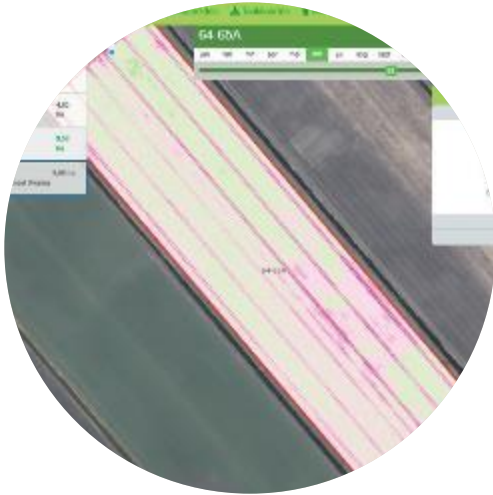


Meten is weten?

Kijken naar data

11 februari, Bram Veldhuisen



Meten is weten?

- Legenda's en andere manipulatie
- Resolutie
 - Tijd
 - Ruimte
 - Spectraal
- Waar?
- Machine aansturing

Manipulatie in grafieken

1

In most cases, by using a pie chart, the data is presented in a way that is easy to understand.

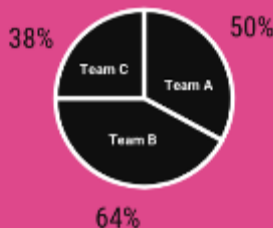


- Starting a small range
- Group A
- Group B

4

USING THE WRONG GRAPH

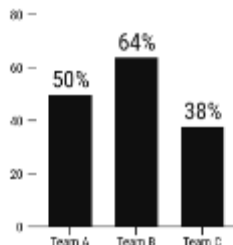
The type of graph you use should depend on the type of data you want to visualize. Using the wrong type of graph can skew the data. Writers will sometimes use the wrong type of graph on purpose.



MISLEADING

- Pie charts are used to compare parts of a whole, not the difference between groups.
- A different type of graph should be used to compare the three teams.

VS



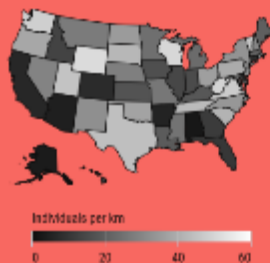
ACCURATE

- Bar graphs are better for showing the differences between groups.
- This chart is a better visualization of the data.

5

GOING AGAINST CONVENTIONS

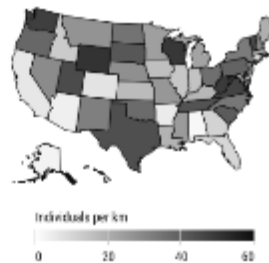
Over time, we have developed standards for how data is visualized. Flipping those conventions can make a graph confusing or misleading to readers.



MISLEADING

- Normally, darker shades are associated with density on a map but here, dark has been used to depict lower population density.
- This graph can confuse and mislead readers, who expect dark to represent a higher population density.

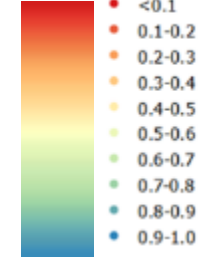
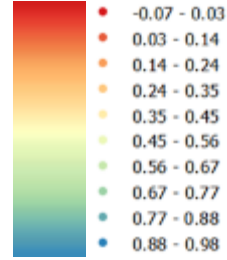
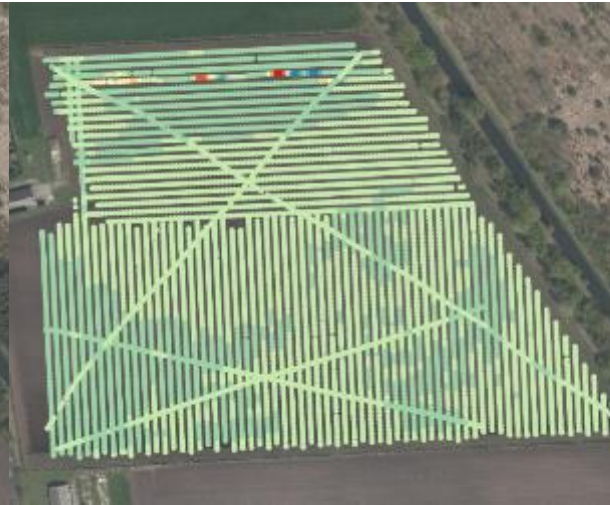
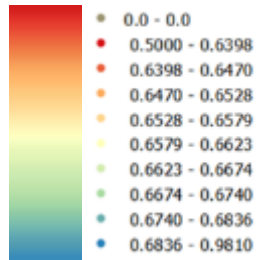
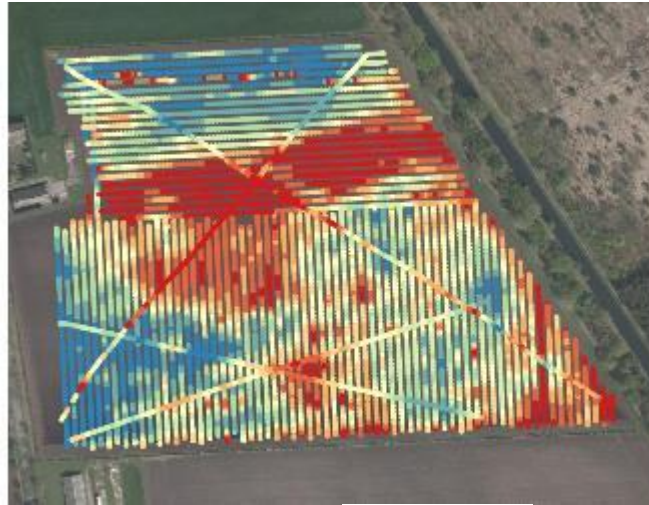
VS



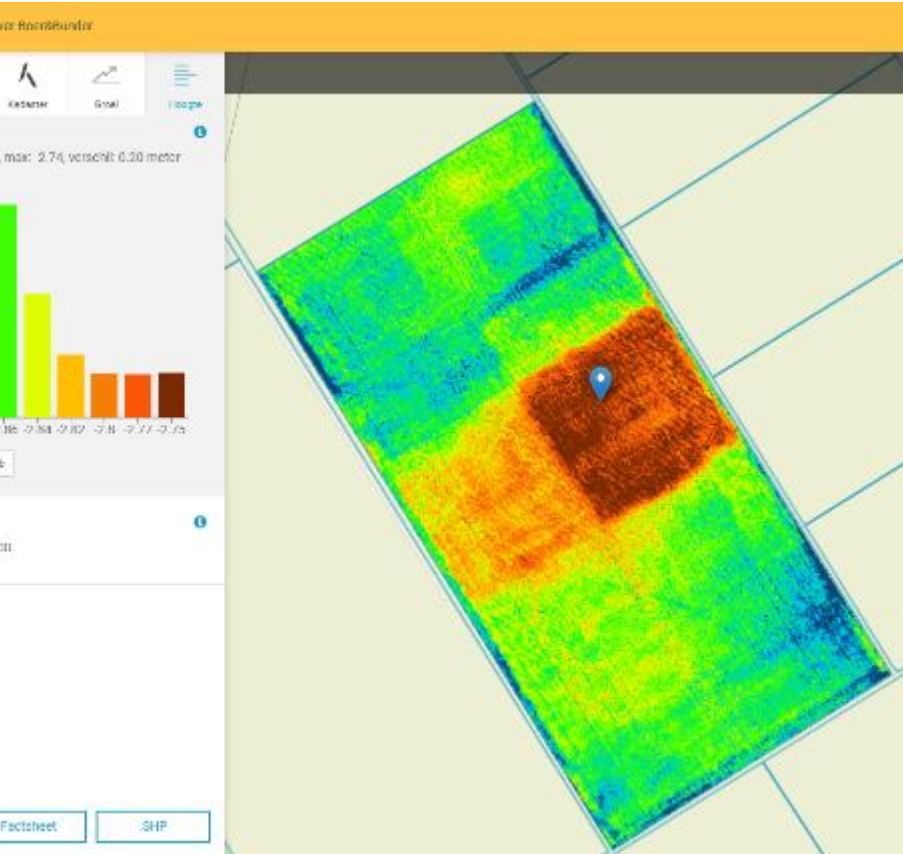
ACCURATE

- This map follows the convention of using lighter shades for lighter density and darker shades for higher density.
- Readers will intuitively know how to interpret the data.

Legenda's – spelen met kleuren

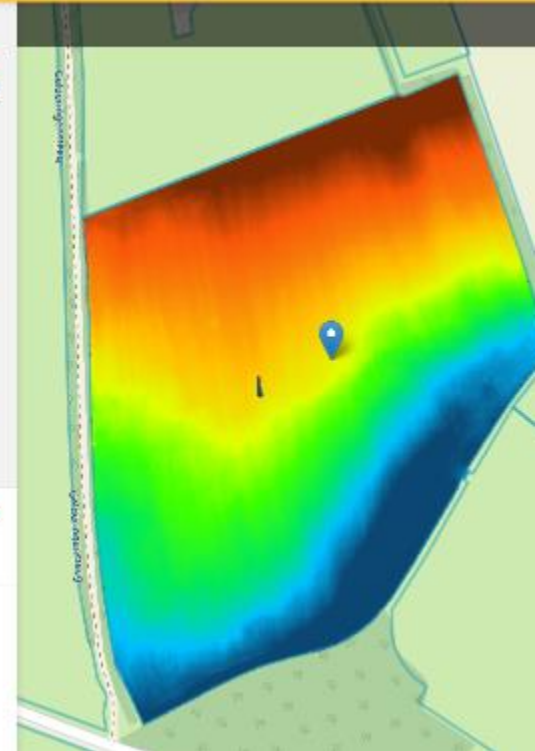


Legenda's – spelen met kleuren

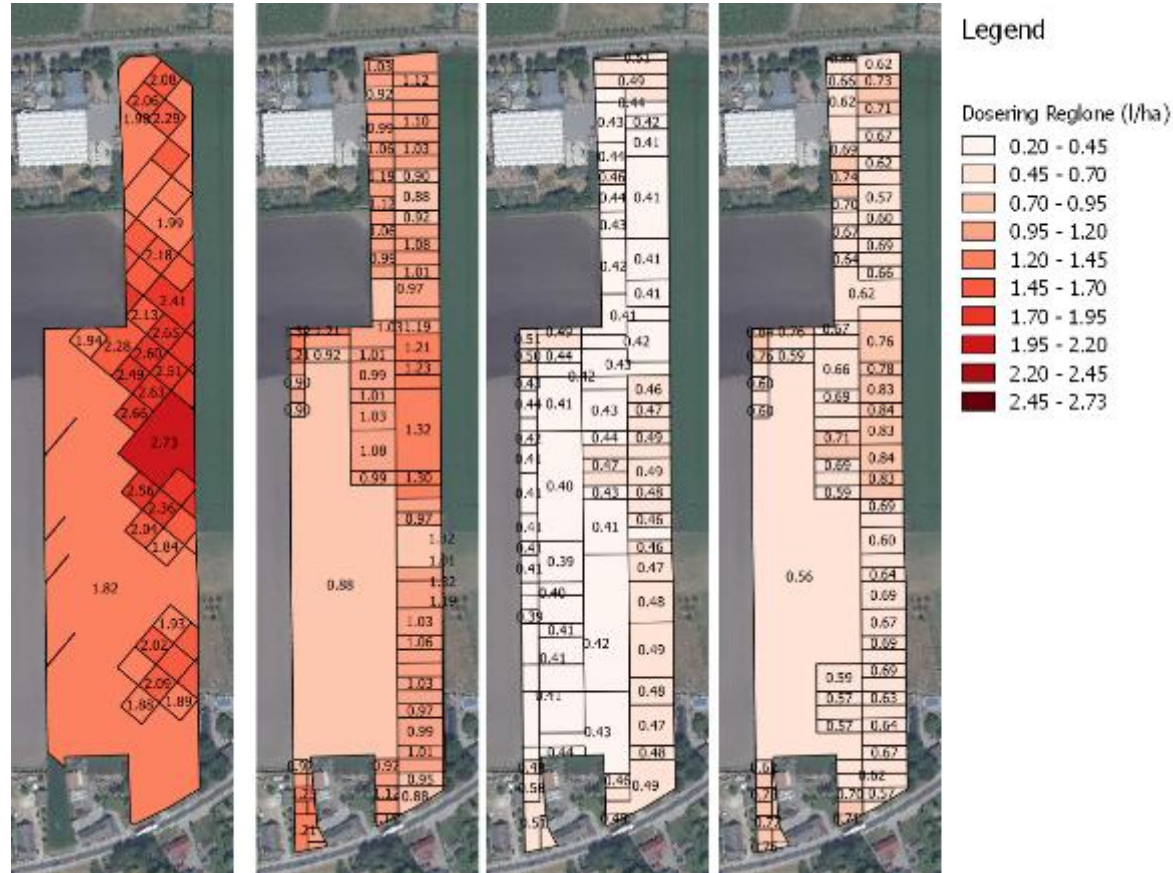


Natuur

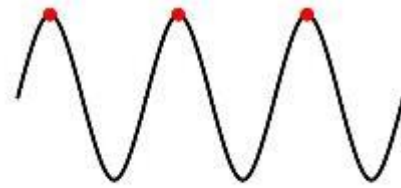
Valt niet binnen Natura 2000.



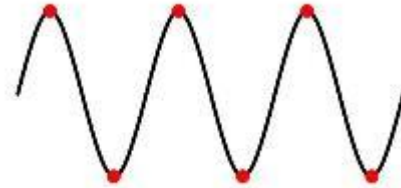
Legenda's – spelen met kleuren



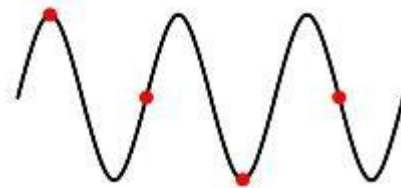
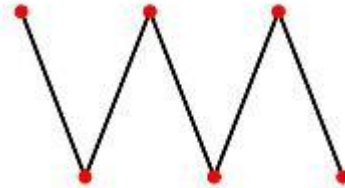
Resolutie



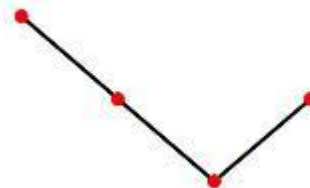
A
→
Sampled at f



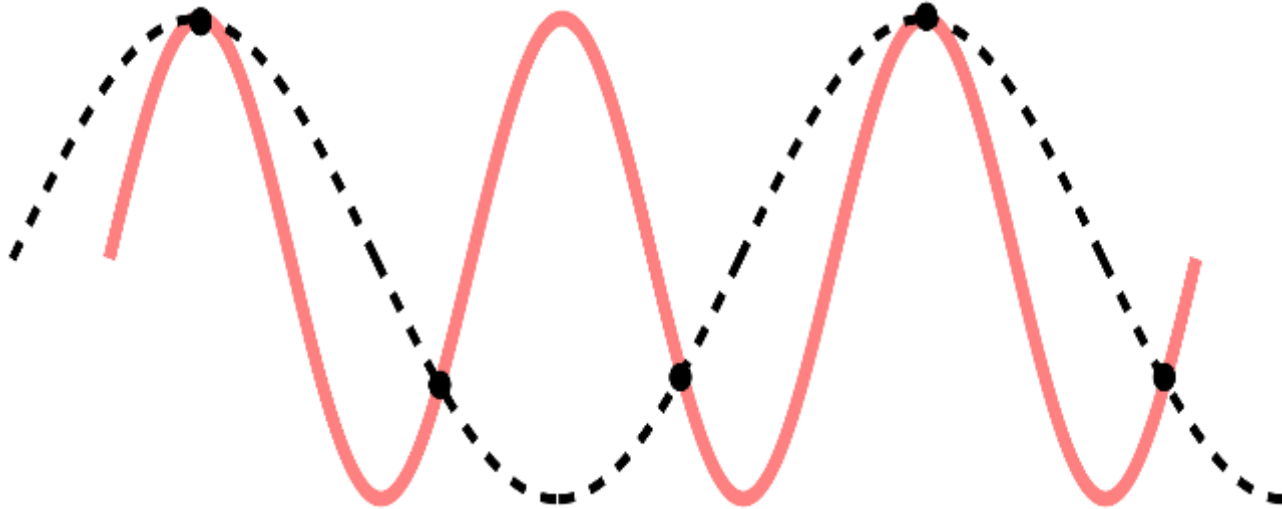
B
→
Sampled at $2f$



C
→
Sampled at $4f/3$

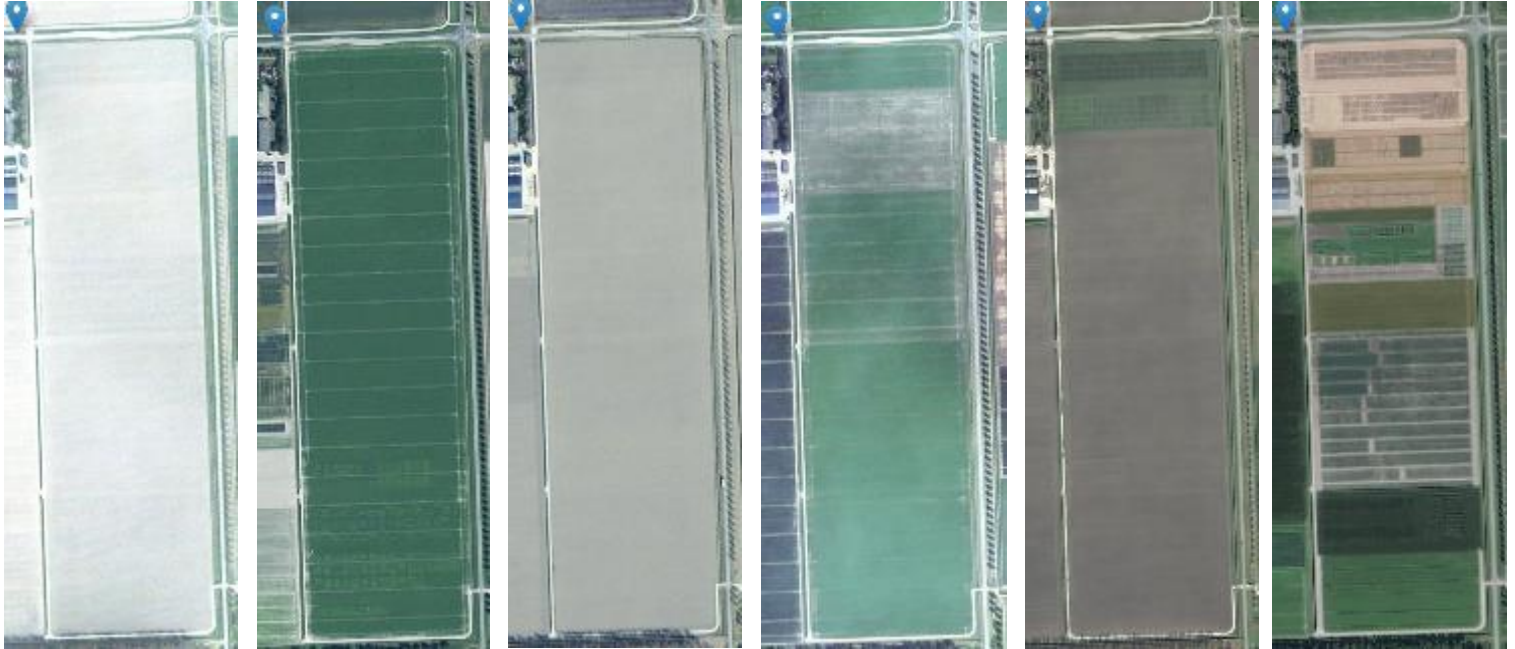


Resolutie



Resolutie – In tijd

■ Tijdig



Resolutie – In ruimte

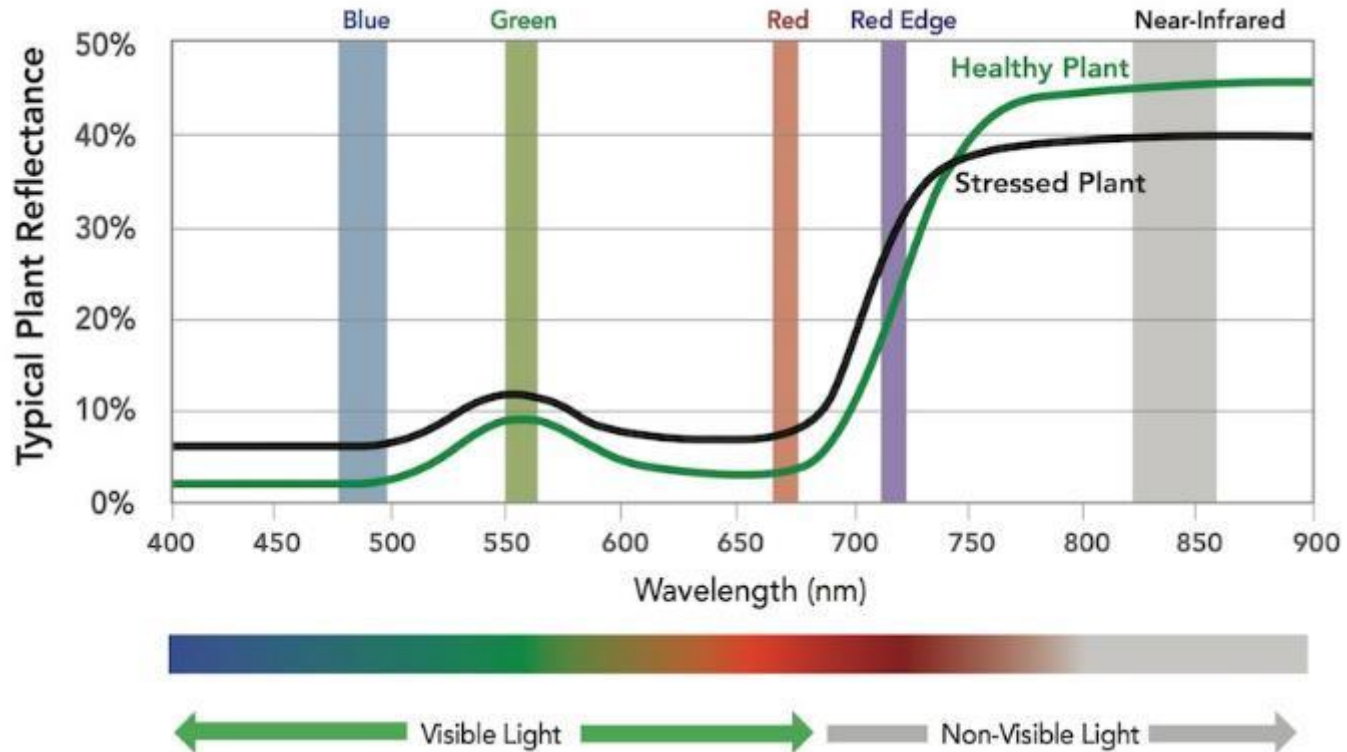
- 10m
- 5m
- 2.5m
- 1.0m
- 0.1m



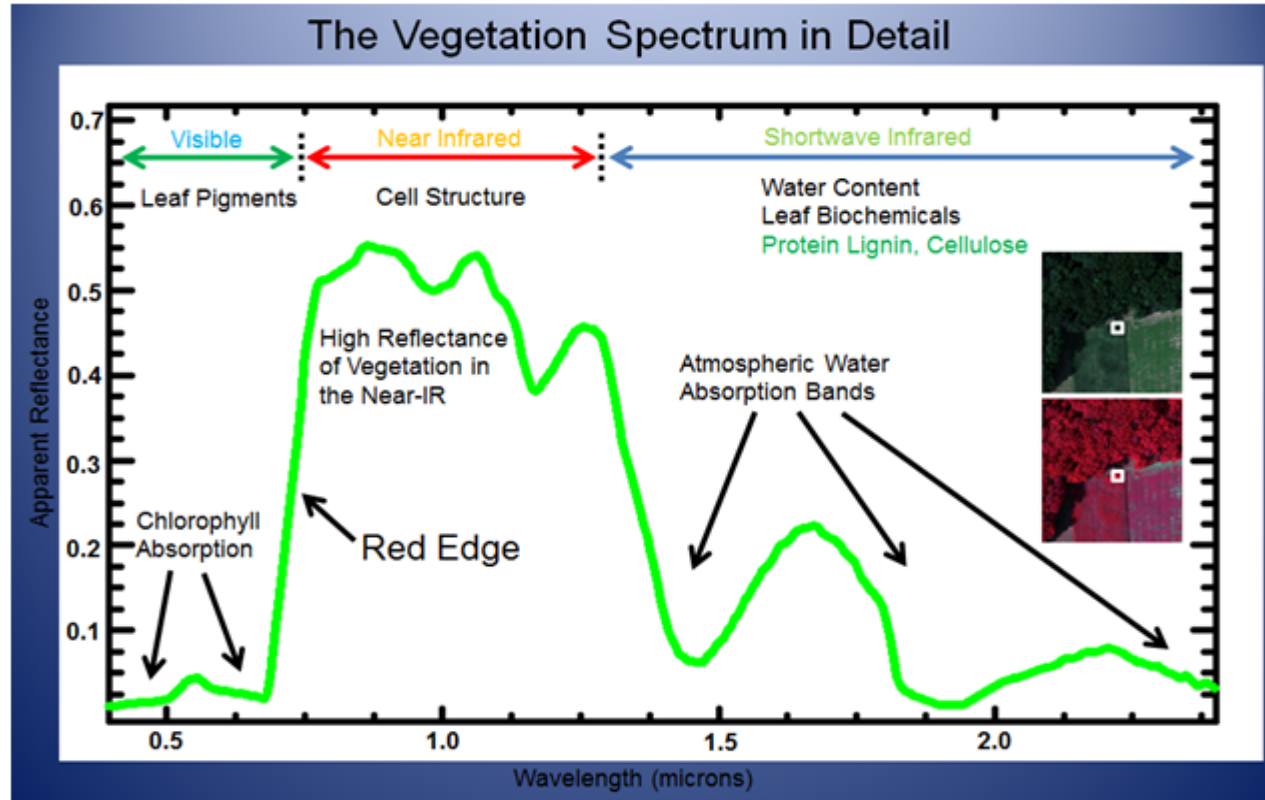
Resolutie – In ruimte



Resolutie – In Kleur

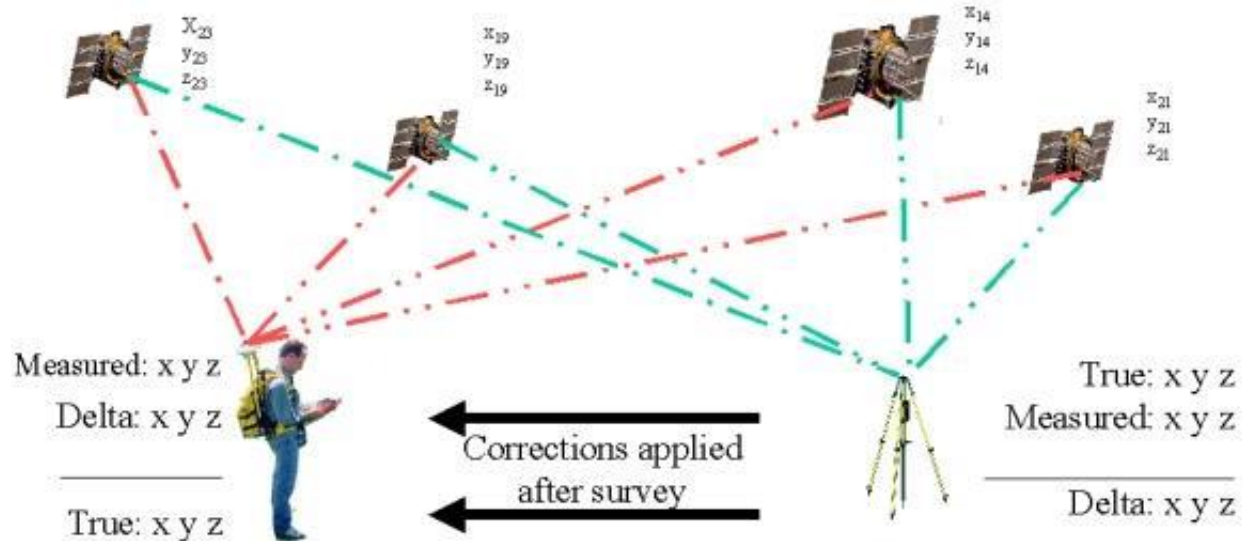


Resolutie – In Kleur

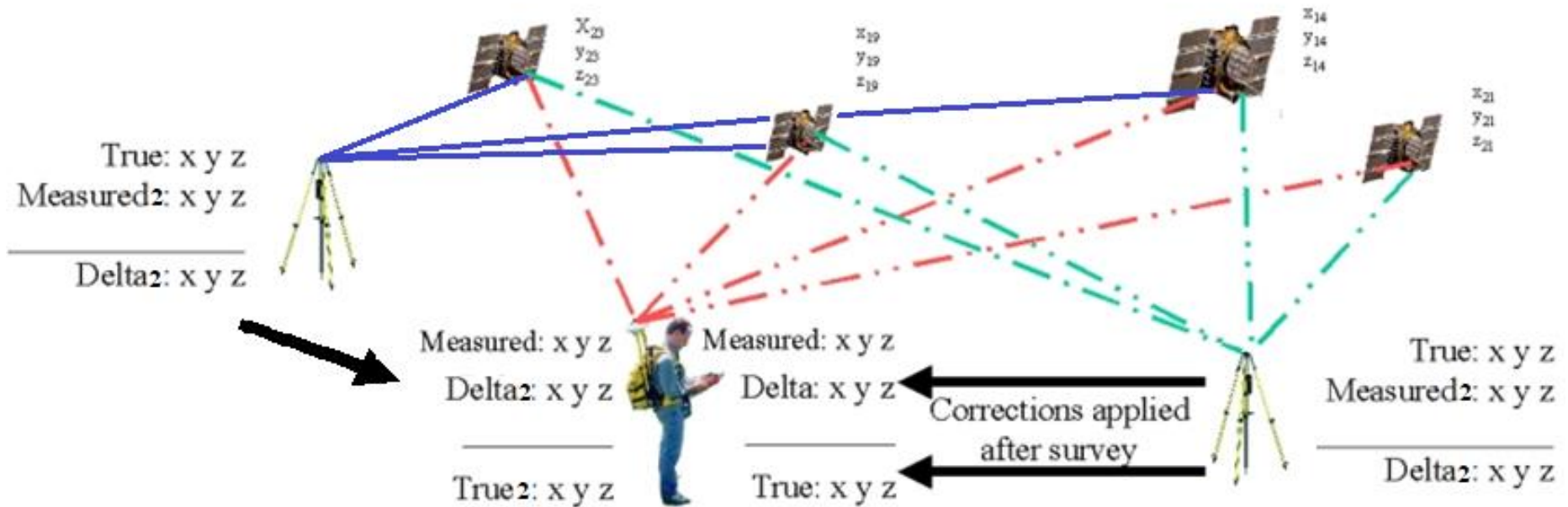


Nauwkeurigheid van positie

- Differential GPS
- Rekenmethode
- Magnetisch of echte Noordpool

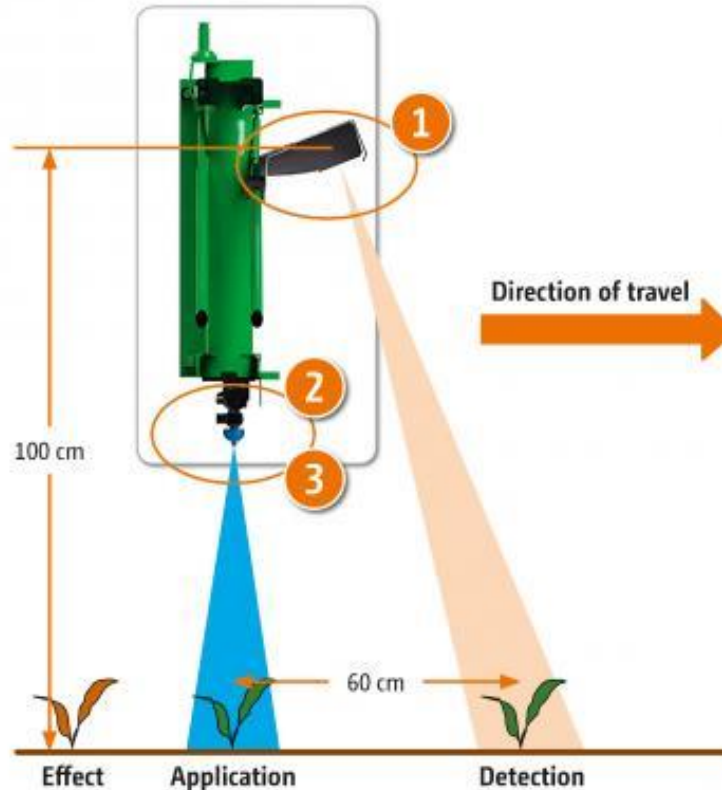


Nauwkeurigheid van positie

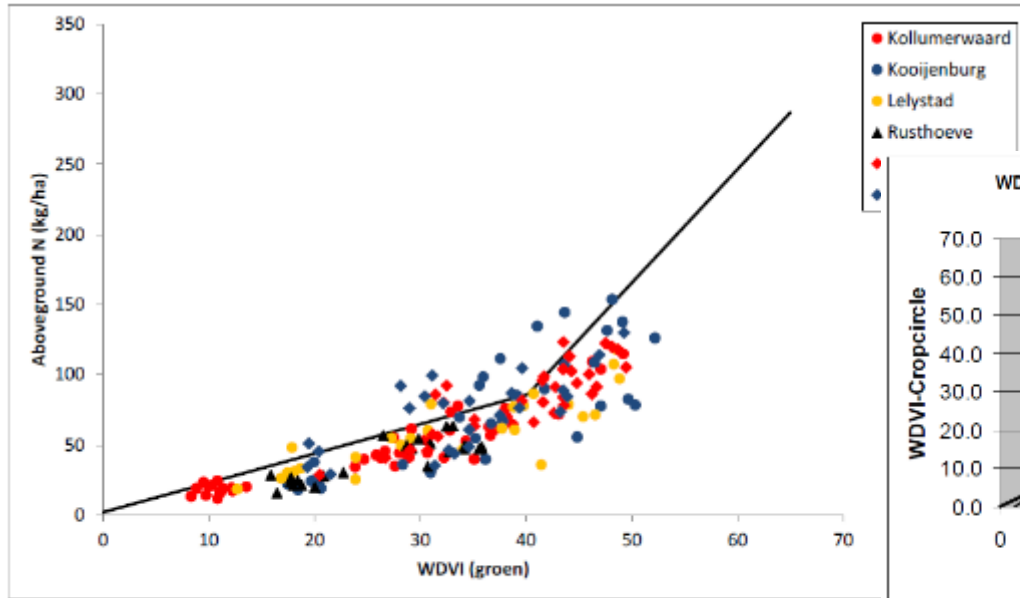


Nauwkeurigheid in aansturing

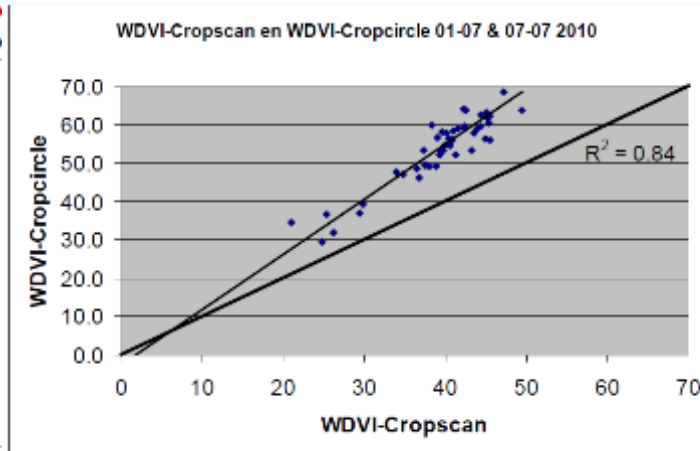
- Uitgelezen positie
- Vertraging in aansturing
- Invloed rij snelheid



Nauwkeurigheid van rekenregels



Figuur 41 Het verband tussen WDV en bovengrondse N-inhoud voor de zes in 2010 uitgevoerde metingen. De gebroken lijn geeft het door Booi gevonden verband weer



Figuur 48 Correlatie tussen WDV CropScan en WDV CropCircle (metingen op praktijkexperiment Claassen)

Meten is Weten?

Ja,
zolang je weet
wat je meet

