




Quiet Urban Areas in Rotterdam

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Rotterdam 19-20 February 2015

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Content



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DCMR EPA



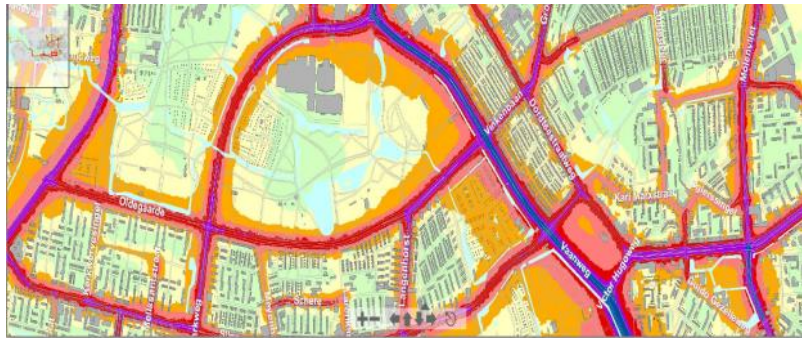
- Works for municipalities in the Rotterdam Metropolitan Region and the province of South Holland
- Environmental tasks on permitting, inspection and enforcement, outlook assessments and monitoring
- Expertise on soil contamination, air quality, waste, external safety and noise
- Centre for complaints and emergency 24/7 open
- Advising on local, national and European policies



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Selection



Legenda

Klimaat

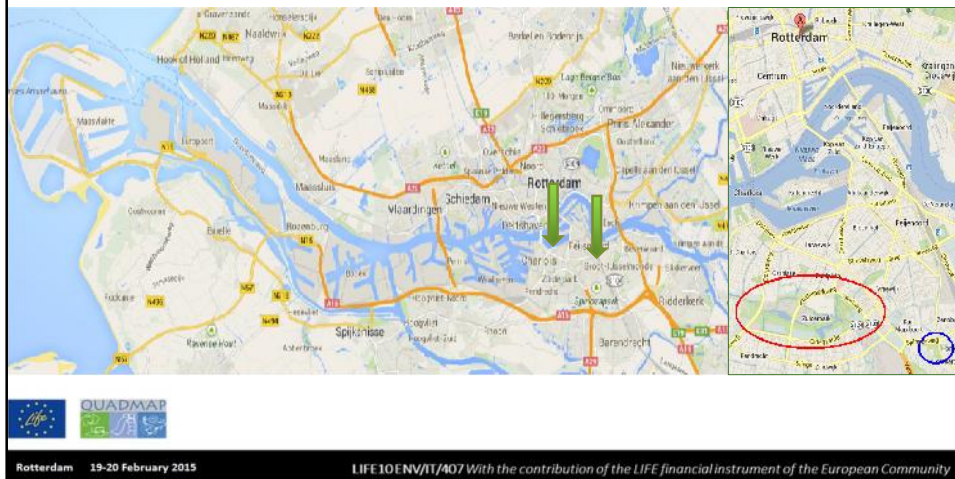
| | | | | | |
|---------|-------------|--------------|---------------|---------------|----------|
| < 100 m | 100 - 500 m | 500 - 1000 m | 1000 - 2000 m | 2000 - 3000 m | > 3000 m |
|---------|-------------|--------------|---------------|---------------|----------|

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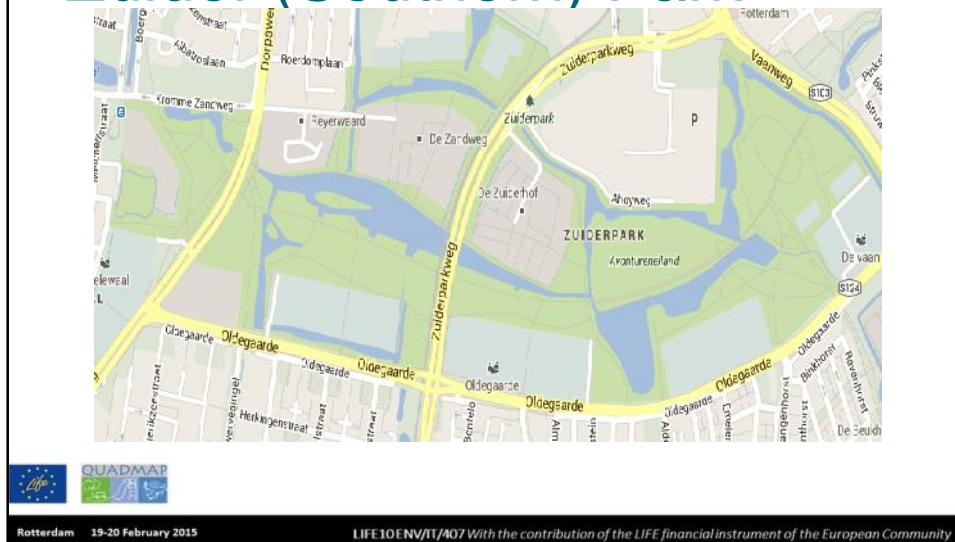
Two parks in Rotterdam



Spinoza Park

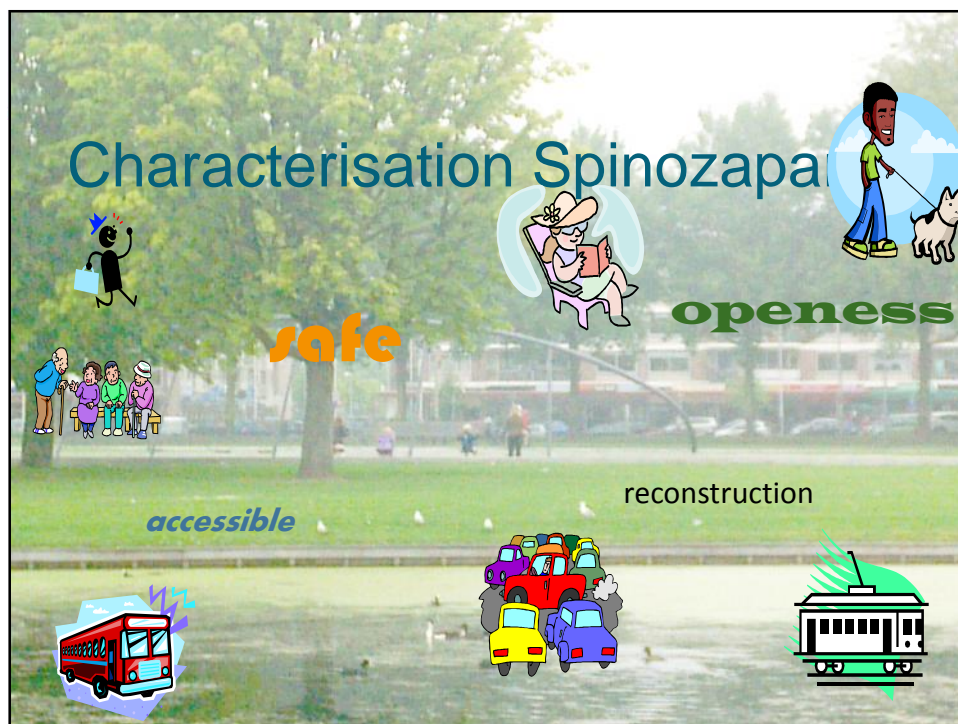


Zuider (Southern) Park



Some impressions







What have we done?

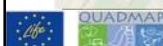
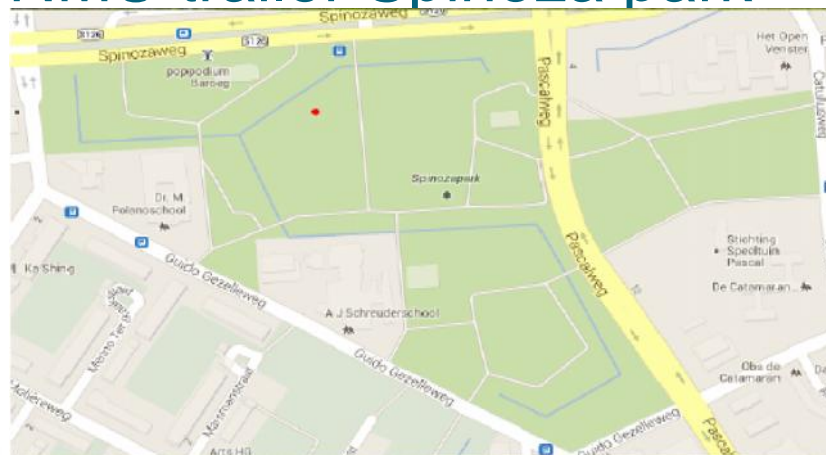
- Noise measurements before and after interventions
- Questionnaire visitors before and after interventions
- Visit to both parks and examined them (visual and auditory observations)
- Soundwalk



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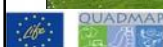
NMU trailer Spinoza park



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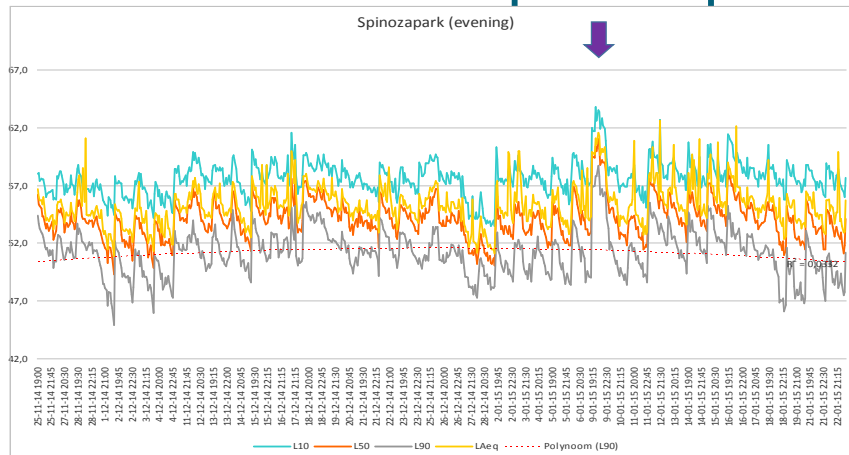
NMU position Zuider park



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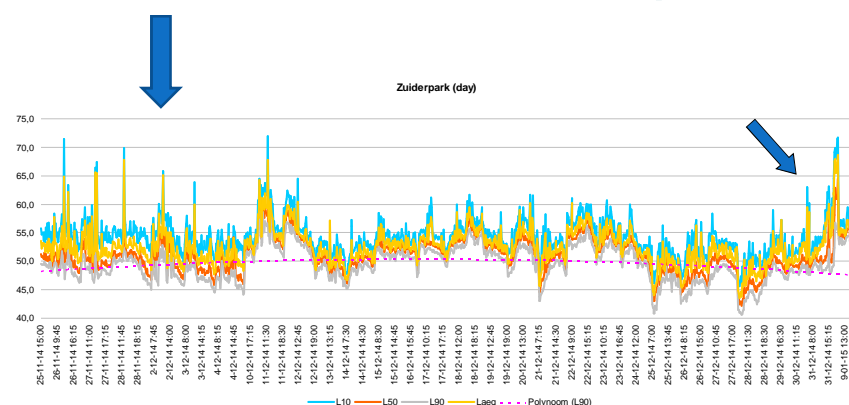
Measurements Spinozapark



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Measurements Zuiderpark



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Survey by questionnaire

| | E.1 I perceive an IMPORTANT element in a quiet area in: | | E.2 Referring to this area, I perceive each of the following items as pleasant | | | | |
|--|---|---------------|--|---|---|---|---|
| | Perceived | Not perceived | (Un) pleasant | | | | |
| Air quality | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Safety | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Well-maintenance | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Services and equipment (benches, etc.) | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Accessibility | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Amusement/entertainment | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Natural elements | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Climate (humidity, wind, etc.) | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Visual aspects | 1 | 2 | 1 | 2 | 3 | 4 | 5 |
| Smells | 1 | 2 | 1 | 2 | 3 | 4 | 5 |

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Expert analysis

| | | | | |
|--------------------------------------|--|--|------------------|--|
| Urban equipment | Presence and location of urban equipment | Number of benches and other equipment/m ² | ■ | |
| Proximity from/to noise sources | Proximity to noise sources means possible high noise levels. If users can see noise source it influences on their noise perception psychologically | Main noise source is next to QUA and it is visible by users Main noise source is next to QUA and it is invisible by users Main noise source is far away | ■ ■ ■ | Depending upon which position within the park. Along the borders of the park main roads that are visible, but ample opportunity to get deeper in the park and out of sight (and ear) |
| Presence of a multi-sources scenario | Presence of one or more kind of noise sources | Road, rail and airplane traffic noise Road and rail traffic noise Road traffic noise | ■ ■ ■ | See above regarding road and railway (metro) noise |
| Taxonomy of noise sources | Identification and classification of noise sources | Traffic sounds (cars, tractors, buses, planes) Mechanical sounds (construction works, farming activities) Human sources (children, people talking/laughing, foot steps) Natural sources (birds, leafs/trees, water) | ■ ■ ■ ■ | All sources can be heard in different parts of the park and in different combinations (and perception/valuation). Varies from clearly audible to somewhat audible |

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Interventions

Quiet Road Surfaces on Groene Kruisweg and the Spinozaweg (thin layers).



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Rotterdam, your votes please

- Noise measurements
- Questionnaires



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Noise levels found

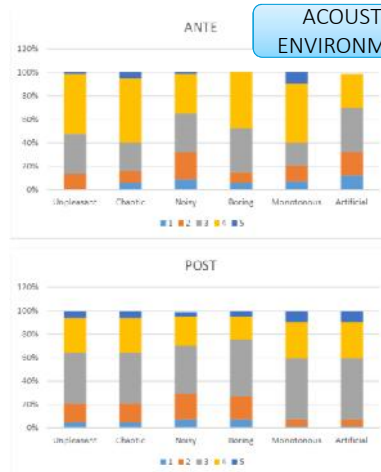
| ante-operam Zuider/Spinoza | post-operam Zuider/Spinoza | L _{Aeq} /L _{A50} per period |
|-------------------------------|-------------------------------|--|
| 53.5/56.9 | 52.7/55.6 | L _{Aeq} day |
| 50.8/55.6 | 51.0/56.6 | L ₅₀ day |
| Park | Ante-operam | Post-operam |
| Spinozapark | 5.4 dB | 6.0 dB |
| Zuiderpark | 5.6 dB | 4.9 dB |



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Results questionnaire



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Soundwalk

PM wacht op stuk van Rens Bachman (komt ws vandaag
(vrijdag))



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Some conclusions I

- Reductions noise levels found are poor, due to:
 - Noise levels are influenced by works (sewer)
 - Noise levels are influenced by wind direction
 - Noise levels are influenced by seasonal effects
 - Other kind of activities in the park
 - Other type of visitors
 - Less biking & walking, more cars
- Outcomes questionnaire , next slide



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Some conclusions II

- Findings questionnaires
 - Appreciation regarding noise did not increase
 - Overall appreciation did not increase

Due to other public/visitors

Due to other activities

Which is due to the season



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**thank you
for your attention!**

see also www.quadmap.eu

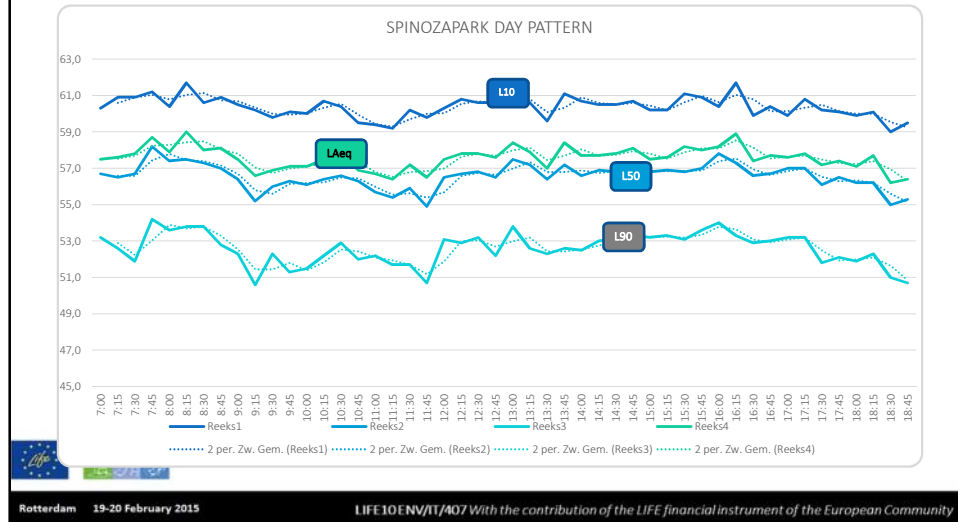


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Header



Wind distribution

