Copenhagen Smart City

Kim Spiegelberg
Acting head of Digitalization
The Technical and Environmental Administration
MORE COPENHAGENERS - LESS CARBON EMISSIONS
ROOM FOR GROWTH

- NØRRE CAMPUS 2003-2020
- DAVID BUS LANE 2014
- METRO TO NORDHAVN 2018
- NORDHAVN 2012-2050
- SPACE FOR FURTHER:
  - 60,000 m² homes
  - 200,000 m² new commercial construction

- CARLSBERG 2009-2035
- SPACE FOR FURTHER:
  - 300,000 m² homes
  - 300,000 m² new commercial construction

- VALBY SYD 2005-2030
- SPACE FOR FURTHER:
  - 350,000 m² homes
  - 350,000 m² new commercial construction

- SYDHAVN 1999-2025
- SPACE FOR FURTHER:
  - 650,000 m² homes
  - 80,000 m² new commercial construction

- ØRESTAD 1999-2030
- SPACE FOR FURTHER:
  - 800,000 m² homes
  - 1,200,000 m² new commercial construction

- HARBOUR BATHS
- OPERA ROYAL DANISH PLAYHOUSE
- BIKE BRIDGES

- ROOM FOR GROWTH

2012 - 2050

- 2025 CARLSBERG VALLEY SYD
- 2030 ØRESTAD
- 2025 SØSTROM & NØRRE CAMPUS

Copenhagen Airport
THE COPENHAGEN STORY

• The smart city has sustainability, growth and quality of life as a solid foundation

• The smart city requires innovative partnerships and technological development

• The smart city uses the data generated within the city for creating intelligent, resource optimized and energy efficient solutions for the users of the city

• The smart city has innovative solutions spanning all city services and involves the city, citizens, users, businesses and knowledge institutions as active participants in creating new and smart city solutions

• The smart city is a test facility for testing new technology

• The smart city attracts businesses and a highly skilled workforce
WORLD’S BEST CITY FOR CYCLISTS
CARBON NEUTRAL  CAPITAL
A GREEN AND BLUE CITY
A CLEAN AND HEALTHY CITY
COPENHAGEN SMART CITY

- Smart City Steering Committee
- Cooperation across 7 administrations
- 1 strategi for Smart City
- 2 main projects
VISION FOR DATA.KK.DK
- a holistic approach to distribution, use of data

Improve own decision making
Enable holistic overview, better planning, improved transparency and build enterprise-wide architecture and processes for doing so

Create a data marketplace
Promote innovation, creativity, inclusion and solve challenges through public/private cooperation

Support political and strategic initiatives
Support green growth, innovation, sustainability, job creation, ITS, Smart City, green urban planning etc.

Improve public-private partnerships
Coordinated urban development and infrastructure improvement, optimized resource usage etc.
OUR REALITY

560,000 citizens
+ 45,000 employees
= complex city
= complex system and data landscape
2013 – FIRST TRIALS-PARKING
- get first hand experience through cooperation

A challenge

Build prototypes

Sketch concepts

Make data available
CKAN is a complete open source software solution for data publishers (national and regional governments, companies and organizations) that makes data accessible, by providing tools to streamline publishing, sharing, finding and using data.
STRUCTURING THE UNSTRUCTURED
- find, organize, distribute and use data

- Transportation
- Environment
- Economy
- Parking
- Events
- Health
- Education
- Energy
- Assets
- Population
- Activities
- Employment

... cars per minute ...
... employees in health ...
... population growth 2013 ...
... cost of education ...

Data!

data.kk.dk
THE NEXT INFRASTRUCTURE

1700- 1800- 1900- 2000- 2013-
DATA CONNECTS THE CITY

- Sensors: Water, air, pollution etc.
- Buildings Consumption Data
- Movement Patterns
- Real Time Traffic Monitoring
- Free WiFi for Tourists
- Tracking of Equipment
- Parking Info in Real Time
OPTIMIZING TRAFFIC FLOW

OVERVIEW OF MAJOR EVENTS

AMBULANCE ON THE ROAD

BUS DELAY

DYNAMIC PRICING OF PARKING

DYNAMIC PRICING OF TRAFFIC

SMART CITY GRID
WEATHER DATA

REALTIME MONITORING OF AIR, NOISE ETC.

HUMIDITY AND PRESSURE

REAL TIME MONITORING CO2

REAL TIME MONITORING GARBAGE

Smart Grid sensor platform
REAL TIME ROUTE PLANNING

Realtdsdata fra sensorplatformen
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