

# 26<sup>th</sup> World Gas Conference

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*TS. WOC4.3*

SMART MONITORING GAS GRIDS

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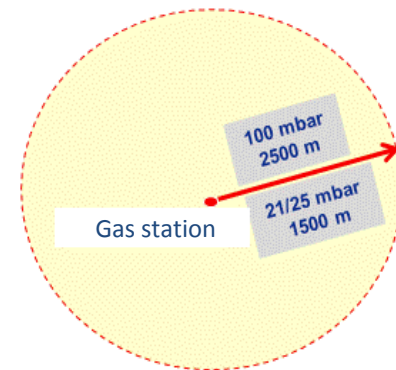
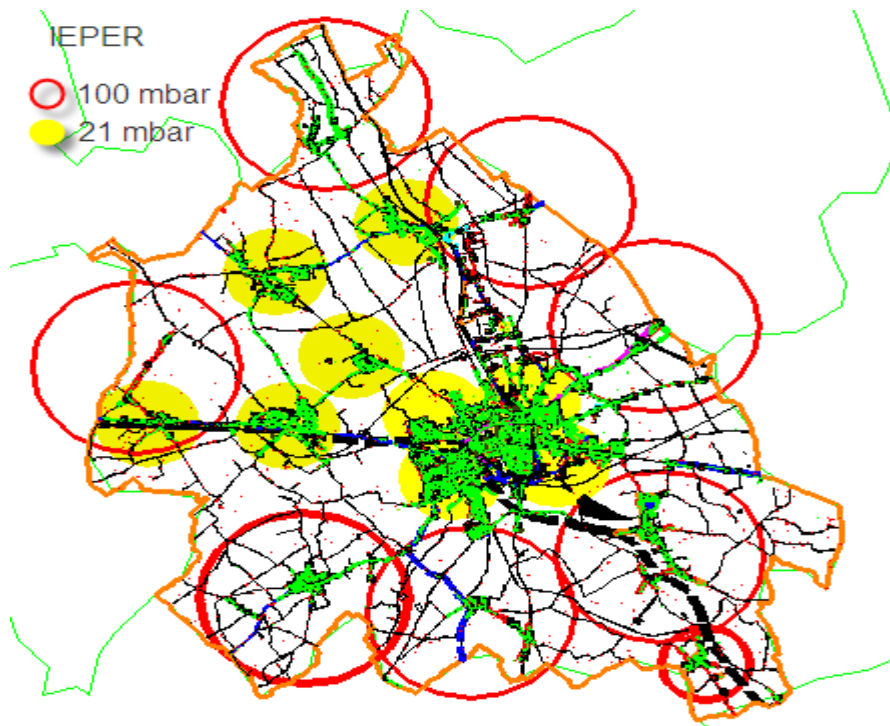
**Creating a qualitative, smart  
monitoring system  
in a cost efficient way**

# Value of knowledge

## Rethinking the **where** and **how**

# Where

## Covering the entire grid based on gas station action radius



## Loggers

- Determining technical requirements
- Field tests



# Technical requirements

- **1- and 2-channel** loggers
- **Battery** powered (EX - safe)
- **Continuous** measuring
- **Wireless** communication but no real time
- An **'automatic'** warning system (real time)

## Loggers

- Determining technical requirements
- Field tests



## Software

- Creating a new data system, using existing software



# Optimalisation

## Ongoing process

### Key issues:

- **2% inaccuracy of the data connections**
- **Alarm settings**
- **Battery lifetime**



# Key success factors

Policy

- Detail analysis of grid

Testing

- Field tests based on technical specification

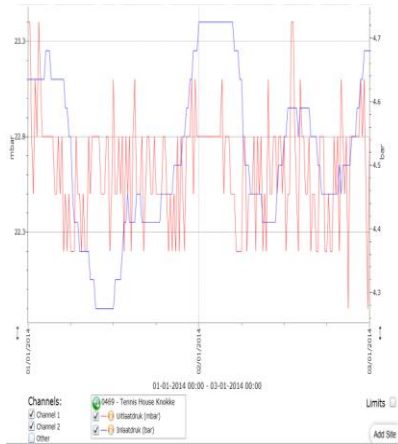
Data

- Wireless communication

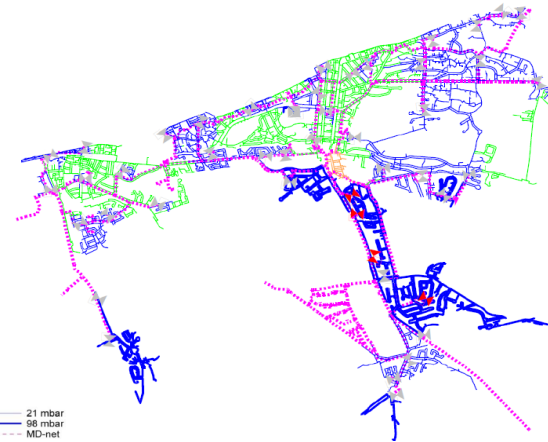
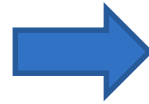
Opti+

- Ongoing process

## Optimising new grid investments



Results monitoring grid

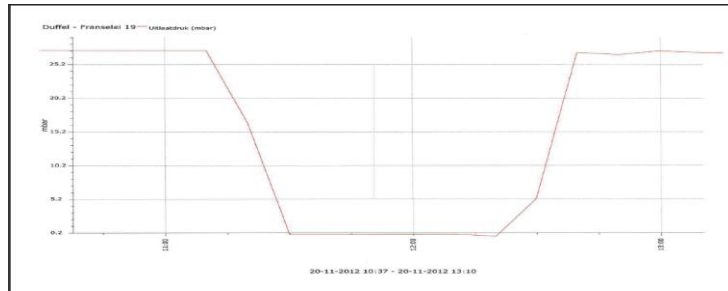


Results study

**Pressure data finetunes results of a sophisticated computer model**

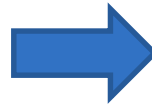
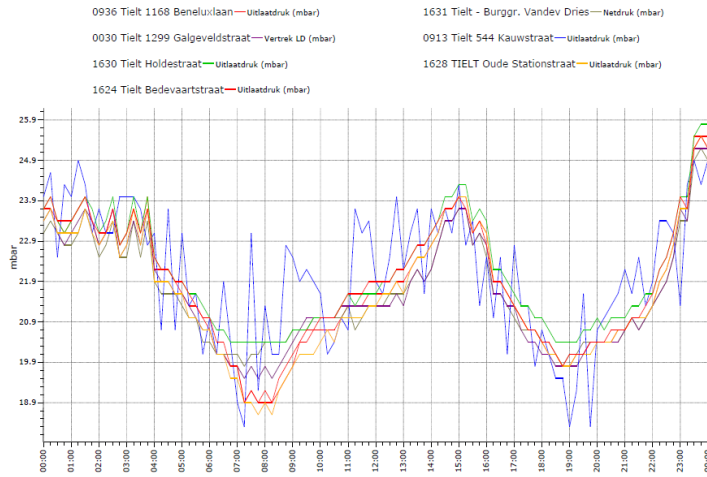
# Results

## An increasingly reliable and safe exploitation



**Faster reaction time in case of pressure problems**

## Reliability issues



**Detecting malfunctioning devices installed  
in gas stations**

**A smart grid does not necessitate large investments and research.**

**Using mature technology  
in a smart way  
creates interesting opportunities!**