#### **EUREF 2006**

## **National report of the Netherlands**

Jochem Lesparre (*Kadaster*)

#### Geometric infrastructure in NL

- AGRS.NL (basis)
- 06 GPS, LNR GlobalNET, NETPOS (RTK)
- GPS base points (passive)
- Height benchmarks (passive)
- Traditional triangulation points (abandoned)

#### AGRS.NL

#### Active GPS Reference System of the Netherlands

- Basis of ETRS89 in the Netherlands
- 5 (mainly) Trimble GPS stations
- 100 km distances
- 2 new stations will be added
- 1 station will be moved
- Operational since 1997

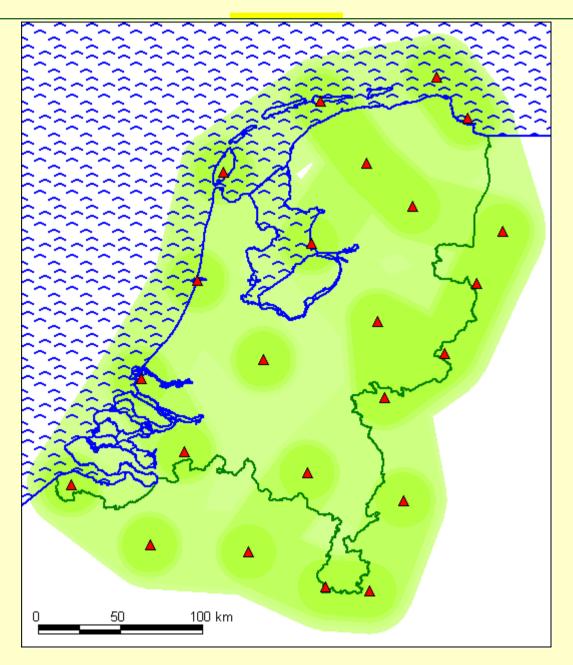
## AGRS.NL



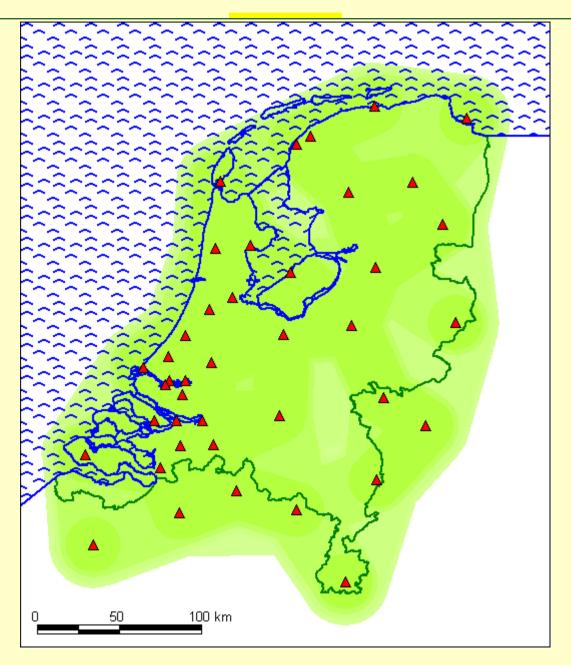
### **RTK** networks

- 06 GPS
- LNR GlobalNET
- NETPOS

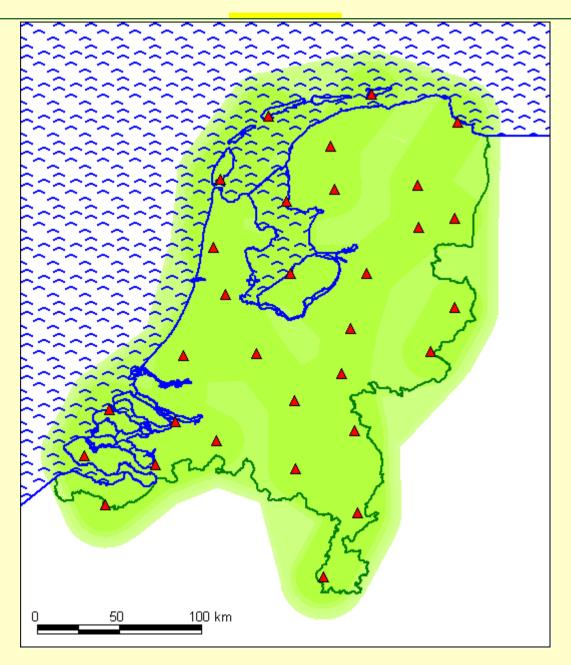
# 06 GPS



## **LNR GlobalNET**



## **NETPOS**



#### **06 GPS**

- Commercial RTK network
- 23 Topcon GPS + GLONASS stations
- Geo++ software
- Fully operational since 2003

### **LNR GlobalNET**

- Commercial RTK network
- 41 Leica GPS stations
- Leica software
- Fully operational since 2005

#### **NETPOS**

#### Netherlands Positioning Service

- Governmental RTK network
- 32 Topcon GPS + GLONASS stations
- 40 km distances
- Geo++ software
- Fully operational since 2005

### **GPS** base points

- > 400 passive points
- 10 km distances
- Suitable for GNSS observations
- Maintenance (1 year cycle) by cadastral surveyor (instead of triangulation service) since 2006

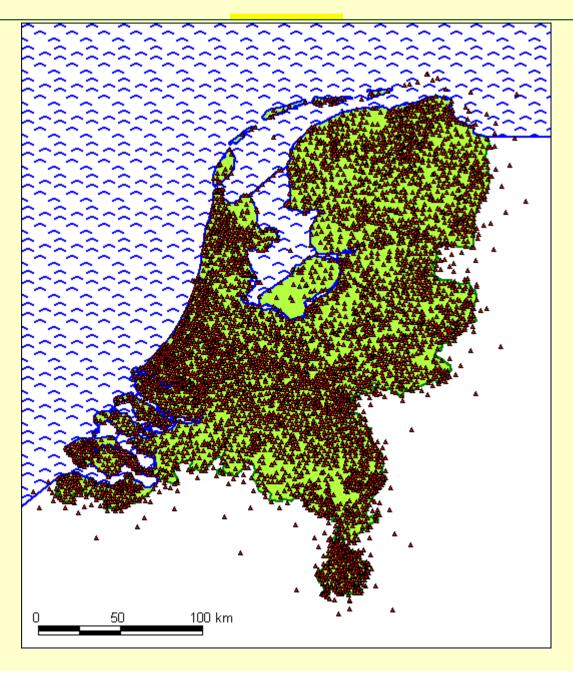
# **GPS** base points



## **Traditional triangulation points**

- 5500 passive points (church towers)
- 3 km distances
- Maintenance stopped since 2005

## **Traditional triangulation points**



### **Height benchmarks**

- Traditional benchmarks still necessary for water management
- 3<sup>rd</sup> maintenance cycle will be finished this year
- 4<sup>th</sup> maintenance cycle of 10 years will be planned

## Scientific geodetic research

Executed by Delft University of Technology

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Questions?