

Extended Core Group Meeting on AquaCrop: new member presentation: ULiège

Joost WELLENS

2-3 December 2019, Gammarth, Tunisia



1 ULiège

- Faculty of Sciences: (Arlon) Dep. Of Environmental Sciences and Management -
- Faculty of Agronomy: (Ghent) Agro-Bio Tech -

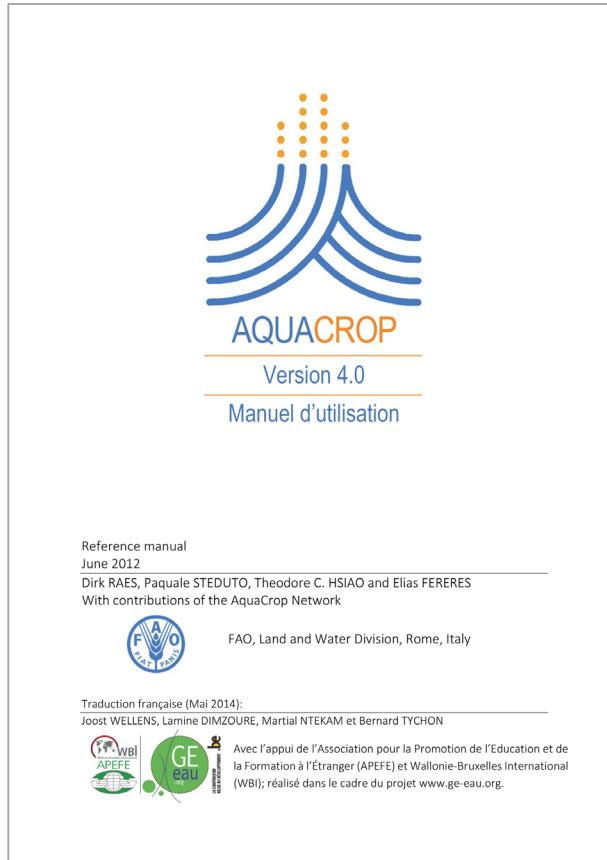
Training: ① Master in environmental sciences & management;
 ② Advanced master in developing countries;
 ③ Agronomy / Rural infrastructure engineering.



Research: ① Integrated Water Management / Irrigation
 ② Agro-Meteorology & Crop modelling
 ③ Food security
using: - Different satellite approaches on crop modelling
 - AquaCrop: FAO yield response crop model
 - Model coupling

2 ULiège & AquaCrop

- trainings -



A screenshot of a web browser displaying a MOOC course titled 'FUN MOOC ulg Les techniques d'irrigation'. The page shows a video player for an interview with Prof. Dirk Raes. The video frame shows two men sitting on a red sofa outdoors. The video controls indicate it's at 00:50 / 10:52, in 480p, and set to 1x speed. To the left of the video, there's a sidebar with course navigation links: M0 | Pour débuter le MOOC d'irrigation, M1 | Pourquoi irriguer et quelles en sont les conséquences?, Dans ce module..., M1.1 Pourquoi irriguer?, M1.2 Y a-t-il assez d'eau pour l'irrigation ?, M1.3 L'assèchement de la mer d'Aral, un exemple d'une irrigation avec conséquences dramatiques, M1.4 L'impact de la gestion de l'eau sur l'économie et la société, M1.5 Comment planifier une irrigation correcte? Le modèle Aquacrop., and M1.6 Module de test.

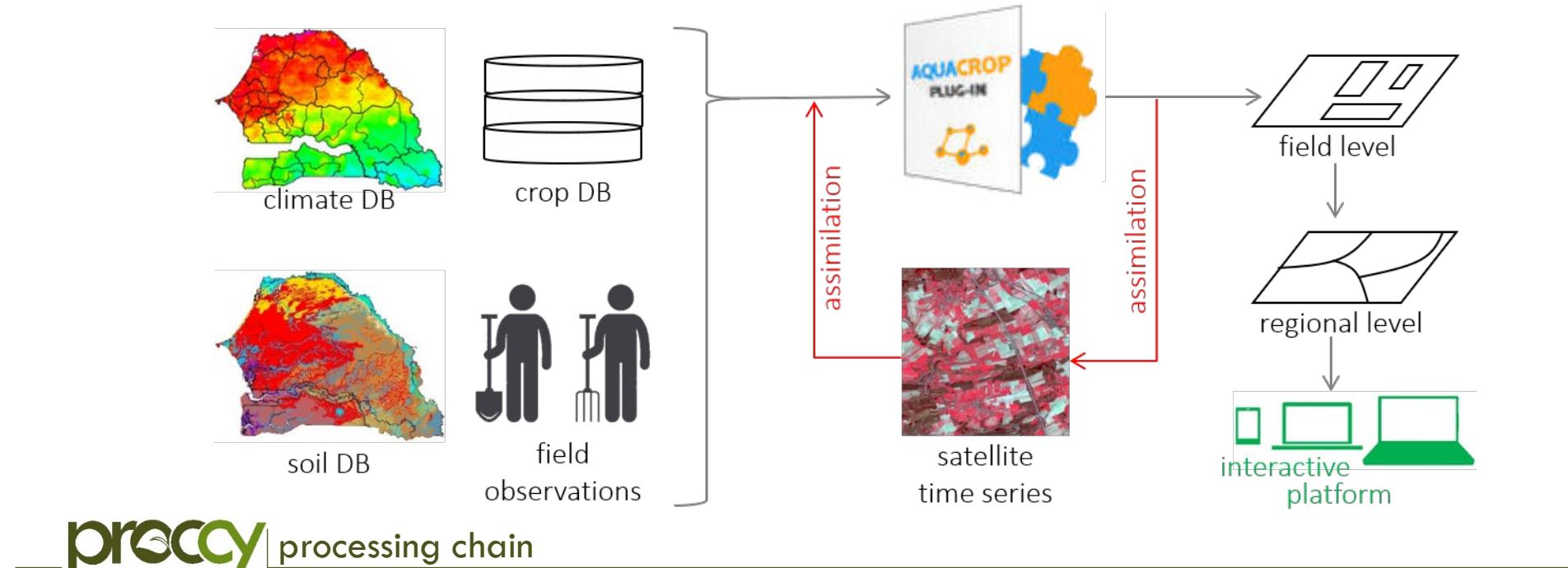
- ULiège master programs;
- Cooperation projects;
- IAEA – FAO.

- French manual;
- MOOC.

- Use of Open Data.

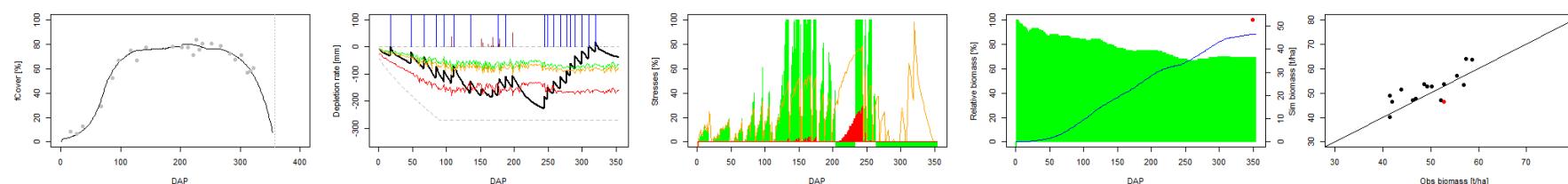
3.i AquaCrop → PROCCY

- work flow & dashboard -



proccy[®]

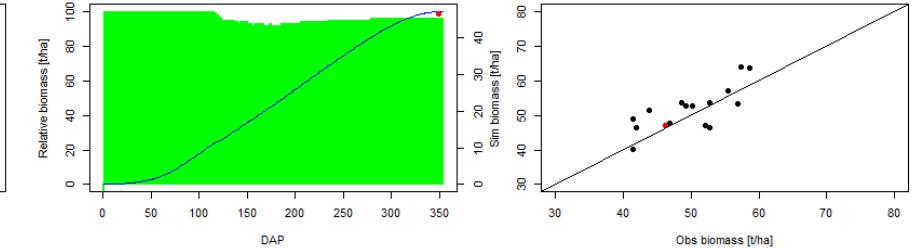
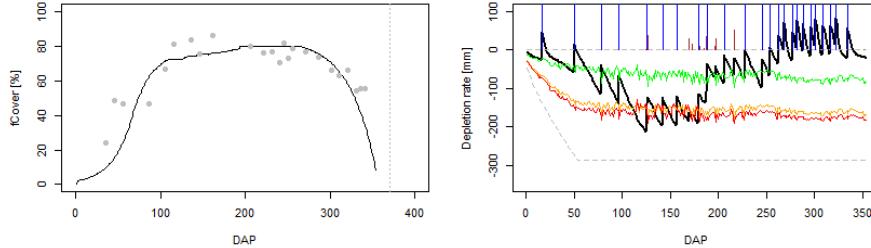
processing chain
dashboard



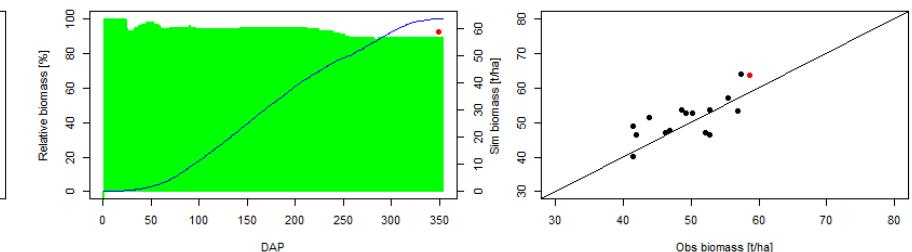
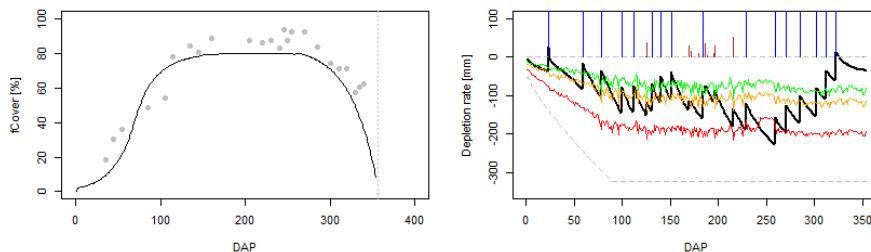
3.ii AquaCrop → PROCCY

- decision/management support -

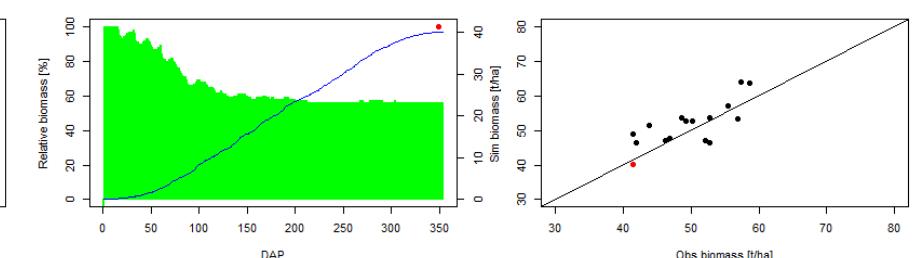
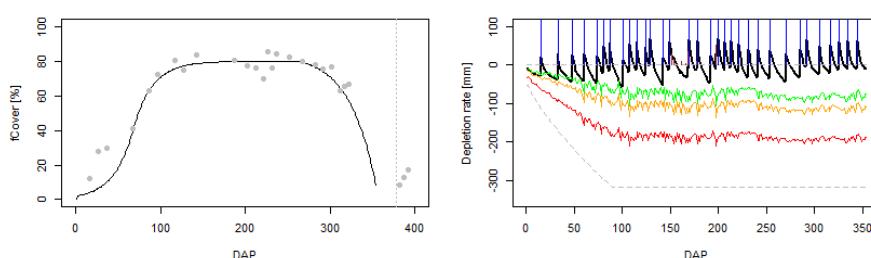
Field C6A:



Field B5A:

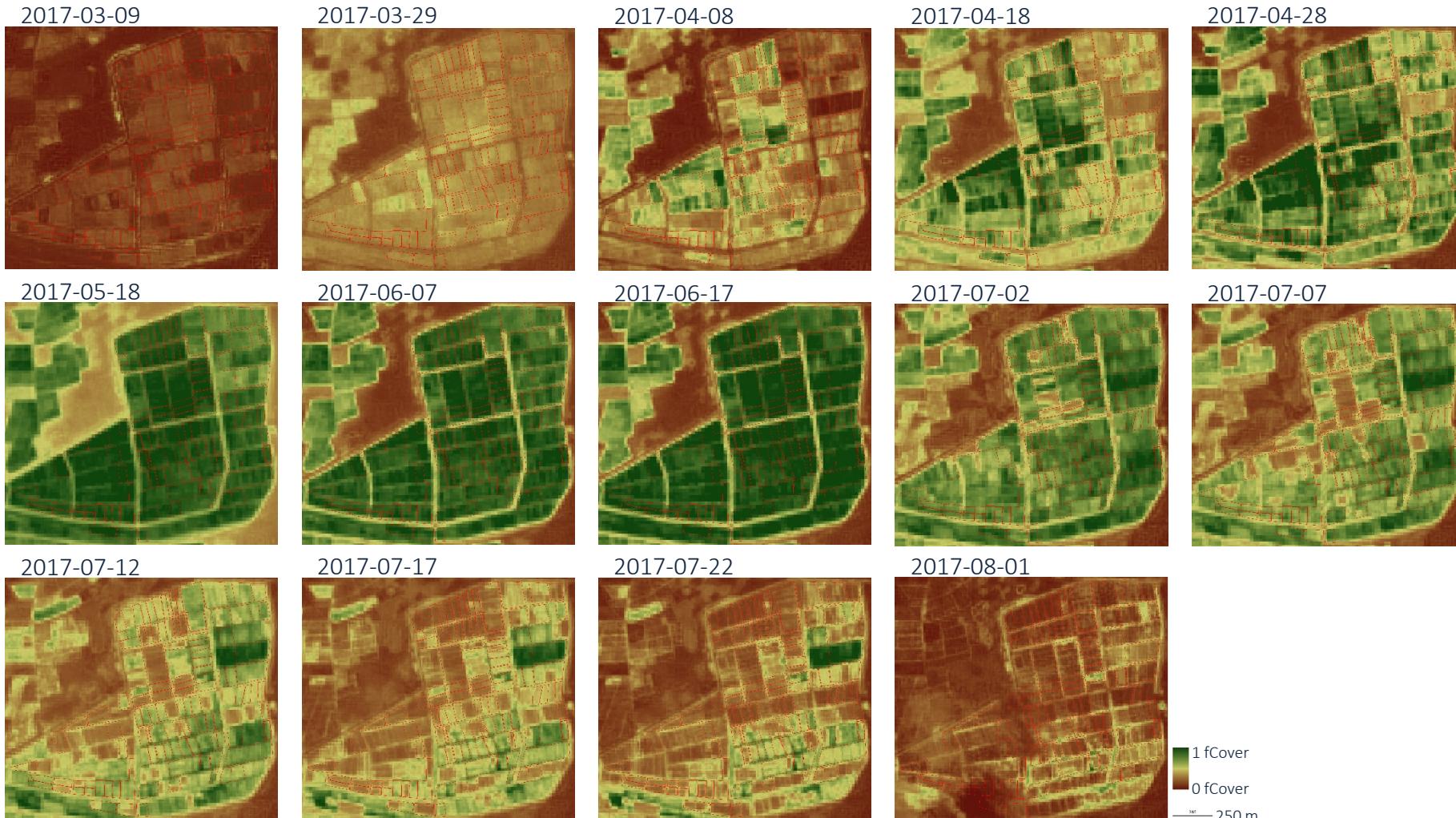


Field F5:



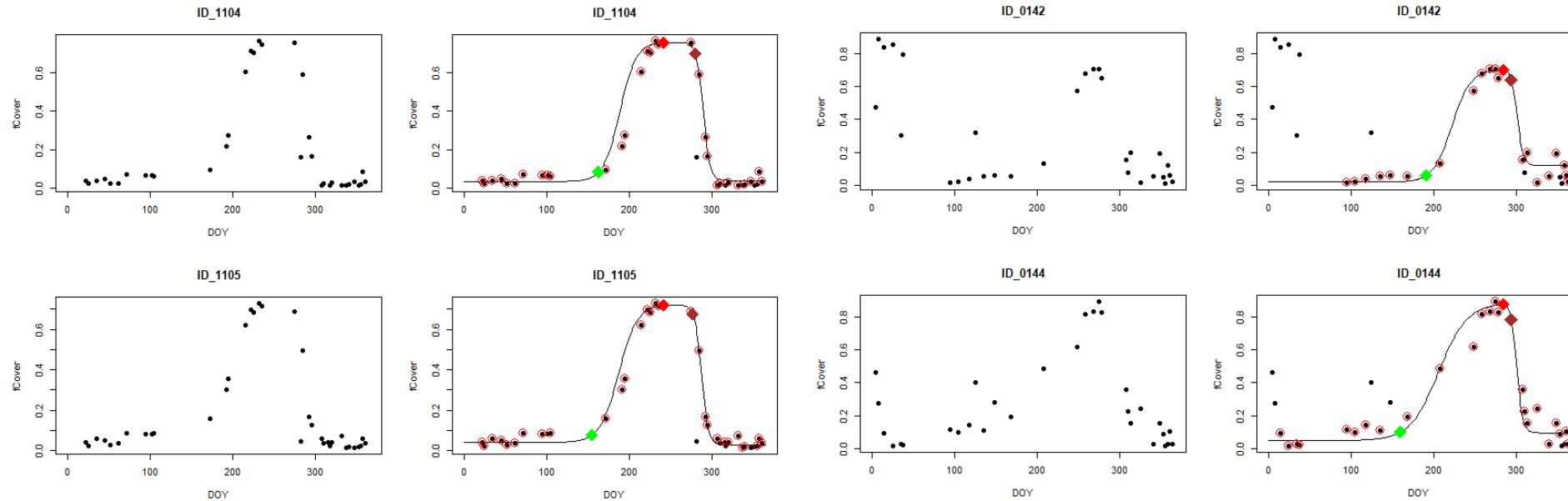
4.i Assimilation

- Sentinel-2 time series -



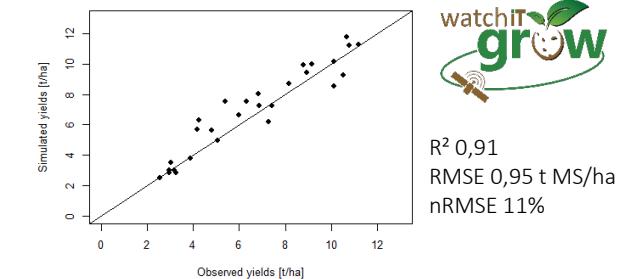
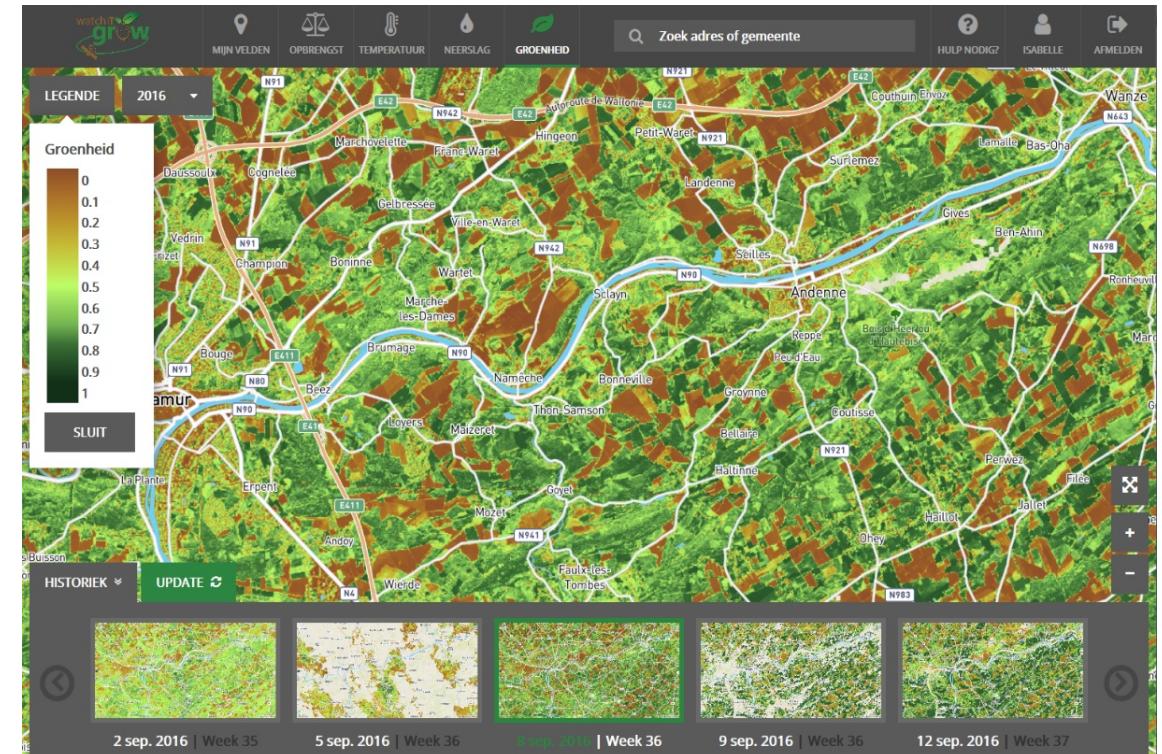
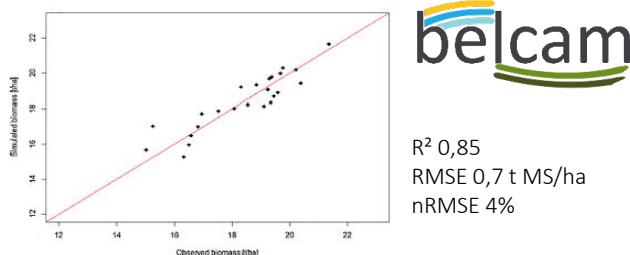
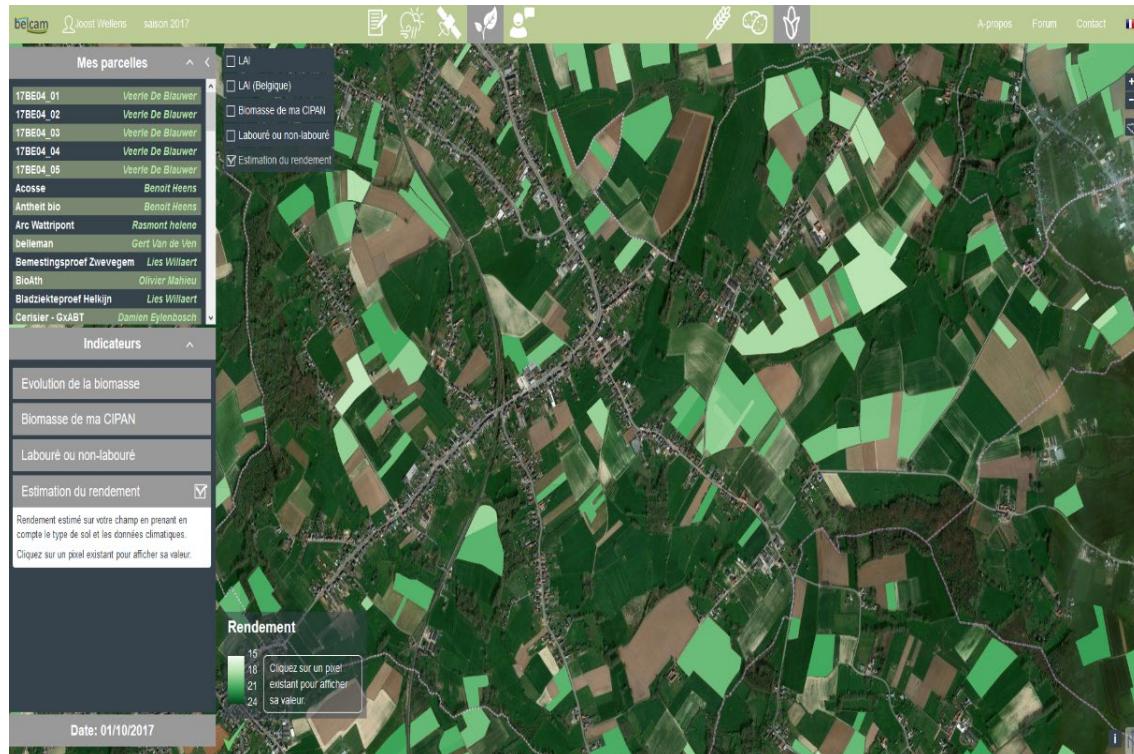
4.ii Assimilation

- curve fitting & phenotyping -



5 Some applications

- regional yield estimates -



6 Ongoing projects

- same idea; ≠ background; ≠ target -



: maize (N trials), winter wheat and potatoes;



: winter wheat;



: rice and sugar cane (saline soils);



: durum wheat;



: sorghum (weeds).

Shukran!



www.eed.uliege.be



Prof. Tychon B. &
Baki C., Denis A., Diallo D., El Jarroudi M.,
Gbaguidi F., Heidarian R., Jaquemin I., Deroy J.,
Jupsin H., Lang M., Nguyen T., Ozer P., Palé S.,
Sall M.T., Sallah H., Some W., Sossey K.,
Wellens J., Yazza M.