

Smart Emission

Deelproject:
Infrastructuur & APIs

Data

Standaarden

Viewers

Michel Grothe - Geonovum

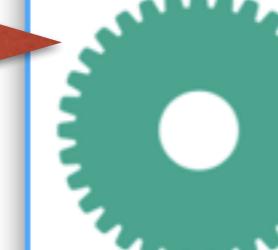
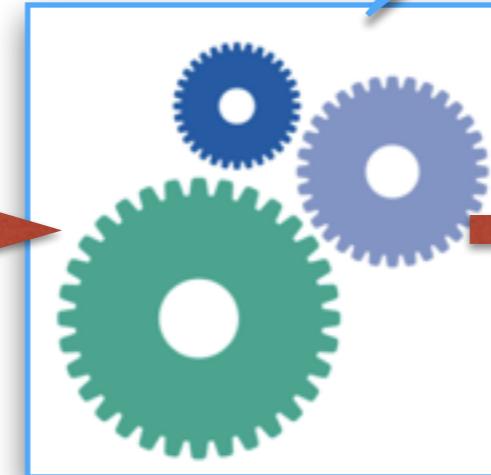
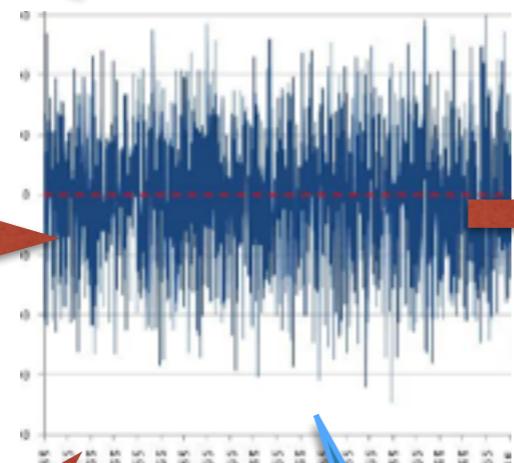
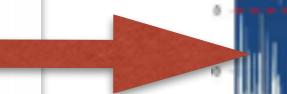
Just van den Broecke - Geonovum

Matthijs Kastelijns - Geonovum/TUDelft



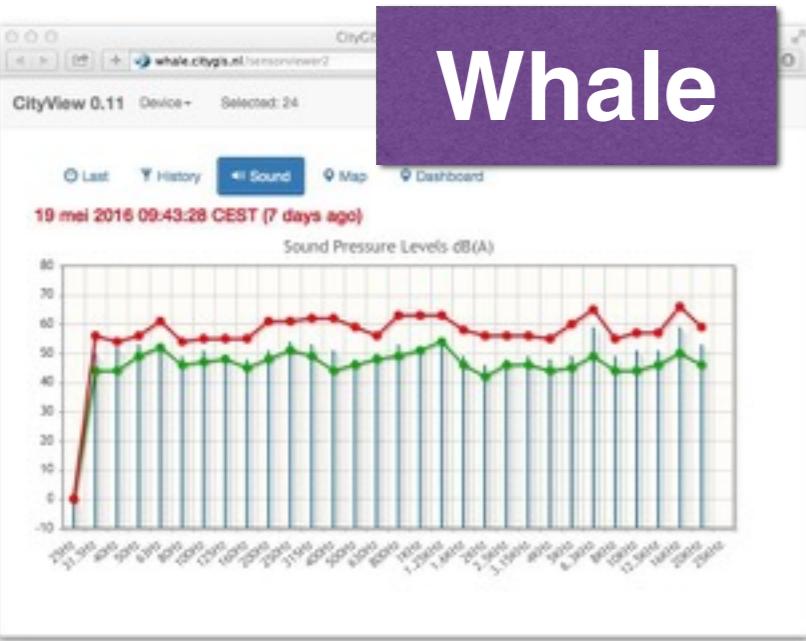
Data

Datastroom

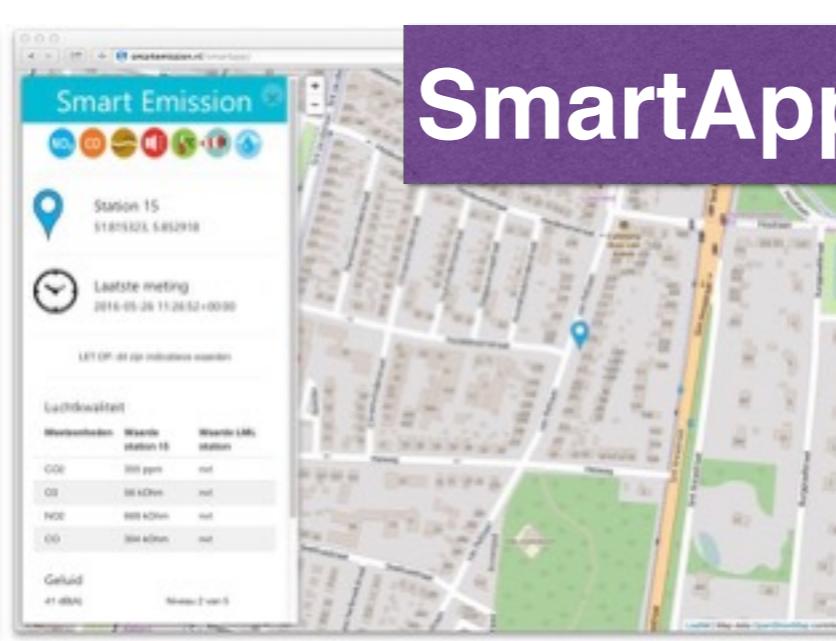


Viewers

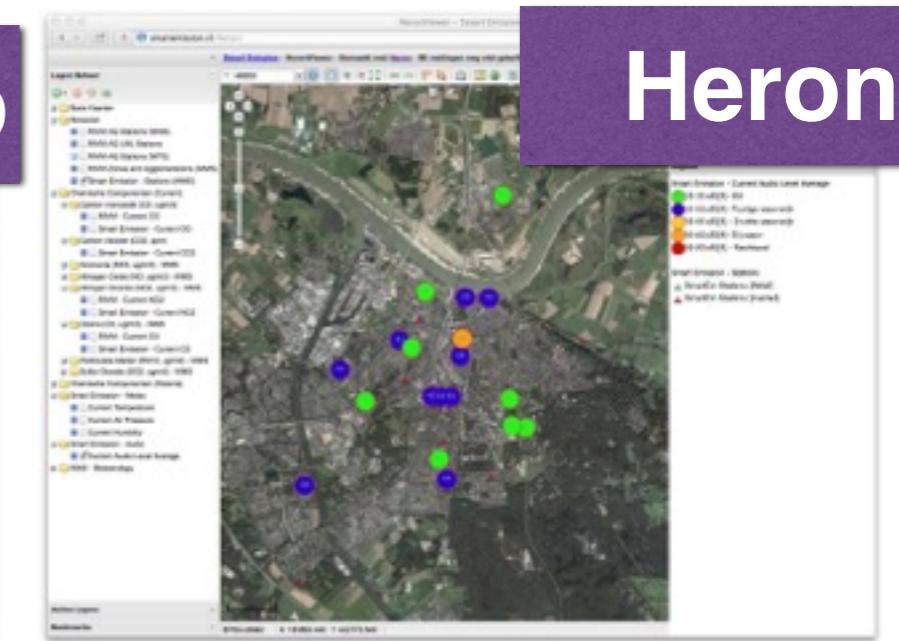
Whale



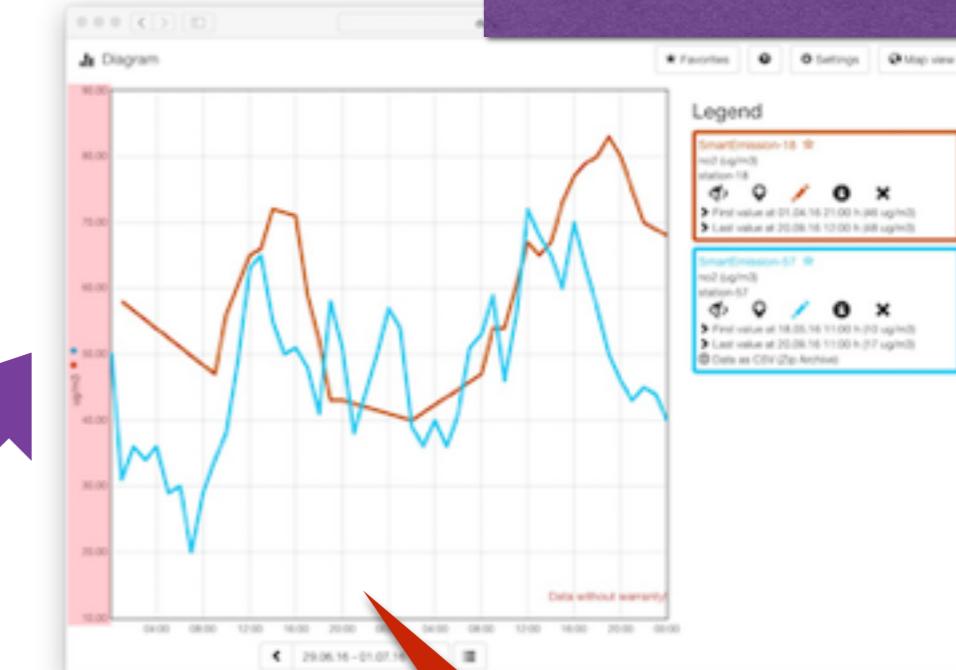
SmartApp



Heron

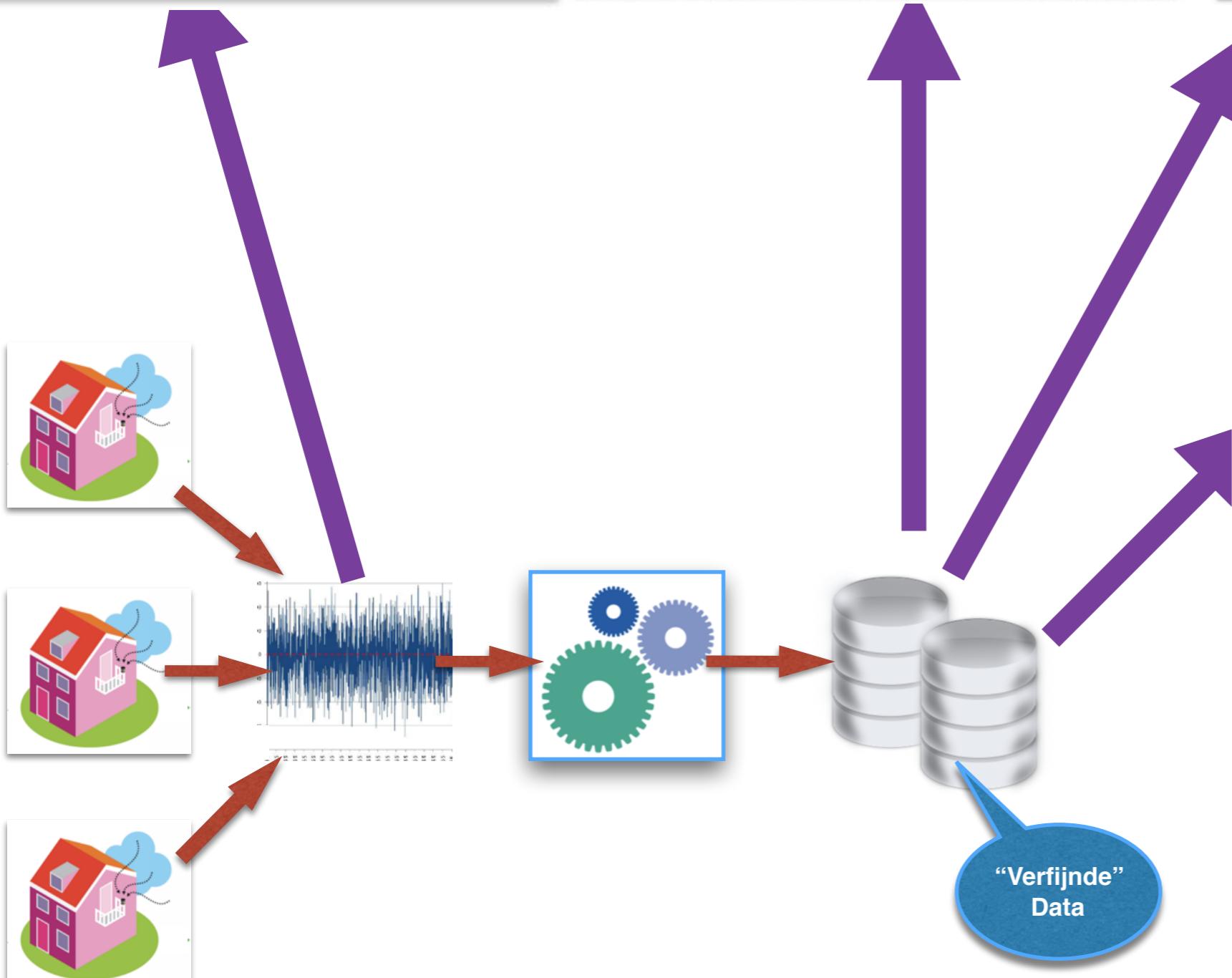


SOS



NIEUW

"Verfijnde"
Data



Smart Emission

data.smartemission.nl

NO₂ CO Wavetester Thermometer Wind Rain

Station 57
51.830536, 5.851028

Laatste meting
2016-09-20 13:39:25+02:00

LET OP: dit zijn indicatieve waarden

Luchtkwaliteit

Meeteenheden	Waarde station 57	Waarde LML station
CO	16 ug/m3	nvt
CO2	937 ppm	nvt
CORaw	286 kOhm	nvt
NO2	26 ug/m3	nvt
NO2Raw	812 kOhm	nvt
O3	79 ug/m3	nvt
O3Raw	72 kOhm	nvt

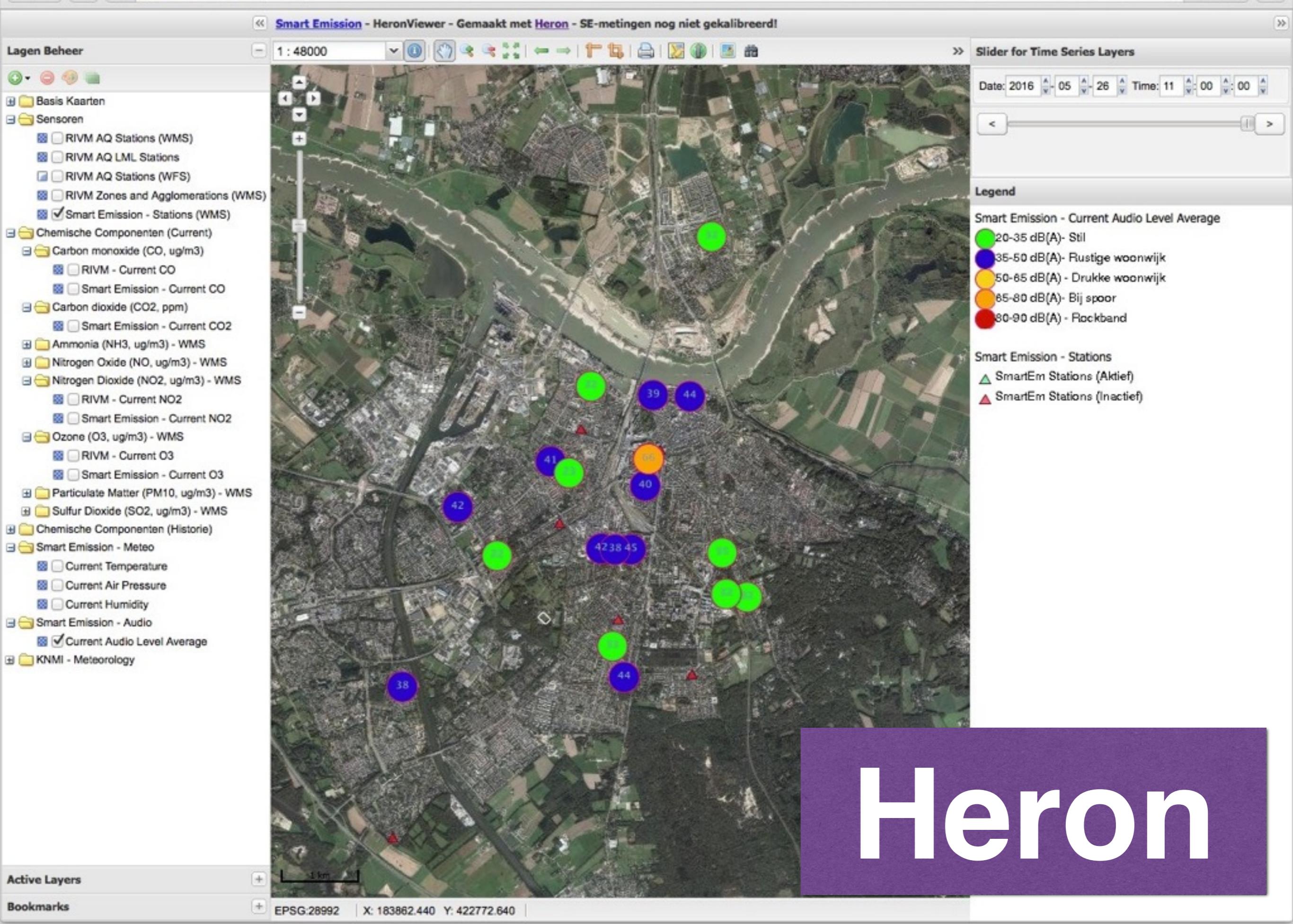
Geluid
42 dB(A)
Niveau 2 van 5

Meteo

Meeteenheden	Waarde station 57
Luchtvochtigheid	43 Procent
Luchtdruk	1016 HectoPascal
Temperatuur	25 Celsius

NIEUW:
Calibratie

SmartApp



data.smartemission.nl

Smart Emission - HeronViewer - Gemaakt met Heron - SE-metingen gecalibreerd!

Lagen Beheer

Zoek adres met PDOK GeoCoder

Slider for Timeseries (History in UTC) Layers

Date: 2016 - 09 - 20 Time: 10:00:00

Tips

Downloaden tijdreeksen (historie): kies verrekijker knop boven de zoekveldjes.

Castellatoren

de Ruyter

Castellastra

Cam

2000 km

EPSG:28992 | X: 187014.671 Y: 427927.956

Stations

RIV

Smart Em

Carbo

Nitrog

Ozoni

Smart Em

No

No

Smart Emission - Meteo

Temperature - Current

Temperature - History

Air Pressure - Current

Air Pressure - History

Humidity - Current

Humidity - History

Active Layers

Snelkoppelingen

Zoeken: Download Historie/Tijdreeksen

Station: 57

Component: Stikstofdioxide (NO2 mg/m3)

Start datum: 29 Jun 2016

Eind datum: 01 Jul 2016

Downloaden tijdreeksen (historie)
Kies station nummer, dan component, dan evt tijdsperiode.
Klik op "Zoeken" knop. Zoeken kan even duren...geduld...Dan rechtsboven in resultaat tabel
Download en formaat, bijv CSV, klezen

Zoeken voltooid: 49 Resultaten

Stop Zoeken

< Zoeken Resultaat >

Heron

NIEUW:
Downloads

Legenda

Smart Emission - Stations

- SmartEm Stations (Aktief)
- SmartEm Stations (Inactief)

(C) OpenBasisKaart
Data ODbL OpenStreetMap

data.smartemission.nl

Smart Emission - HeronViewer - Gemaakt met [Heron](#) - SE-metingen gecalibreerd!

Lagen Beheer

Zoek adres met PDOK GeoCoder

Slider for Timeseries (History in UTC) Layers

Date: 2016 - 09 - 20 Time: 10:00:00

Tips

Downloaden tijdreeksen (historie): kies verrekijker knop  bovenaan

Castellatoren

Castellastra

Download Historie/Tijdreeksen

49 Resultaten

Gid_r... Insert_time Device_id Name Label Unit

59619	2016-07-27T03:20:10.679	57	no2	NO2	ug/m ³
59620	2016-07-27T03:20:10.945	57	no2	NO2	ug/m ³
59621	2016-07-27T03:20:11.202	57	no2	NO2	ug/m ³
59622	2016-07-27T03:20:11.417	57	no2	NO2	ug/m ³
59623	2016-07-27T03:20:11.662	57	no2	NO2	ug/m ³
59624	2016-07-27T03:20:11.941	57	no2	NO2	ug/m ³
59625	2016-07-27T03:20:12.186	57	no2	NO2	ug/m ³
59626	2016-07-27T03:20:12.486	57	no2	NO2	ug/m ³
59627	2016-07-27T03:20:12.744	57	no2	NO2	ug/m ³
59628	2016-07-27T03:20:13.018	57	no2	NO2	ug/m ³
59629	2016-07-27T03:20:13.25	57	no2	NO2	ug/m ³
59630	2016-07-27T03:20:13.519	57	no2	NO2	ug/m ³
59631	2016-07-27T03:20:13.823	57	no2	NO2	ug/m ³
59632	2016-07-27T03:20:14.112	57	--2	NO2	--/--/--

Resultaat >

NIEUW:
Downloads

als Comma Separated Values (CSV)
als Excel (XLS)
als GML v2
als Esri Shapefile (RD)
als Esri Shapefile (WGS84)
als OGC GeoPackage (RD)
als OGC GeoPackage (WGS84)
als GeoJSON
als Well-known Text (WKT)

Legenda

Smart Emission - Stations

SmartEm Stations (Aktief)
SmartEm Stations (Inactief)

Castellatoren

Castellastra

OpenBasisKaart

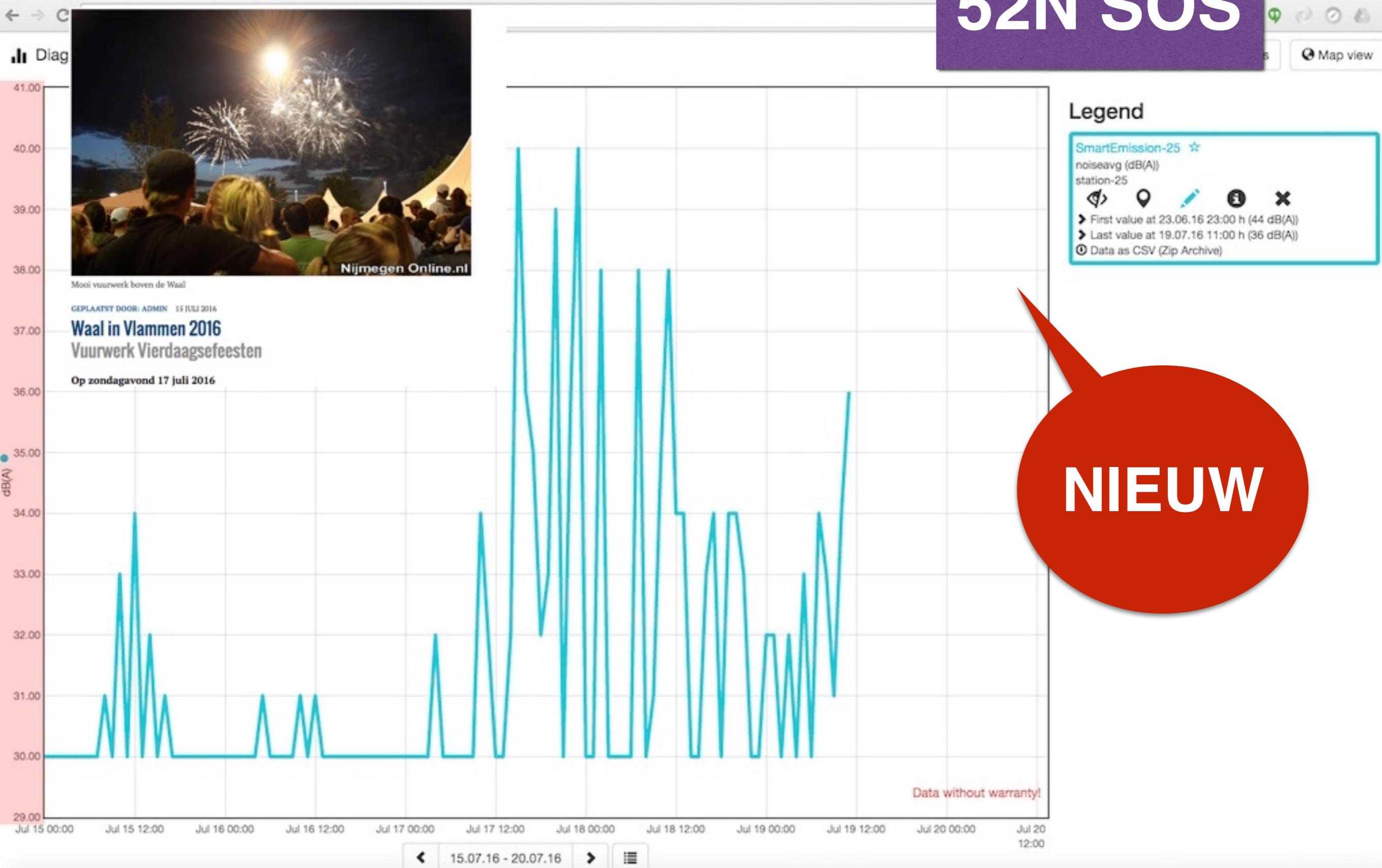
ODbL OpenStreetMap

2000 km

EPSG:28992 X: 187077.461 Y: 427812.876

Heron

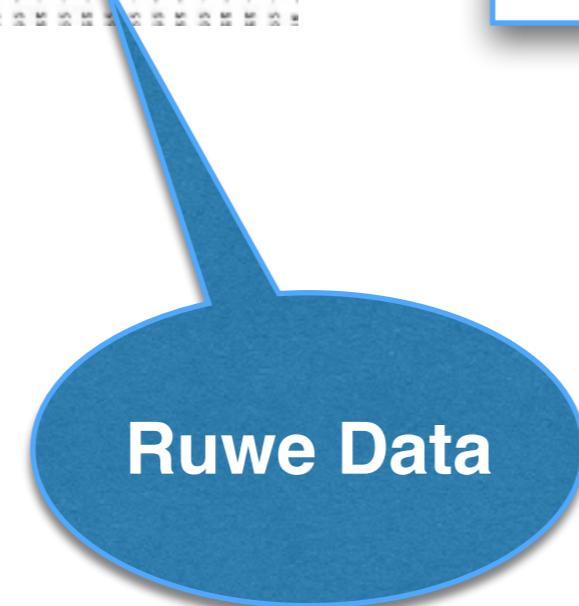
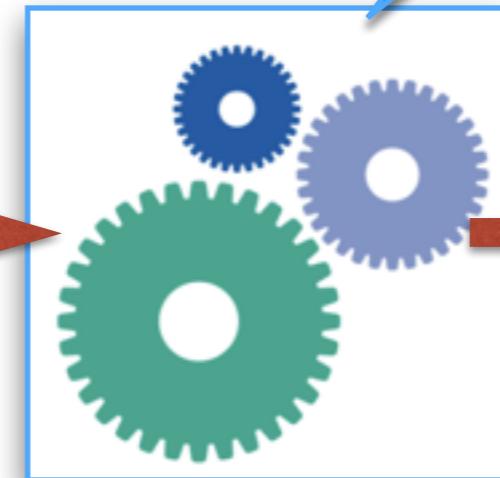
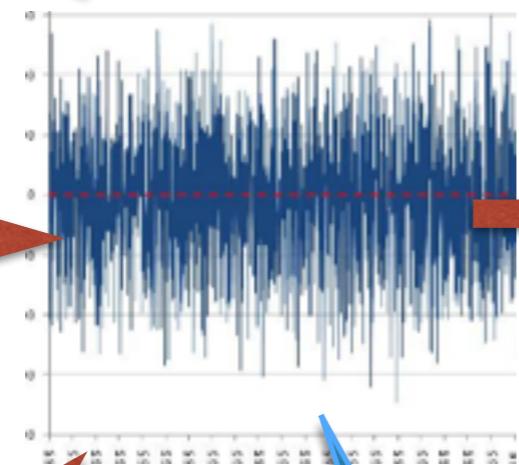
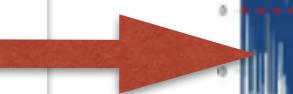
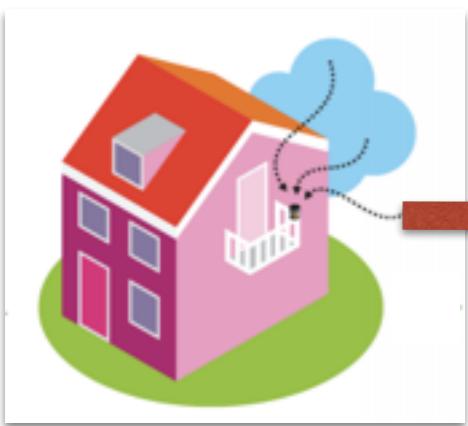
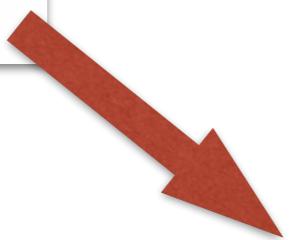
52N SOS



<http://data.smartemission.nl/sos52n/static/client/jsClient/index.html>

Standaarden

Datastroom



Viewers

SOSViewer



Heron



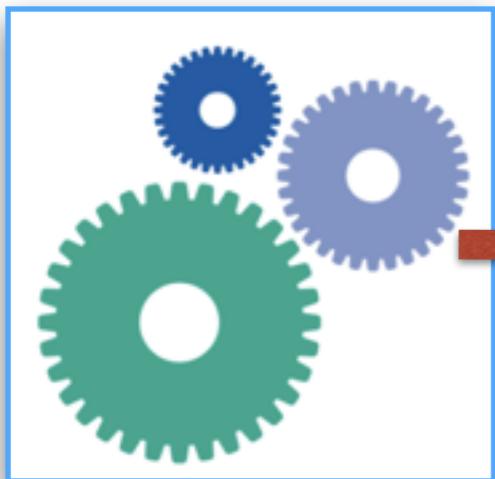
**Standaarden
“APIs”**

SOS

WMS

WFS

STA



**“Verfijnde”
Data**



STATUS

Highlights

20 jun - 20 sept 2016

Data

- Validatie
- Historie
- Calibratie
- Aggregatie

Fiware: on-hold

Standaarden

- SOS (ready)
- WFS (tbv download)
- WMS-Time (tbv timeslider)
- SensorThings (started)

Viewers

- SmartApp: gecalibreerde waarden
- Heron: Timeslider, Download
- SOS Viewer (nieuw)

Wensen & Uitbreidingen

+Input van deze evaluatie dag!

Data

- Calibratie (verfijn)
- Geluid (nwe indicatoren)

Fiware: ?

Standaarden

- SensorThings (finalize)

Viewers

- SmartApp: ?
- Heron: ?
- SOS Viewer (bugfixes)

Statistieken op 20 sept 2016

- Historie: start 25 april 2016
- Stations: 46, aktief (laatste 2 uur) 33
- Indicatoren: 12 (meteo 3, geluid 2, gas 7)
- Metingen (ruw):
 - 10GB JSON “harvested” (whale API)
 - plm 10 miljoen metingen
 - plm 70 indicatoren (sensors)
 - plm 200 per station/per uur
 - ~ 8000 metingen per/uur
 - ~ 20000 metingen per dag
 - database opslag plm 15GB, plm 5GB p/maand
- Metingen (geaggregeerd uurbasis)
 - totaal 888636
 - database opslag 150MB plm 15MB p/maand

[+]	v_timeseries_barometer
[+]	v_timeseries_co
[+]	v_timeseries_co2
[+]	v_timeseries_co_raw
[+]	v_timeseries_humidity
[+]	v_timeseries_no2
[+]	v_timeseries_no2_raw
[+]	v_timeseries_noise_avg
[+]	v_timeseries_noise_level_avg
[+]	v_timeseries_o3
[+]	v_timeseries_o3_raw
[+]	v_timeseries_temperature

Dank!