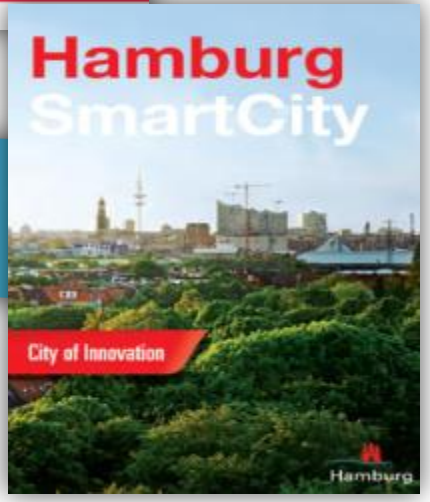
ASC
Aachener Smart City e.V

Landeshauptstadt München
SMARTER TOGETHER
Smart City Munich

Smart City Freiburg
By Smart City Atlas by Bitkom on 19.03.19 09:51

Smart City
— Leipzig

Hamburg
SmartCity



smart country
convention

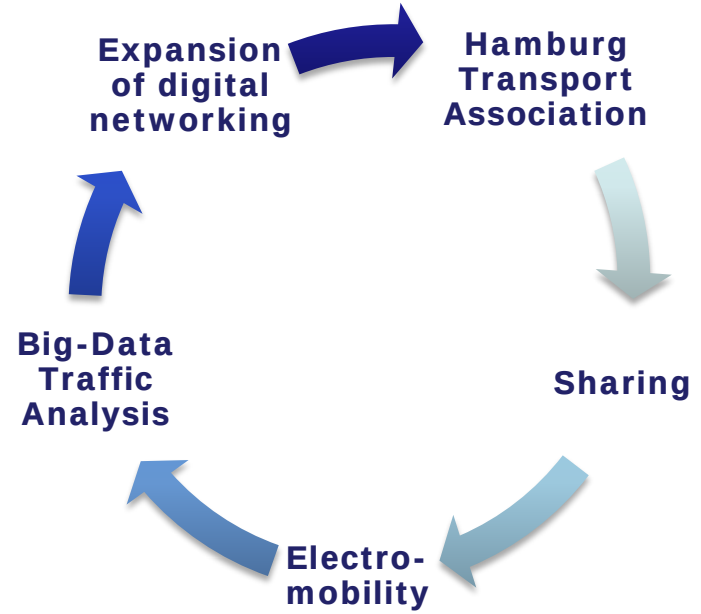
SMART COUNTRY

Smart City

Germany: Leipzig Smart City Strategy

By Tilla | December 12, 2018

Hamburg & Urban mobility



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HEAT - Hamburg Electric Autonomous Transportation

- Autonomous minibuses with electric drive
- Perspective: becoming part of public transport
- 16 places; developed by IAV

T-Systems: Park and Joy

12,000 parking spaces equipped with sensors

E-Mobility:

- Charging infrastructure & power network to be thoroughly digitized
- Stromnetz Hamburg GmbH installing:
  - 200.000 intelligent controllers
  - over 105.000 smart meter systems
  - over 85.000 charging applications

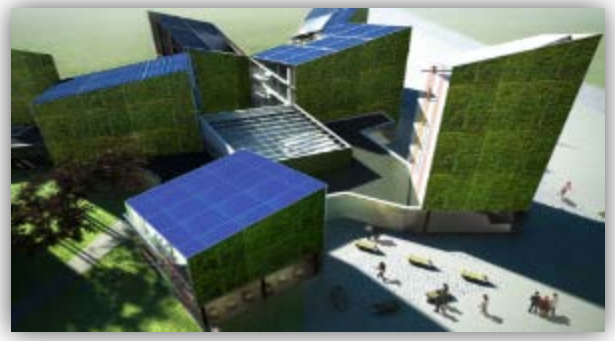
smartPORT – The Intelligent Port of Hamburg

- Navigation in real-time
- The mobile all-purpose sensor
- Parking for pro-fessionals
- Virtual depot

Developers: The Hamburg Port Authority (HPA), Deutsche Telekom and SAP

Berlin

- Leading region for electric mobility
- Leader in car sharing
- Berlin-Adlershof - model neighborhood Future Living Berlin:
  - 69 residential units; flow of electricity and heating is self-regulating
  - circulatory system



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Berlin – 5G Playground

Munich – Smarter Together Project

- Funded by te EU Commission the Munich local government
- Key questions about the future of urban development
- Technology and data intelligence → future of urban development; energy efficiency
- „Living Labs”

Goal:

- To reduce co2 emissions by more than 20%
- To generate more than 20% of energy from renewable sources
- To improve energy efficiency by more than 20 %
- Neuaubing-Westkreuz district

Munich – Smarter Together Project

E-Mobility Stations:
Electric bicycles, tricycles, rental cars

Quartier-Boxes

Intelligent Light Poles

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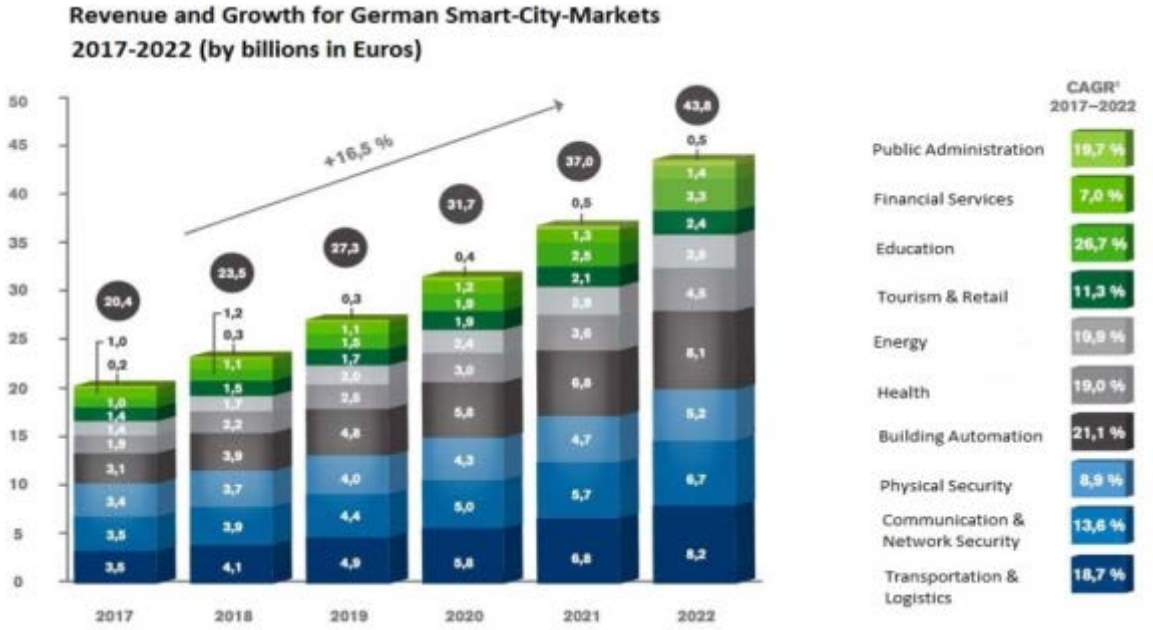
Göttingen

- Rank Nr. 1 in Germany (EU Smart City Ranking)
- University / Industry
- IT Innovation Cluster Göttingen / Southern Lower Saxony
- Its own digitalization strategy

City Council digitalization

E-Mobility – electric bus supplied by batteries

- 2014-2019 - USD 23.6 billion available for German cities and municipalities
- Horizon 2020 funds – supporting regional innovation



Source: https://www.export.gov/article?id=Germany-Smart-Cities

Perspectives & Challenges

- Data sovereignty / protection of privacy
- Who owns the data?
- Operational risks
- New investments & Costs

- Germany as technology leader
- Innovative digital technologies
- Improving quality of life

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Thank you!