

# Kenniscafé Smart Cities

26 mei 2016

# Programma ochtend



- 10.00 uur: Welkom
- 10.05 uur: Smart City Utrecht. Healthy urban living, Slim, Gezond, Groen en Connected.  
Door Brigitte Hulscher, Marketing & Digitale Innovatie, Economische Zaken  
Gemeente Utrecht
- Koffie pauze
- 11.00 uur: Roadmaps voor smart cities: hoe smart lighting de weg kan banen.  
Door Dr. Ir. Elke den Ouden, Technische Universiteit Eindhoven Industrial  
Engineering & Innovation Sciences/Voorzitter IGOV Innovatie Platform
- 11.30 uur: Sensoren in de openbare ruimte, een verkenning van Rijkswaterstaat.  
Door Jasmina Tepić MA. Rijkswaterstaat, Water, Verkeer en Leefomgeving  
Afd. Netwerkgereguleerders en Communicatie, Adviseur Strategische Verkenningen.

# Programma middag



- 13.30 uur: Communicatie infrastructuren voor Smart Cities.  
Door George Boersma, directeur Munisense b.v.
- 14.15 uur: Introductie OVLNL kennisteam Smart Cities/Smart Lighting.  
Door Ir. Edwin Baars, directeur Intechraal
- 14.30 uur: Smart Lighting in de praktijk  
Door Ruben van Bochove, Nobralux
- 14.45 uur Mededelingen OVLNL, IGOV Innovatie Platform en IGOV.  
Door Arthur Klink/Elke den Ouden, OVLNL/IGOV en  
Andre Engelman, OVLNL netwerk Licht & Omgeving Smart City Utrecht.
- 15.15 uur: Afsluiting  
Door Elke den Ouden voorzitter IGOV Innovatie Platform en dag voorzitter Daaf de Kok

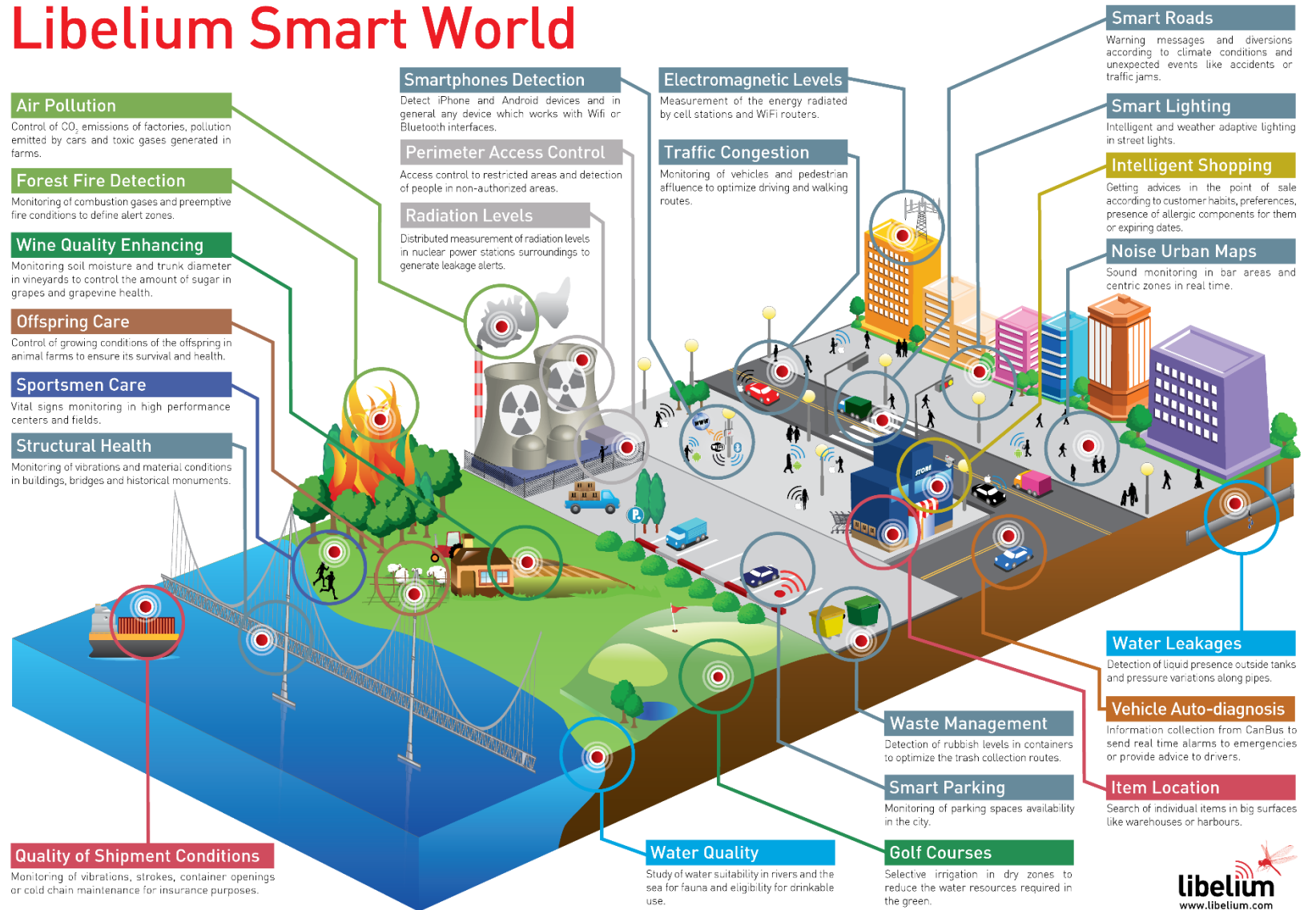
# Definitie Smart City

- Kwaliteit van leven verbeteren door met techniek diensten te verbeteren en beter aan te sluiten op de behoeften van inwoners (en andere stakeholders).
- smart city effective integration of physical, digital and human systems in the built environment to deliver a sustainable, prosperous and inclusive future for its citizens

# Smart City

Effective integration of physical, digital and human systems in the built environment to deliver a sustainable, prosperous and inclusive future for its citizens  
(bron: BSI Standards Publication)

## Libelium Smart World



# Themagroep Smart Lighting

Voor: stakeholders van de harde infrastructuur van Smart Lighting in Nederland

- Informatie vergaren, structureren en delen
- Kansen aanreiken op het gebied van Smart Lighting
- Promoten van standaardisering en modulairiteit
- Overheid en markt verbinden
- Verzamelpunt en vraagbaak
- Gemeenschappelijke belangen Smart Lighting behartigen



Intelligente  
verkeers-  
afhandeling

sensoren voor  
luchtkwaliteit,  
watermeting,  
etc.

stadsinformatie,  
advertentie  
panelen

laden  
electrische  
voertuigen

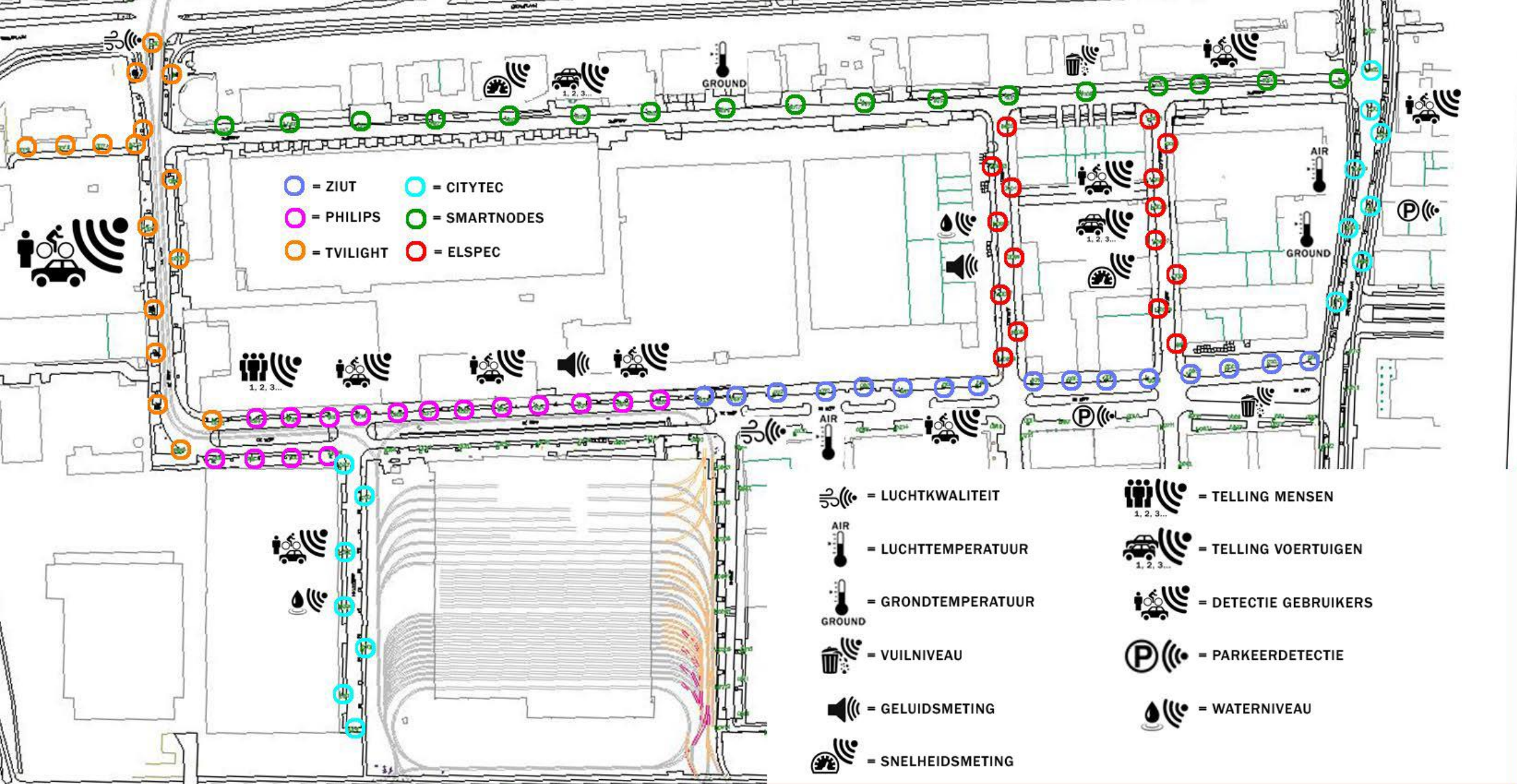
audio en video  
bewaking

afvalniveau-  
bewaking

communicatie-  
netwerken

parkeer-  
systeem

dynamische  
openbare  
verlichting



# Libelium Smart World

## Air Pollution

Control of CO<sub>2</sub> emissions of factories, pollution emitted by cars and toxic gases generated in farms.

## Forest Fire Detection

Monitoring of combustion gases and preemptive fire conditions to define alert zones.

## Wine Quality Enhancing

Monitoring soil moisture and trunk diameter in vineyards to control the amount of sugar in grapes and grapevine health.

## Offspring Care

Control of growing conditions of the offspring in animal farms to ensure its survival and health.

## Sportsmen Care

Vital signs monitoring in high performance centers and fields.

## Structural Health

Monitoring of vibrations and material conditions in buildings, bridges and historical monuments.

## Quality of Shipment Conditions

Monitoring of vibrations, strokes, container openings or cold chain maintenance for insurance purposes.

## Smartphones Detection

Detect iPhone and Android devices and in general any device which works with WiFi or Bluetooth interfaces.

## Perimeter Access Control

Access control to restricted areas and detection of people in non-authorized areas.

## Radiation Levels

Distributed measurement of radiation levels in nuclear power stations surroundings to generate leakage alerts.

## Electromagnetic Levels

Measurement of the energy radiated by cell stations and WiFi routers.

## Traffic Congestion

Monitoring of vehicles and pedestrian affluence to optimize driving and walking routes.

## Smart Roads

Warning messages and diversions according to climate conditions and unexpected events like accidents or traffic jams.

## Smart Lighting

Intelligent and weather adaptive lighting in street lights.

## Intelligent Shopping

Getting advices in the point of sale according to customer habits, preferences, presence of allergic components for them or expiring dates.

## Noise Urban Maps

Sound monitoring in bar areas and centric zones in real time.

## Water Leakages

Detection of liquid presence outside tanks and pressure variations along pipes.

## Vehicle Auto-diagnosis

Information collection from CanBus to send real time alarms to emergencies or provide advice to drivers.

## Item Location

Search of individual items in big surfaces like warehouses or harbours.

## Waste Management

Detection of rubbish levels in containers to optimize the trash collection routes.

## Smart Parking

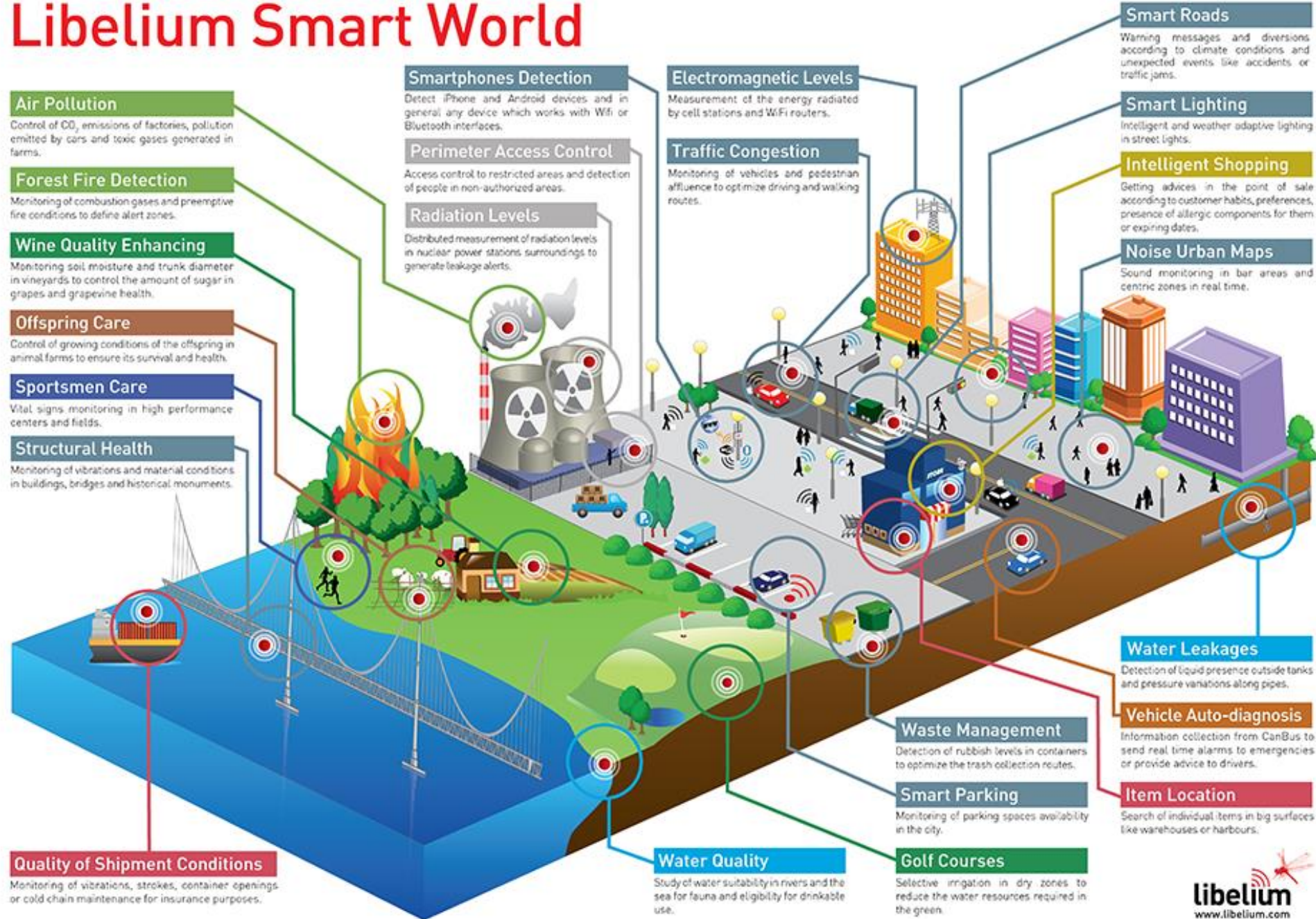
Monitoring of parking spaces availability in the city.

## Golf Courses

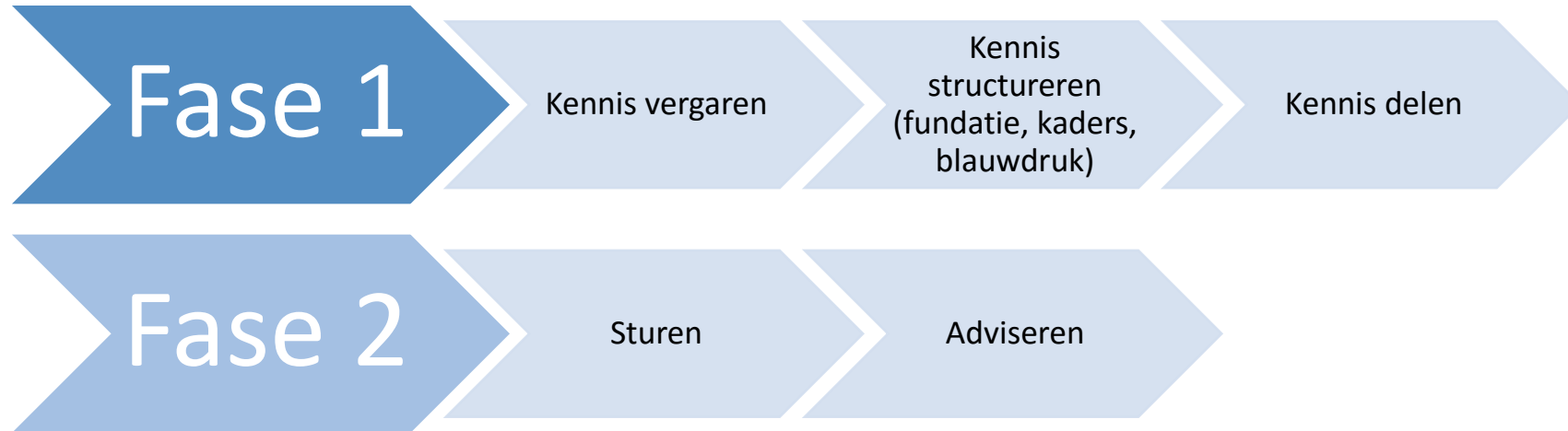
Selective irrigation in dry zones to reduce the water resources required in the green.

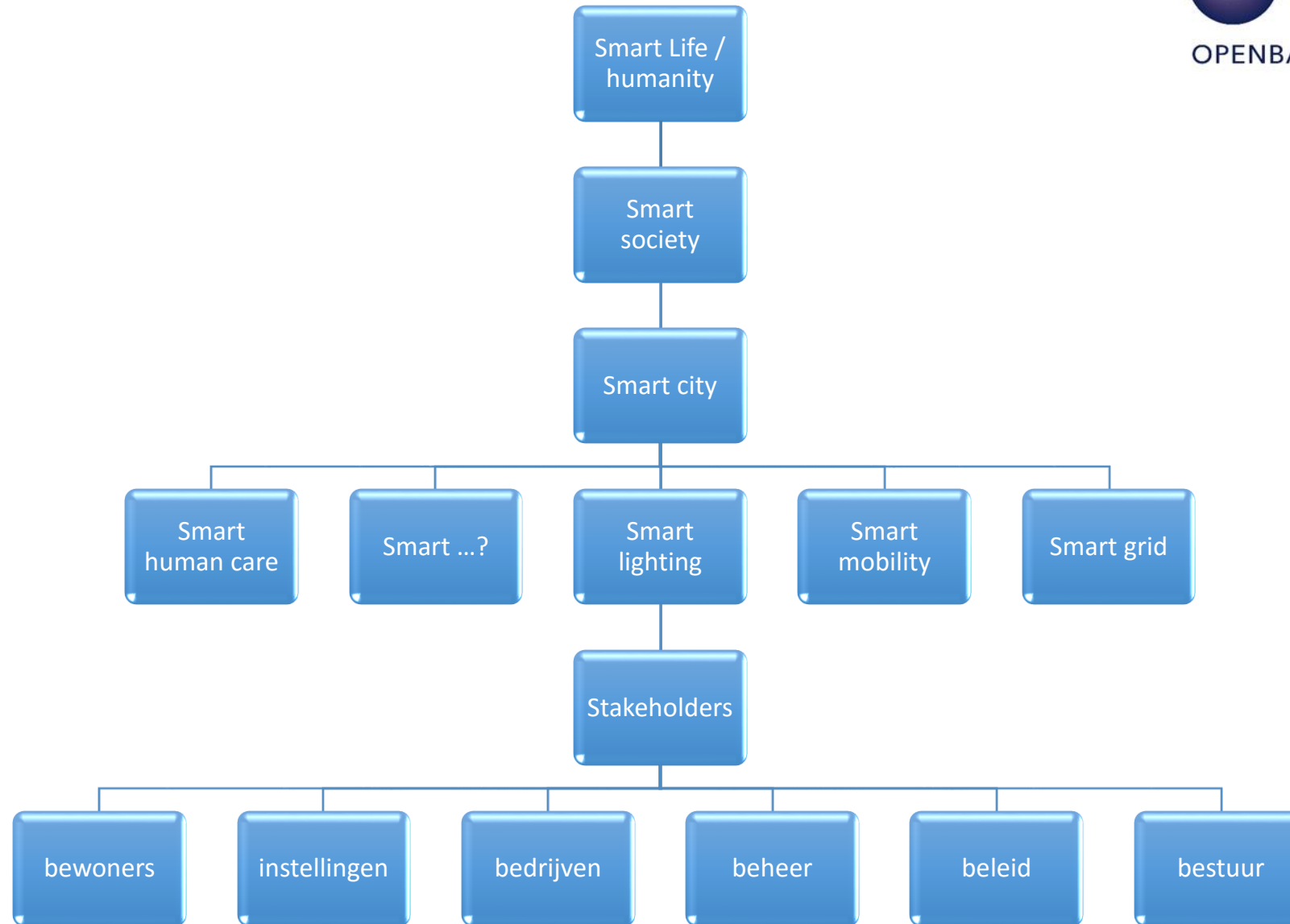
## Water Quality

Study of water suitability in rivers and the sea for fauna and eligibility for drinkable use.



# Themagroep Smart cities





# Best Practices .. van drukknop tot ....

- Strategie
- Beleid, visies
- Economisch
- Juridisch
- Marketing
- Infrastructuur / ICT
- Welzijn
- Data
- Milieu
- .....?