

## Workshop Smart Inspectors: Unmanned Aerial Systems for Environmental Monitoring

**Date:** Friday October 25, 2013, from 9:30 till 16:00

**Location:** Gaia building, Campus Wageningen University, Wageningen, The Netherlands

**Contact:** Lammert Kooistra ([Lammert.kooistra@wur.nl](mailto:Lammert.kooistra@wur.nl)) or Bastian Hoffmann ([Bastian.Hoffmann@hochschule-rhein-waal.de](mailto:Bastian.Hoffmann@hochschule-rhein-waal.de))

**Workshop website:** <http://www.smartinspectors.net/wiki/doku.php?id=public:workshops>

To support environmental management there is increasing need for timely, accurate and detailed information on our land. Within the project Smart Inspectors (<http://smartinspectors.net>), a network of seven organizations from research and industry, we are investigating the opportunities to use Unmanned Aerial Systems (UAS) for environmental monitoring. The project started in March 2012 and will last for 2.5 years.

Now that Smart Inspectors is already one year on its way, we would like to present our progress to the broader UAS community and discuss with potential users their requirements for UAS services in the field of precision agriculture and crop monitoring, habitat mapping, water quality assessment and mapping of erosion and land degradation.

Therefore we would like to invite you to participate in the experts and users workshop where we will present our progress and experiences. In addition, we have invited experts who will give more background on the current status of UAS related to user requirement assessment, legislation and the preparation of an operational UAS service. The program below gives an overview of speakers and topics covered.

Participation to the workshop is without costs. **For registration, send an email to Bastian Hoffmann** ([Bastian.Hoffmann@hochschule-rhein-waal.de](mailto:Bastian.Hoffmann@hochschule-rhein-waal.de)) stating your name, organization, and email-address. **Deadline** for registration is October 18, 2013.

We hope to welcome you in Wageningen!

Rolf Becker (project coordinator, Hochschule Rhein-Waal)  
and Lammert Kooistra (Wageningen University)



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## **Program workshop Smart Inspectors, Friday October 25, 2013**

- 9:00 Walk in with coffee
- 9:30 Opening workshop
- 9:40 Overview Smart Inspectors project (Rolf Becker, Hochschule Rhein-Waal)

### **Session sensors, platforms and processing**

- 10:00 Development of lightweight hyperspectral sensing systems for UAS (Juha Suolamainen, Wageningen University)
- 10:20 Development of radar systems for UAS (Tobias Klein, IMST)
- 10:40 Digital Surface Models from VHR ortho-images using Structure for Motion techniques (Niels Anders, Wageningen University)
- 11:00 Coffee

### **Session UAS applications and legislation for UAS**

- 11:15 UAS applications in agriculture (Petra van Vliet, BLLG and Clara Berendonk, Haus Riswick)
- 11:35 UAS applications for soil degradation assessment (Manuel Seeger, University of Trier and Saskia Keesstra, Wageningen University)
- 11:55 UAS applications for environmental monitoring (Hochschule Rhein-Waal)
- 12:15 UAS regulations: current status and development (Koen Meuleman, VITO)
- 12:40 Lunch with demonstrations

### **Session user requirements**

- 13:30 User requirements for UAS (Tamme van der Wal, Aerovsion)
- 13:50 UAS applications for habitat monitoring (Sander Mucher, Alterra)
- 14:10 Experiences from an operational UAS service (Rob van Heeswijk, Ecoflight)
- 14:30 Coffee

### **Session UAS network building**

- 15:00 Towards an UAS knowledge Network (Rolf Becker, Hochschule Rhein-Waal and Lammert Kooistra, Wageningen University)
- 15:20 Discussion on priorities and perspectives for an UAS knowledge Network
- 16:00 Closure of workshop and drinks

## Route information

Location of workshop:

Meeting room Gaia1

Wageningen Campus

Droevendaalsesteeg 3

Building 101

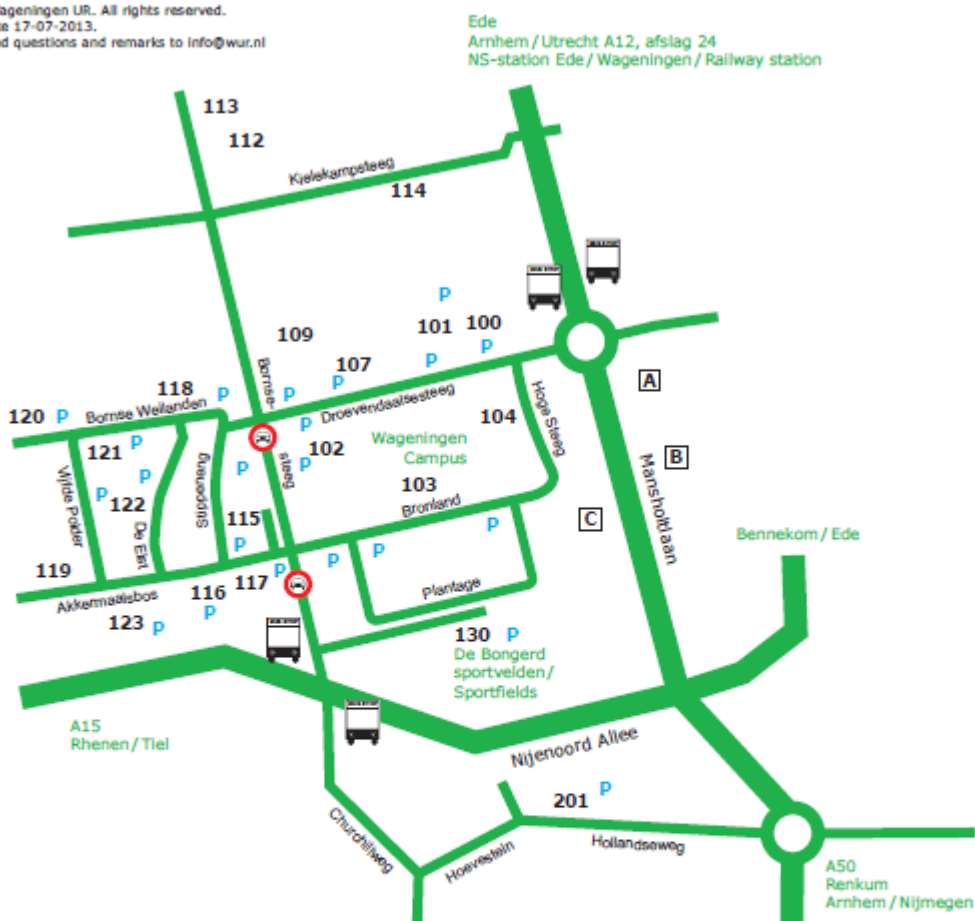
6708 PB Wageningen

<http://www.wageningenur.nl/en/location/Gaia-building-number-101.htm>

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100 Lumen	Droevendaalsesteeg 3	117 Nexus	Akkermaalsbos 14
101 Gaia	Droevendaalsesteeg 3a	118 Axis	Bornse Weilanden 9
102 Forum	Droevendaalsesteeg 2	119 Triton	Vijfde Polder 1
103 Orion	Bronland 1	120 Carus	Bornse Weilanden 5
104 Atlas	Droevendaalsesteeg 4	121 Innovatron	Bornse Weilanden 4
107 Radix	Droevendaalsesteeg 1	122 Zodiac	De Elst 1
109 Radix Serre, Radix Klima, Radix Agros	Bornsesteeg 48	123 Vitae	Akkermaalsbos 2
112 Nergena	Bornsesteeg 10	130 Sports Centre de Bongerd (SCB)	Bornsesteeg 2
113 Schoutenhoef	Bornsesteeg 16	201 De Leeuwenborch	Hollandseweg 1
114 Droevendaal	Kieiekampsteeg 32		
115 Futurum/Impulse	Stippeneng 2		
116 Actio	Akkermaalsbos 12		

### Gebouwen / terrein niet-Wageningen UR / Non-Wageningen UR Buildings / Terrain:

**P** Parkeerterrein / Parking area



Buslijn 88 (Valleilijn) / Bus number 88 (Valleilijn)

**A** NIOO

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