Promo event Smart Tooling

29 juni 2017

Integrated Workflow for (outside) inspections

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How can drones help ?

- More frequent inspections
- Less infrastructure downtime
- Safer inspections
- More objective & consistent data

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SPIE

avular

AIRobot DRONE PERFORMANCE EQUIPMENT

Challenges

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THE CHALLENGE FOR PROFESSIONAL DRONES:

Low risk and high speed acquisition of consistently high quality data

Fly Safely

No collisions!!!

Fly Accurately

Collect high quality images

Fly Automatically

Work faster
with a smaller crew

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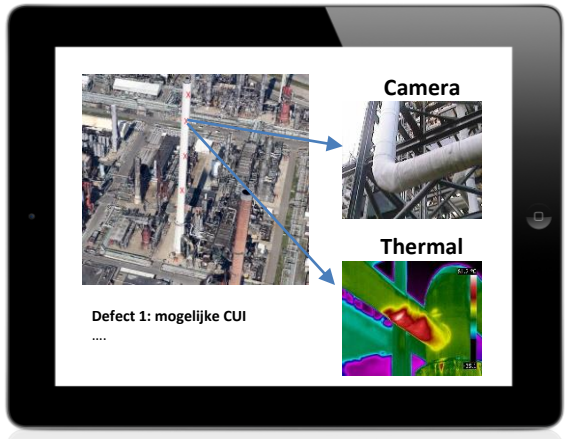
Goal of the project

Development of a **safe drone-platform** that can be used to collect on a **safe, reliable an consistent** manner **visual and thermal images** of a chemical installation, **georeference** them and show them on a 3D-model of the installation.



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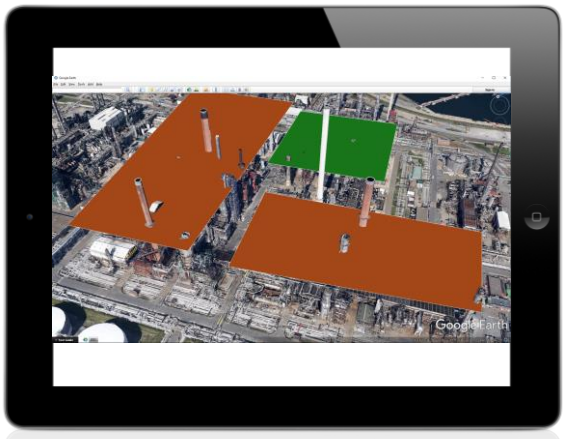
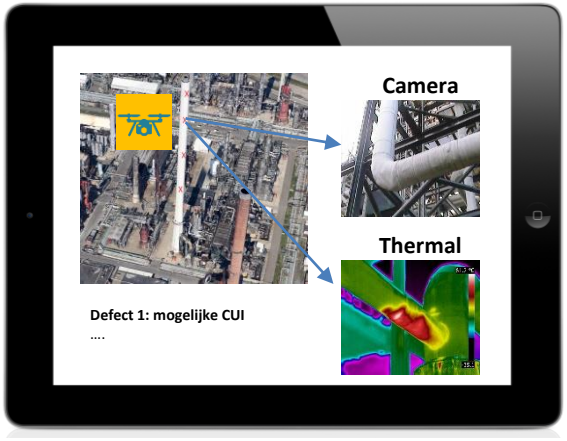
Goal of the project:

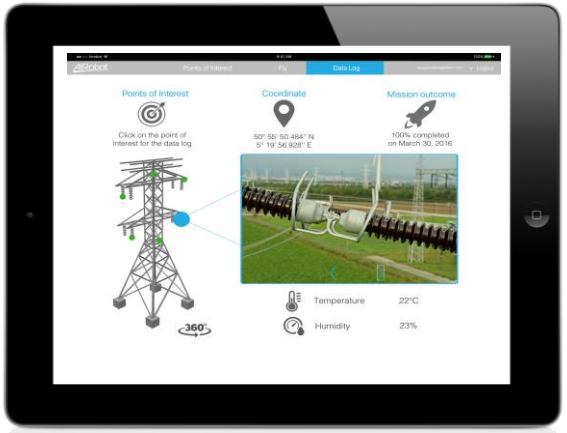
Before the flight
- Create inspection plan (POI, camera…)
- ATEX-zones, no-fly areas

During the Flight
- Position Drone wrt. 3D model
- Camera images
- Take pictures + make notes

After the flight
- Analyze images
- Create inspection-reports
- Follow evolution over time







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Planning

Timing	Item
2017 Q3	Mock-up software
2017 Q4	Demo software
2018 Q1	Test platform, ready to fly
2018 Q2	Beta version software
2018 Q4	Final Prototype of platform & software

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Questions for the audience

How can we help you with visual and thermal images of areas that are difficult to reach ?

- Pre-inspection to determine where to apply NDT ?
- Type & size of defects ?
- How frequent do you need inspections ?

How can you help us ?

- Industrial Partners:
- Test locations (installations with known problems)
- Join manual inspection

- Academic Partners:
- How to optimize flightpath to create 3D-models with the least amount of pictures ?
- Small, low weight, low power NDT sensors

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