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DOLL Living Lab
Visitor Center



DOLL

Lighting Up the Future of Smart Cities

Greater Copenhagen

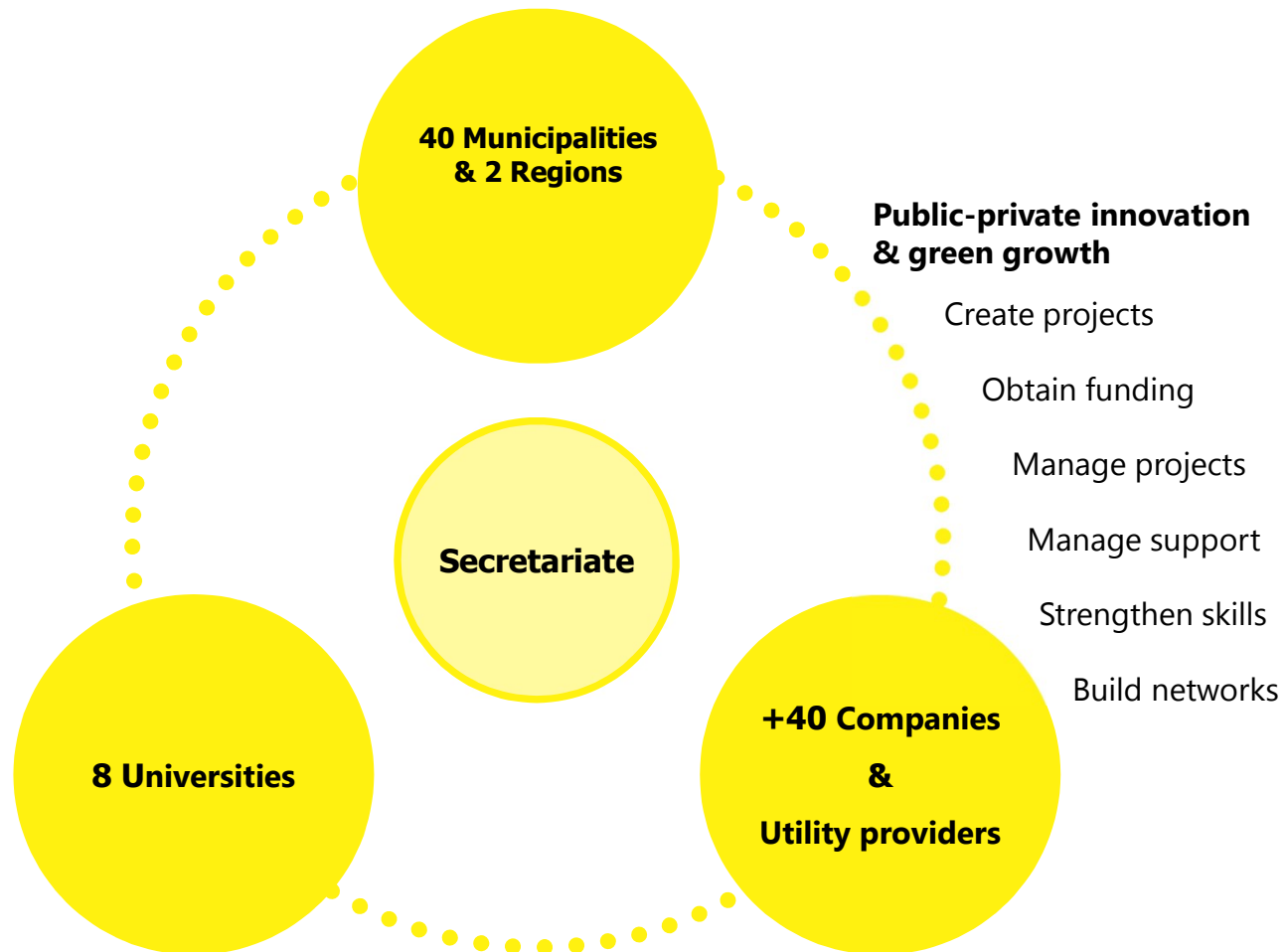


39 Municipalities

8 Universities

38 Companies & Utility providers





GATE 21 IS WORKING WITH

PROJECTS

Gate 21's six programs are based on climate and energy challenges, both regional and local, and are reflected in the focus areas Buildings & Cities; Transportation; Energy; Circular Economy; Green Growth and Smart City.

In the focus areas, we develop new technologies, services, platforms, tools, processes and skills that support local efforts towards green transition and business opportunities for green growth.

TRANSPORT

BUILDINGS &
CITIES

ENERGY

CIRCULAR
ECONOMY

SMART CITY

GREEN
GROWTH

LIVING LABS

Gate 21 will help to establish, coordinate and profile Living Lab activities and cooperation with key stakeholders and partners, as well as existing initiatives.

In addition to the strong network forged between partners who participate in projects and Living Labs, Gate 21 has a number of forums and events for partners and members.

NETWORK & KNOWLEDGE

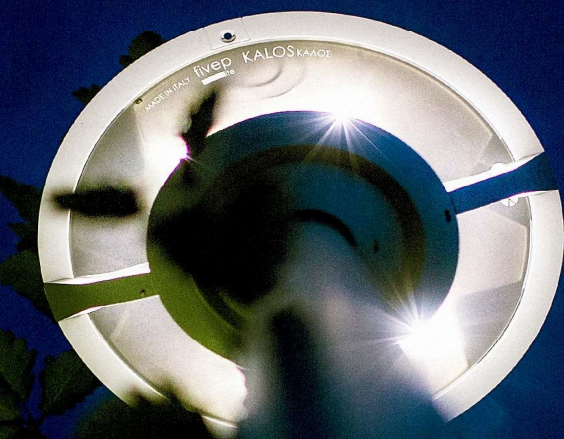


FUNDING PROVIDERS:



CONSORTIUM PARTNERS:

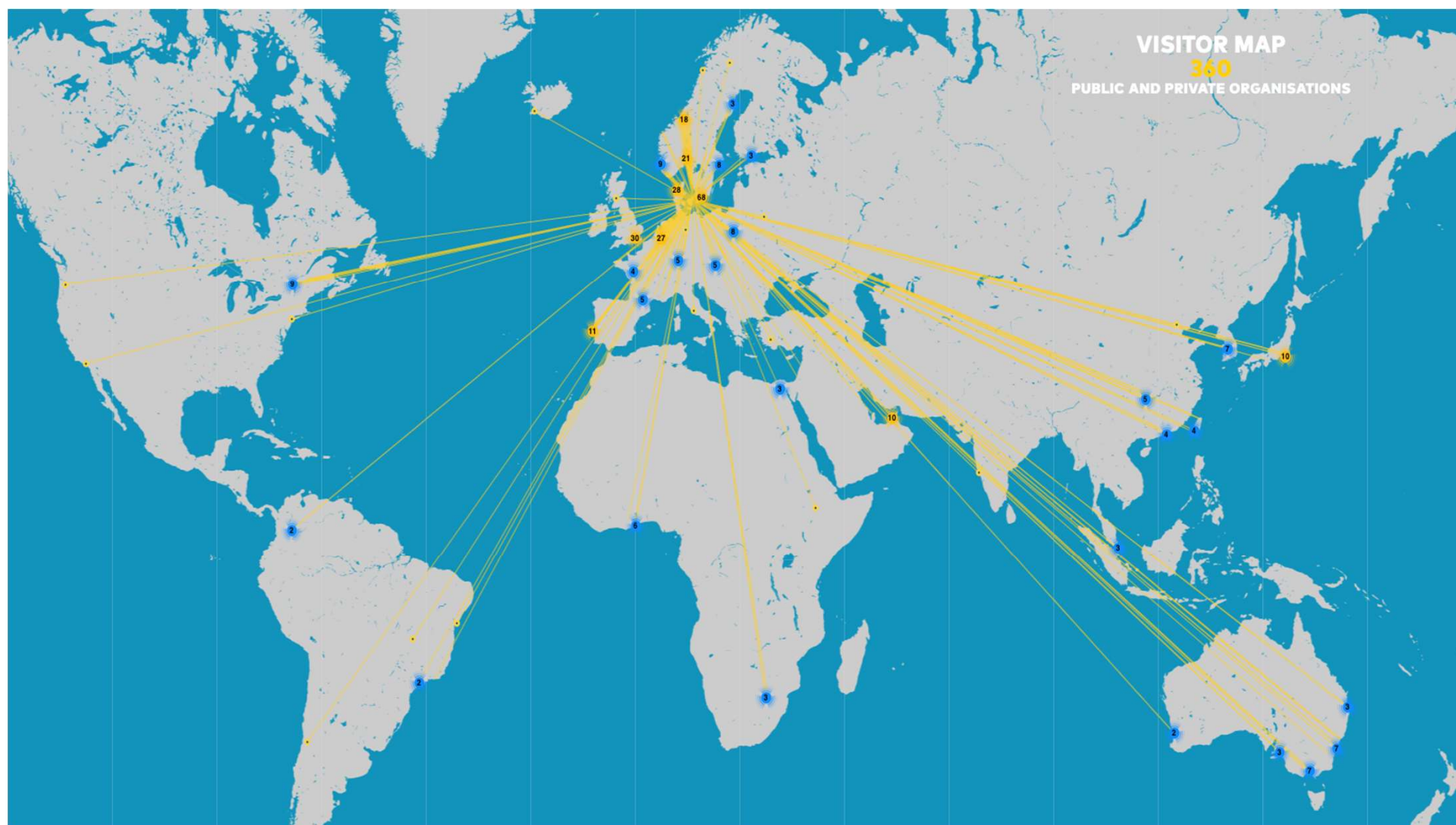




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DOLL Living Lab

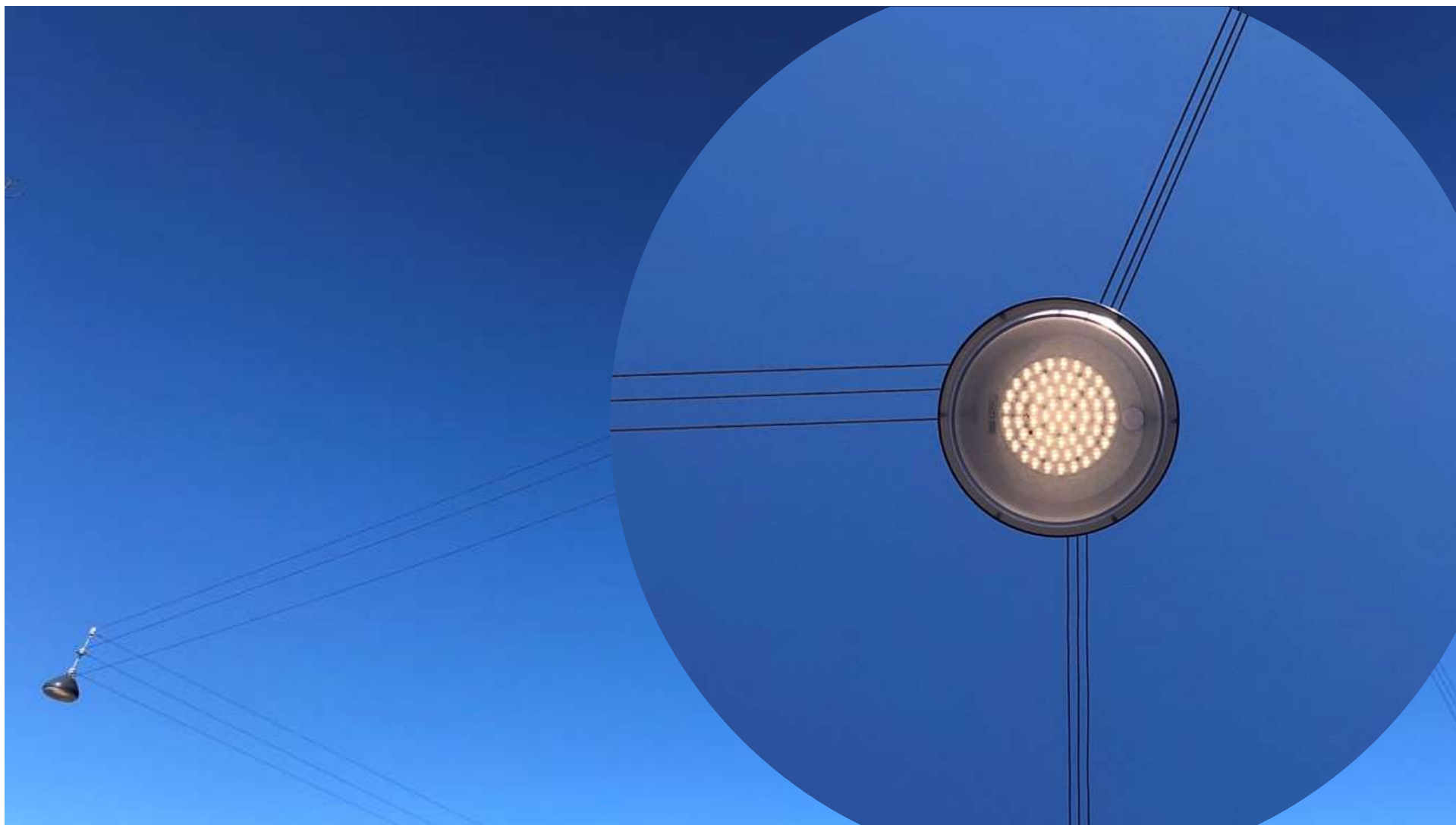




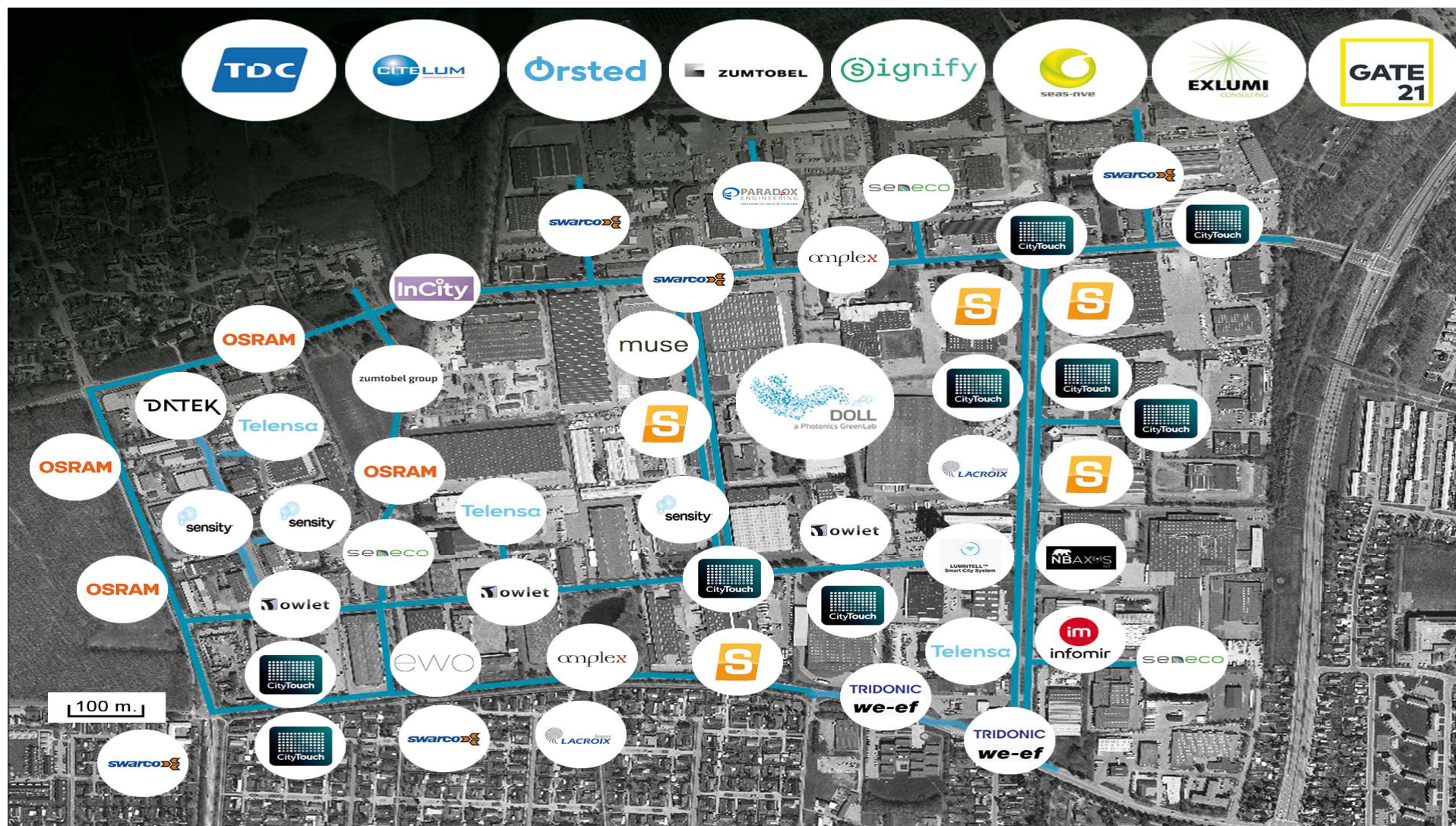
Largest facility in Europe



- **Location:** A suburb to Copenhagen, industrial/commercial area, 10.000 employees
- **Area:** 1,5 km², 12 kilometres of road and bicycle lanes, our sandbox environment
- **Zones:** 49 zones with Lighting and smart city-technology
- **IoT-infrastructure:** 8 types of digital networks
- **Sensor network:** For waste, parking, air quality, noise, temp., etc.
- **Intelligent lighting network:** 435 connected light points, IP-address, real time control
- **Intelligent lighting solutions:** 80 different lighting lumieres
- **Management systems:** 20+ systems
- **Privat partners** 50+







Intelligent Light System

DOLL
a Photonics GreenLab

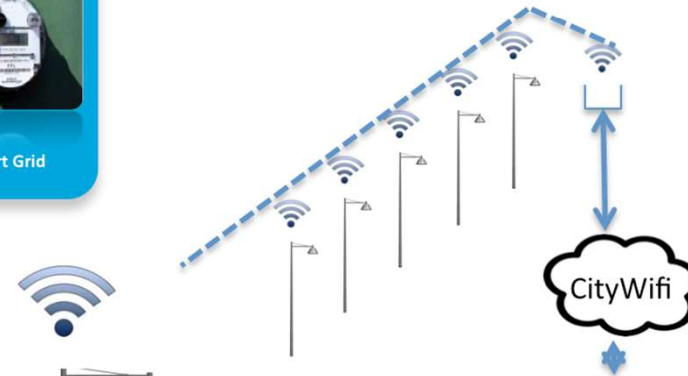
SENSING the WORLD...

- NO_x and CO
- Temperature
- Pressure
- Humidity
- Ambient light
- Rainfall
- Wind
- Particulate matter
- Radiation
- UVA/UVB

- Real-time location systems (RTLS)
- Ultrasound
- IR
- Power monitoring
- Motion
- Audio
- Video
- Accelerometer



Smart Urban Services



Innovation Platform



SOLUTION PROVIDERS, WASTE MANAGEMENT





Albertslund Kommune



GLADSAXE



Technical University
of Denmark



LOOP CITY



Autonomous Vehicles

CALL - Climate Adaptation Living Lab

DOLL
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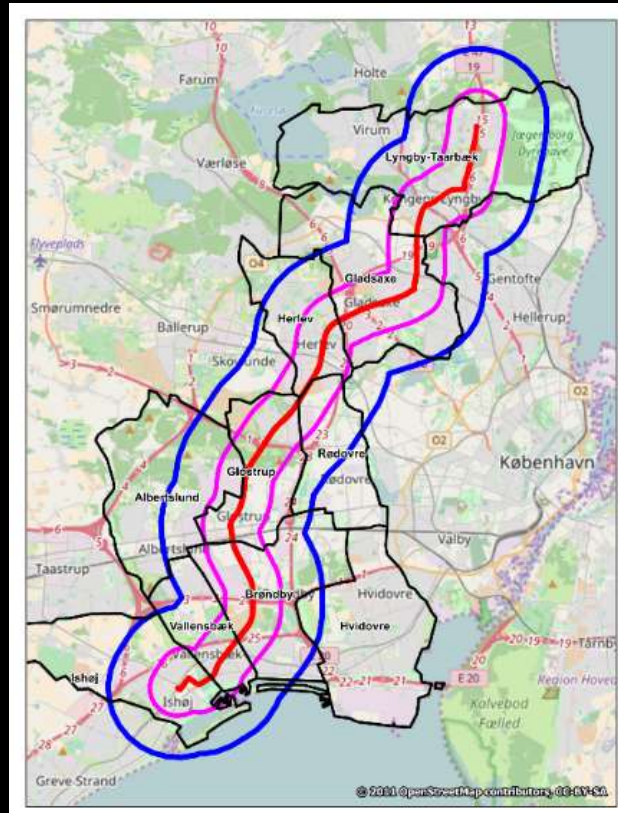
Energi & Vand Greater Copenhagen Living Lab



Regional Data Platform



LOOP CITY



Cities need to find new ways to enable citizen interaction and deliver services



Traffic Management



Public Safety



City Lighting



Pollution/
Environment

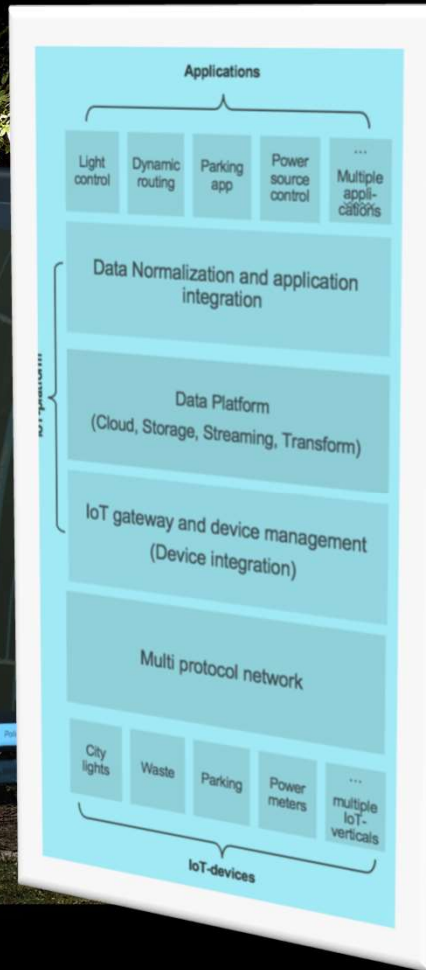


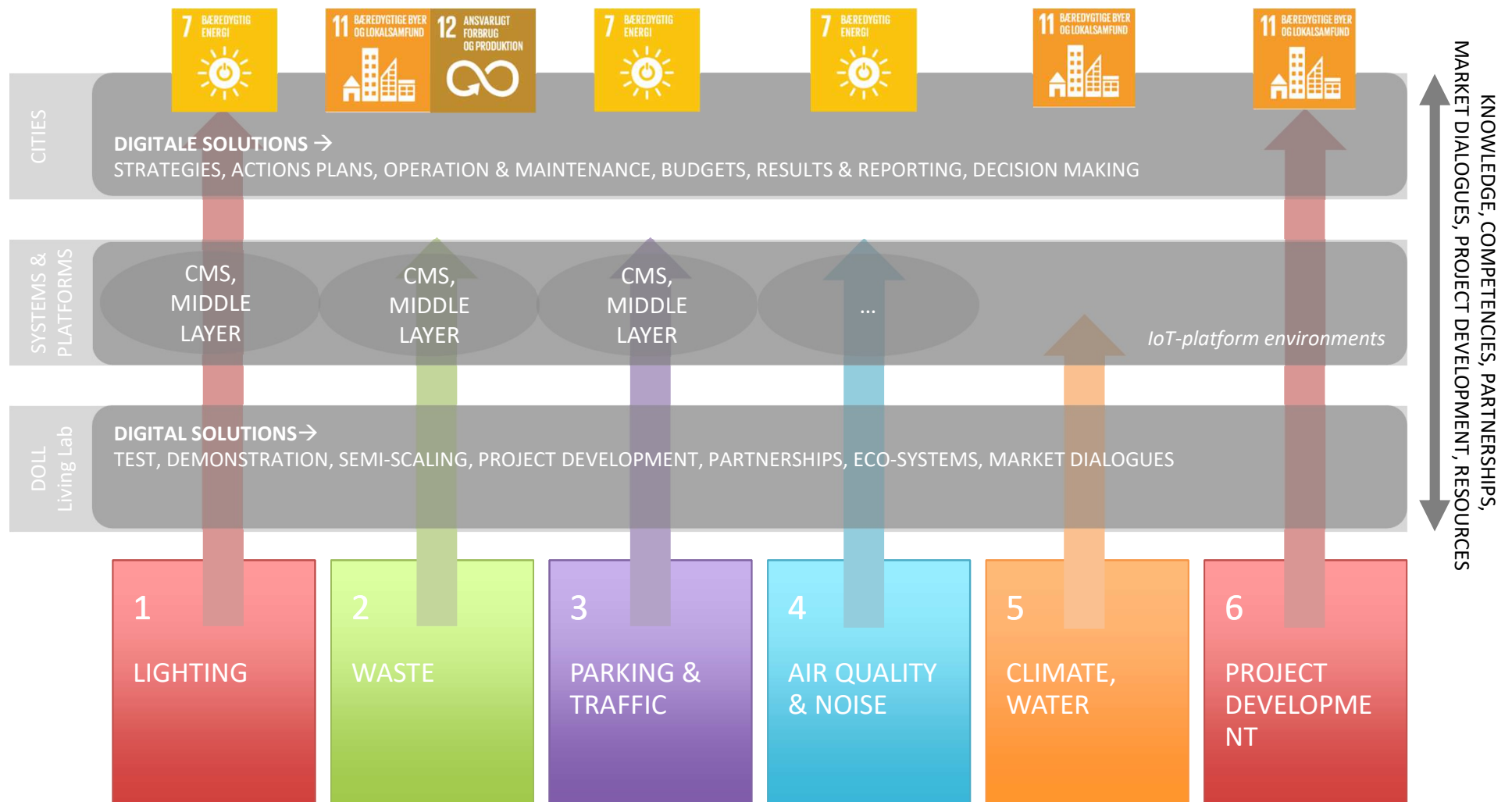
Waste Management



Parking Optimization

Cities traditionally address these challenges in silos.





Ready for smart growth

23 Participating municipalities



Allerød
Albertslund
Bornholm
Brøndby
Egedal
Fredensborg
Frederiksberg
Gentofte
Gladsaxe
Guldborgsund
Hillerød
Hørsholm
Hvidovre
Høje-Taastrup
Hørsholm
Kalundborg
Næstved
Odsherred
Rudersdal
Roskilde
Slagelse
Sorø
Vordingborg

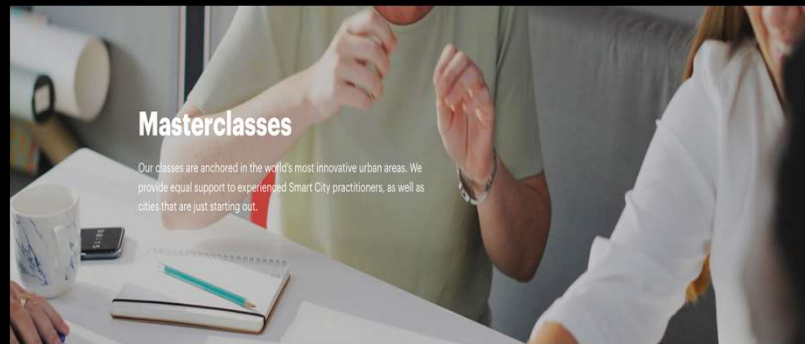


Most common barriers to scaling



TASC.

The Academy for Smarter Communities



Learn from our trainers

Learn from Antoni Vives, former deputy mayor of Barcelona, Jonathan Reichental, Kim Brostrom, Diana Bowman, Maja Yhde – and our many other subject matter experts and trainers...

MEET OUR TRAINERS

Tailored to your local community



Innovation Network – Ministry of Higher Education and Science

Smart City Cluster Denmark



Smart
City Cluster
Denmark

smartcitycluster.dk



A photograph of a street lamp at dusk. The lamp is illuminated, casting a warm glow. The sky is a deep blue with some light clouds. Silhouettes of trees are visible in the background. A semi-transparent blue rectangle is overlaid on the image, containing the text "Thank you" in white.

Thank you