

Living Lab Assen

A great innovation opportunity



**HEINRICH
BÖLL
STIFTUNG**

Assen, Sept 28 2016

Assen

Capital of Drenthe



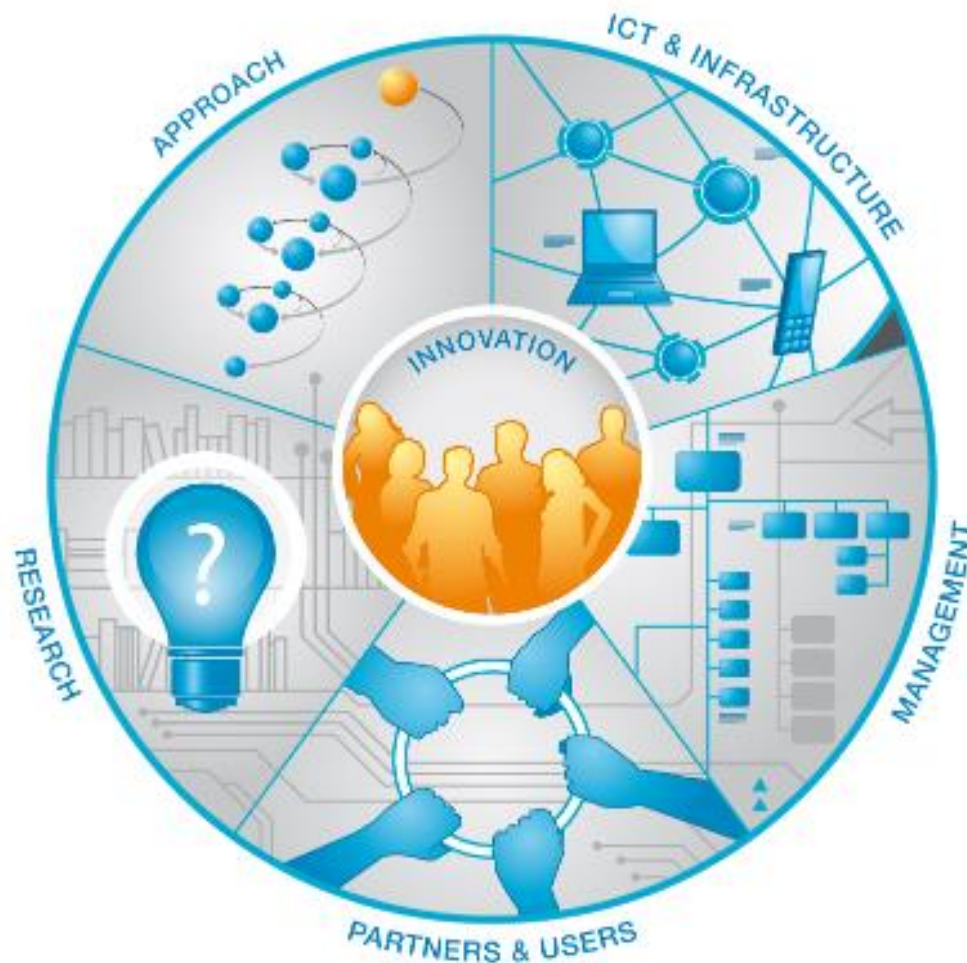
- Capital of province Drenthe
- 67.036 inhabitants; 80.000 inhabitants expected in 2030
- Florijnas project: large programme to improve city's accessibility
- Dutch TT: biggest one day sport event in the Netherlands



Living Lab Assen

Focus on sensor technology

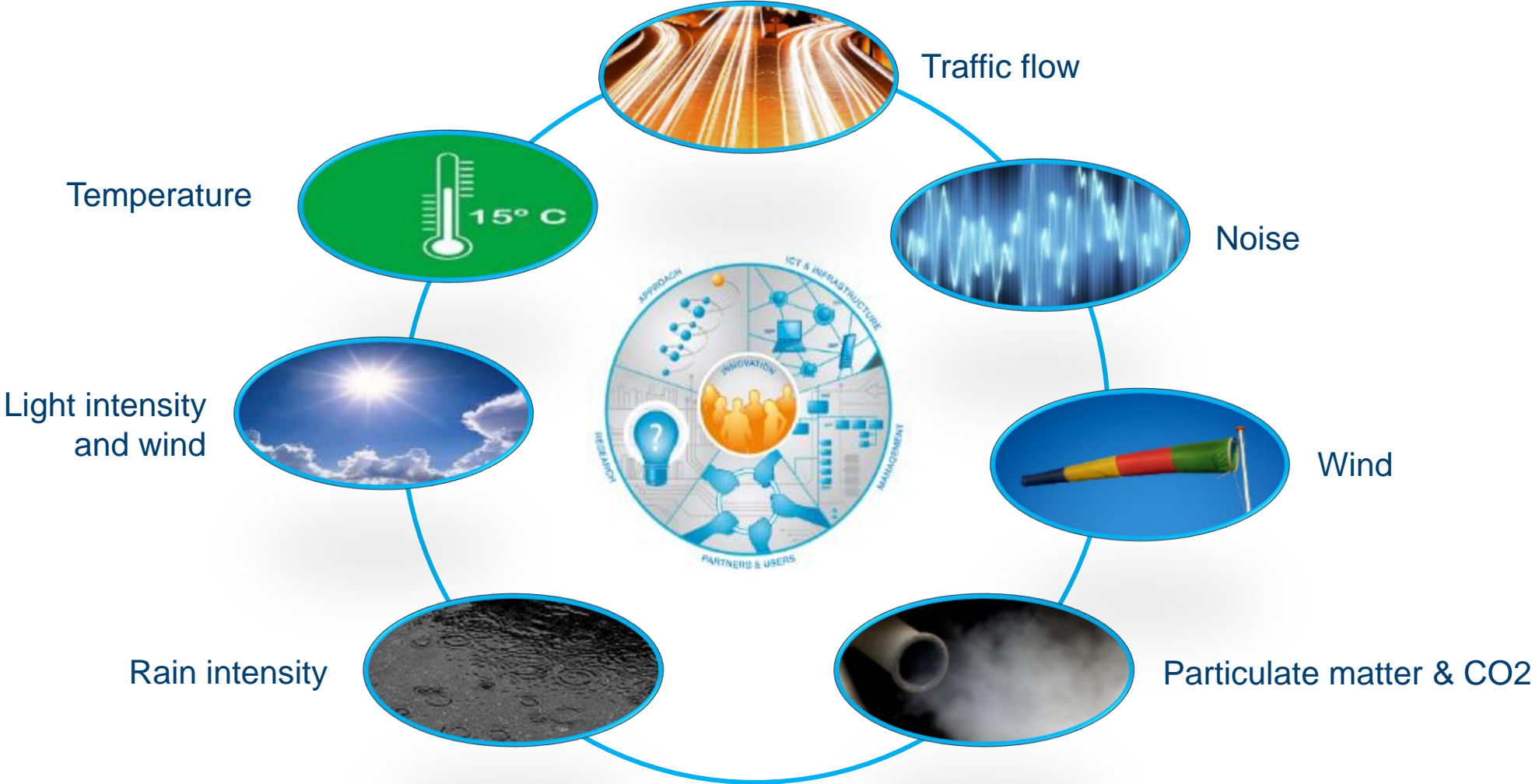
Elements of Living Lab Assen



- Living Lab: open innovation system focussed on end-user
- Co-creation of products and services in a real-life environment
- Living Lab Assen: Living Lab with focus on sensor technology
- Sensor City: technical hart Living Lab Assen

Living Lab Assen

Real time data collection



Living Lab Assen

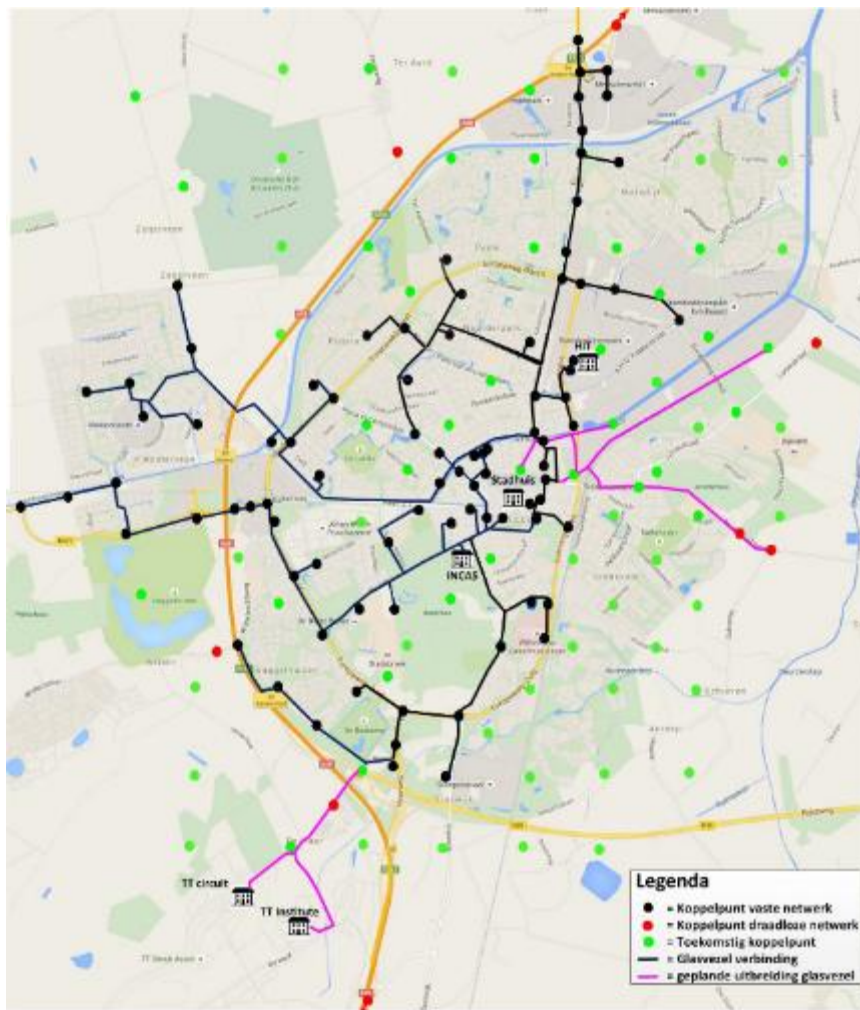
Focus on urban themes



Sensor City

Technical hart Living Lab Assen

Sensor City Network

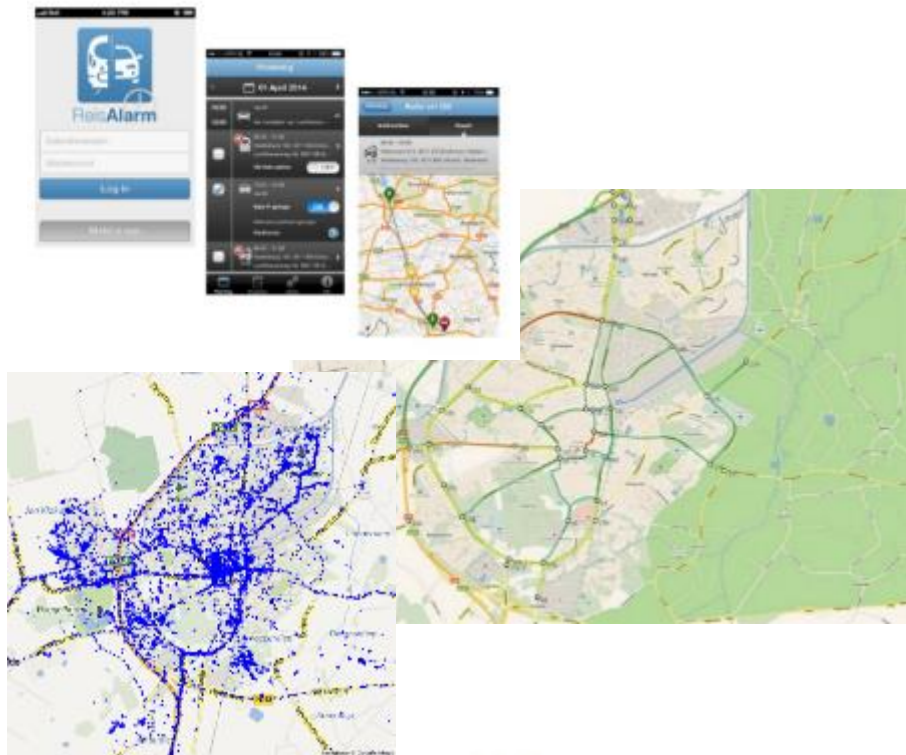


- Ramified glass fibre network
- Range can be extended with wireless technologies

Living Lab Assen

Mobility project

Smart usage of sensor data pays off



- Innovation in travel information and traffic management
- Experiment with 150 users
- Focused on improved traffic flow, safety and emission reduction
- Developed services include:
 - Way of driving monitor
 - Smart Routing
 - Smart parking
 - Multimodal travel advice
- Knowledge development on handling Big Data

dysi

ELEVATION

Gemeente Assen

Goudappel Coffeng

Quest

Sensor City

TNO innovation for life

TOMTOM

NIP

PARKINGWARE

Quest

Initech

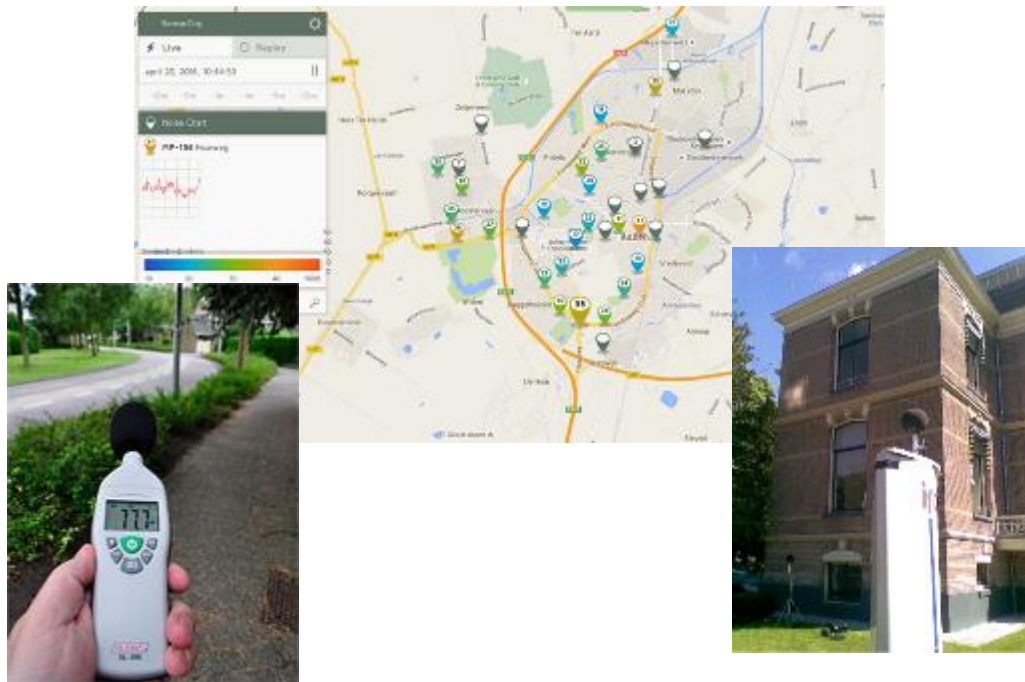
Magicvic

mobuy

Living Lab Assen

Sound project

Sound registration and interpretation



- Goal: development and application of knowledge in the area of sound sensors
- Monitoring, interpretation and controlling urban sounds
- Realised:
 - Pilot with 4 audio systems
 - Network audio system for continuous sound analysis
 - Flexible sound measurement systems that can be used at events
 - (Interactive) sound maps

PEUTZ

HIT Hanze Institute of Technology
Hanzel University Groningen
University of Applied Sciences

Gemeente Assen

university of groningen
university college groningen

Stichting Sensor City

TT Festival

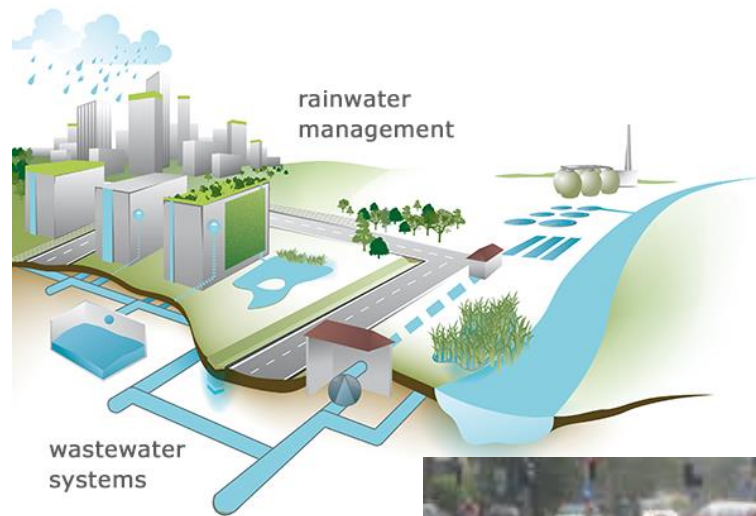
Living lab for crowd management

**TT
FESTIVAL
ASSEN**



- TT Festival: 4 days event around Moto GP/TT Assen
- Over 160.000 visitors
- Ideal living lab for crowd management innovation
- Collaboration with UT Twente and TU Delft

Smart Sewage in Assen



- Global warming leads to heavy rainfall
- Current sewage systems are not sufficient
- Building infrastructure is expensive
- Assen is working on smart sewage systems using sensor technology



water | onderzoek | advies

Mobility in Assen

Living Lab for Mobility



- Assen is equipped with an advanced Traffic Management System
- The systems receives real time data from the Sensor City network
- Traffic Management Systems is part of Living Lab Assen



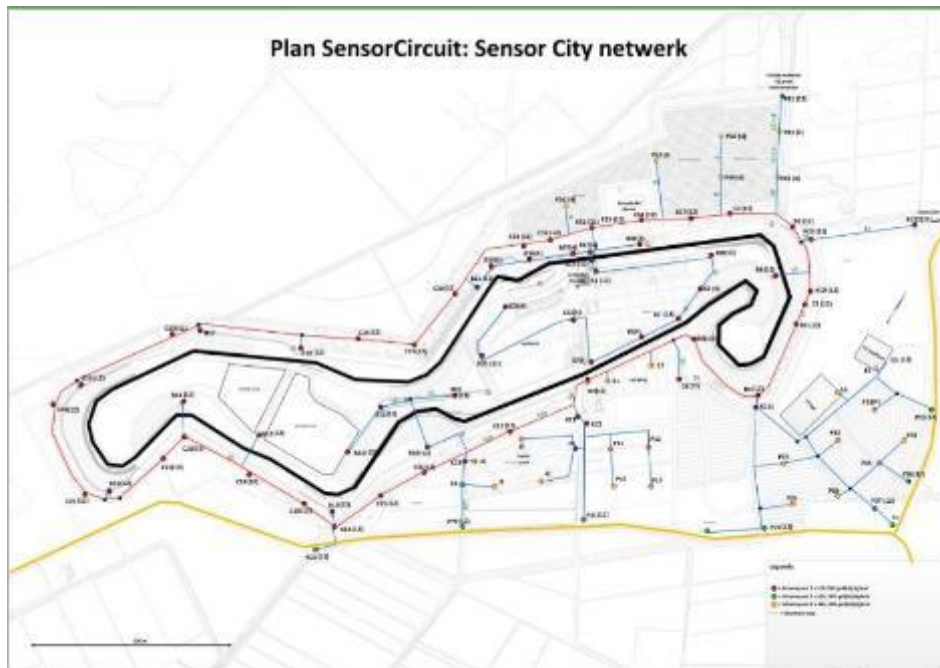
Lange files vanuit Assen na TT-races

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Laatste update: 27 juni 2015 18:20



Het einde van de TT in Assen leidt zaterdag tot lange files op de wegen rond Assen.

SensorCircuit Assen



- Unique test facility for areas like:
 - Sport monitoring
 - Crowd management
 - Smart mobility
- Extension of Assen as a 'Living Lab' facility: a safe test environment
- Improve visitor safety and user experience
- Strengthen position of TT as a renowned and progressive circuit



Living Lab Assen

Why should you innovate in Assen?

Operational and reliable network



- Glass fibre and sensor network is operational and reliable
- Network is open to everyone

Relevant test environment



- Assen is a smaller city with large city characteristics
- Relevant scale, but with room for experimenting

Privacy guaranteed



- Network is owned by independent foundation
- Network and supplied data is approved by governmental supervisory agency

Relevant knowledge institutes nearby



- Hanze Institute of Engineering
- Incas3 and Astron
- Connected to knowledge network in Groningen

Safe and efficient data exchange



- Data management system for safe and efficient data exchange

Supported by local government



- Actively supported by and collaboration with local governments