

Clement ATZBERGER &
Heide SPIEGEL (AGES)

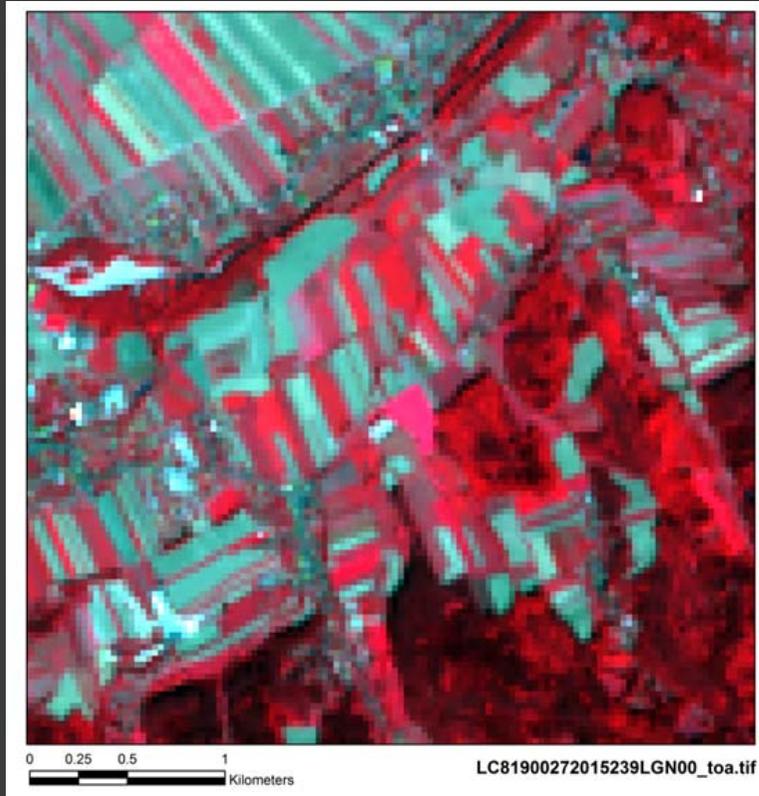
Workshop EONext: Erdbeobachtung in Österreich – 28 Februar 2019 – BMVIT

DIGITALE LANDWIRTSCHAFT UND COPERNICUS

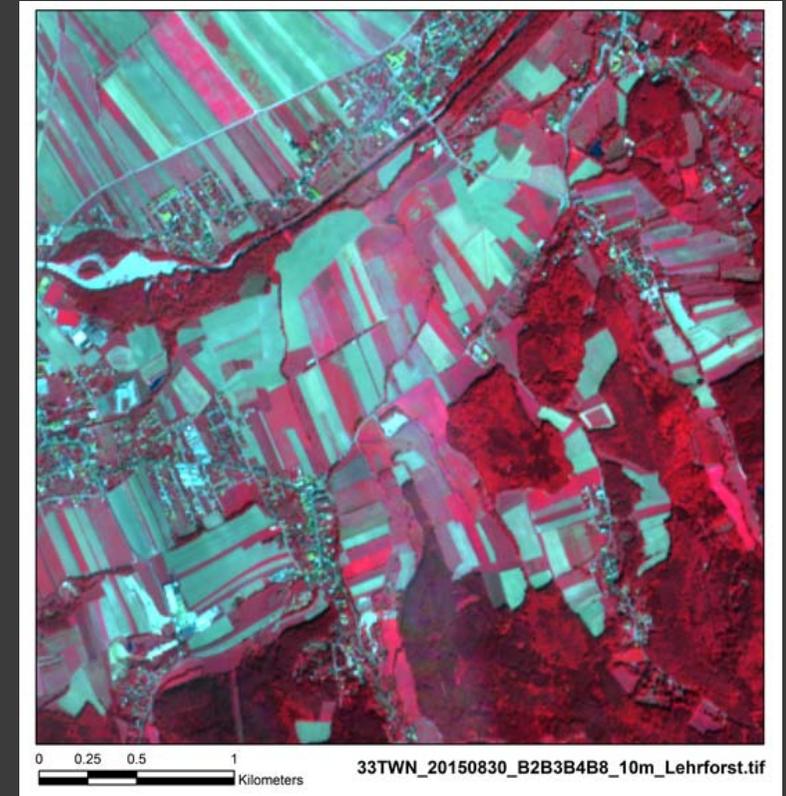


*Spatial
resolution of
10m*

DER “GAME CHANGER”



Landsat @30m

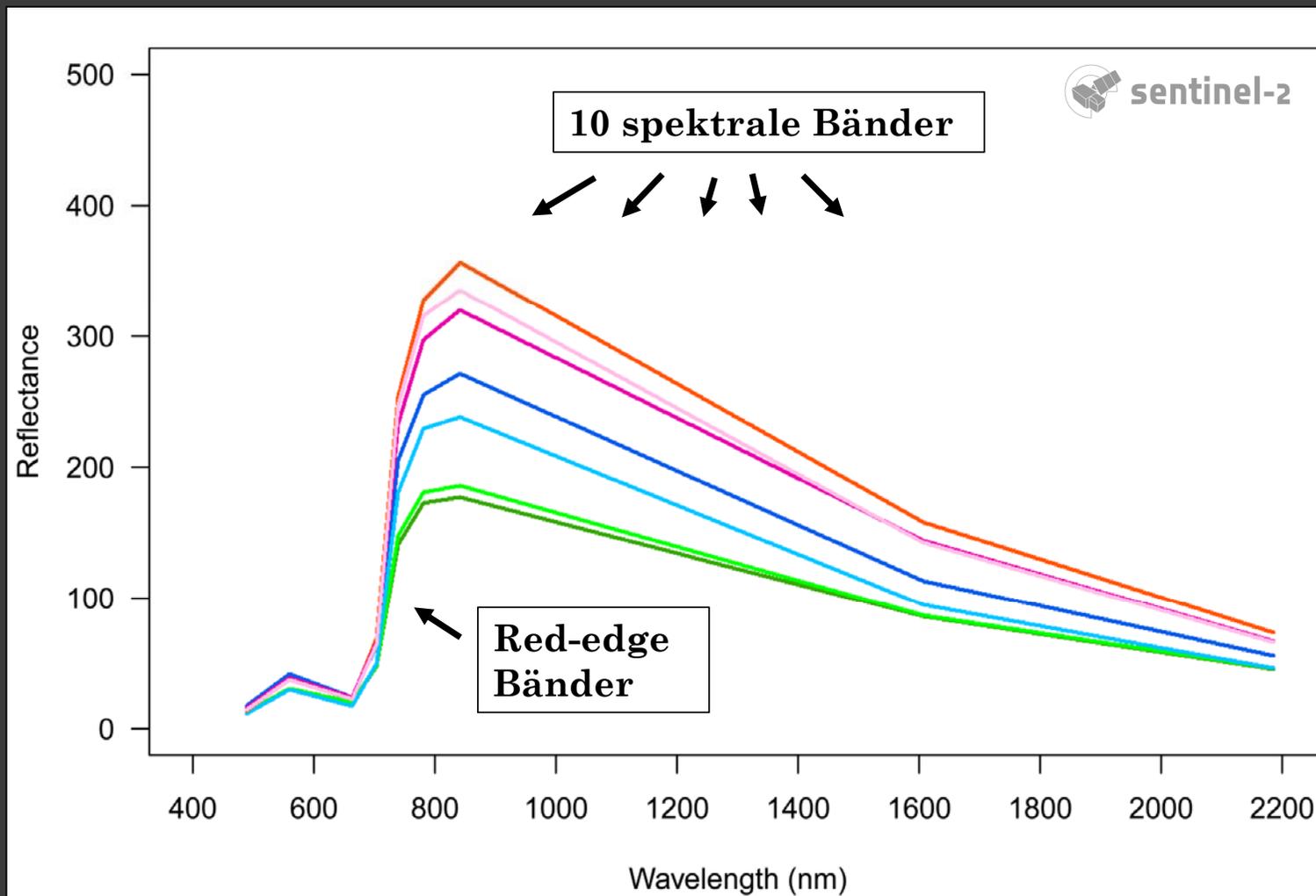


Sentinel-2 @10m



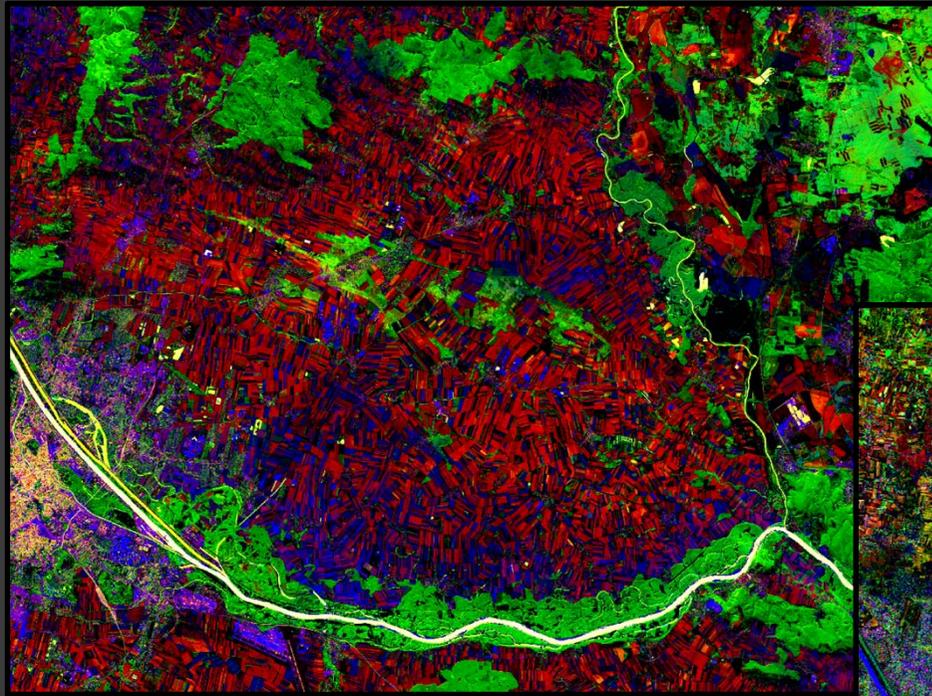
Rich and uncorrelated information

DER "GAME CHANGER"

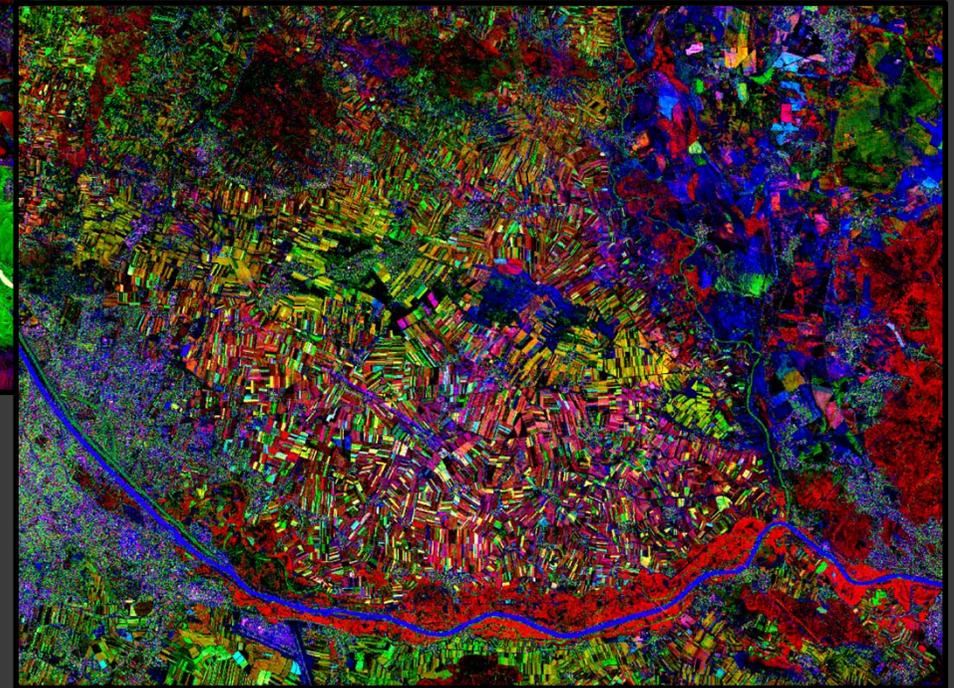


*Rich and
uncorrelated
information*

DER “GAME CHANGER”



PCs: 1-2-3: 30/08/2015



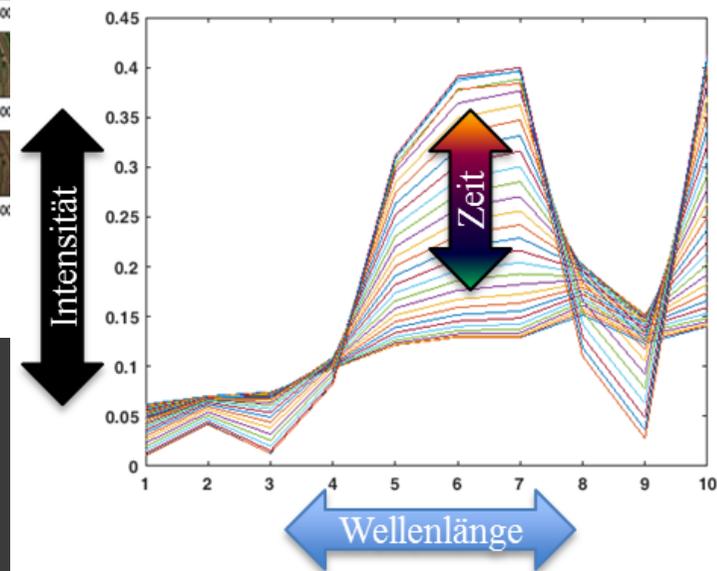
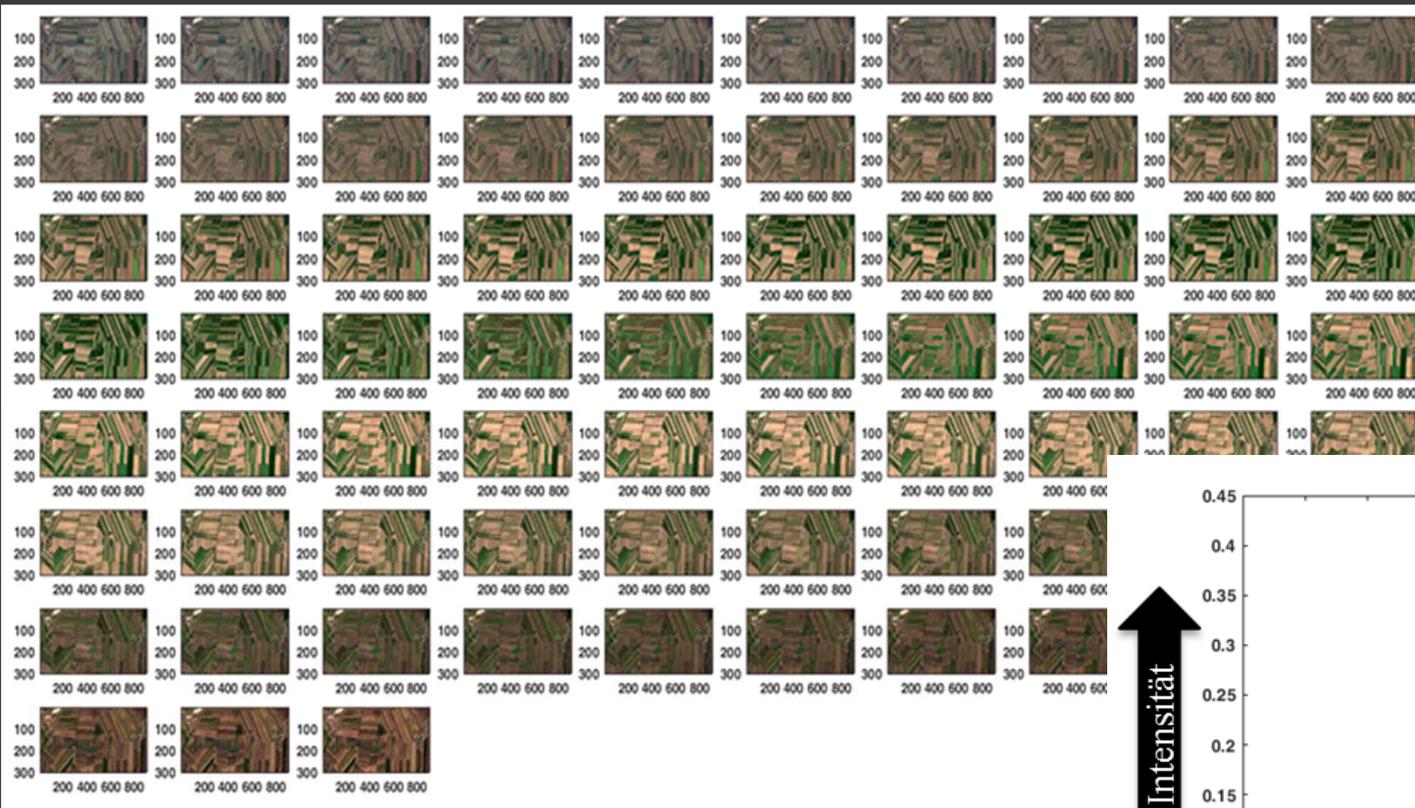
PCs: 5-6-7: 30/08/2015



5-daily
observations
everywhere

Free & open

DER "GAME CHANGER"



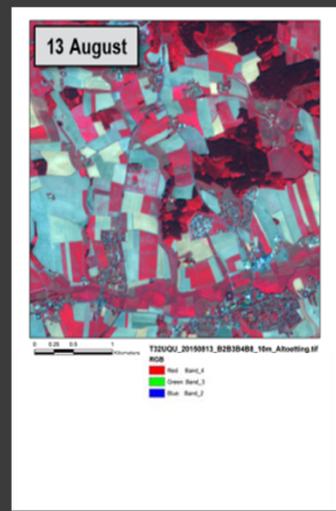
Vor-Prozessierung: 73 wolkenfreie Datensätze pro Jahr
aus Kombination von S2 (optisch) und S1 (Radar)

Temporal information

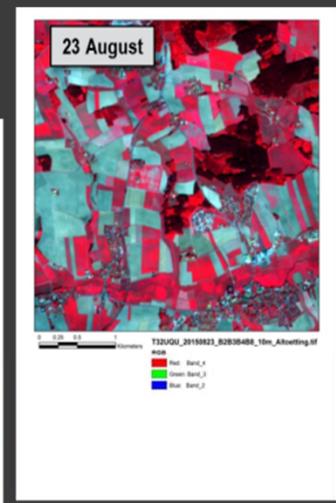
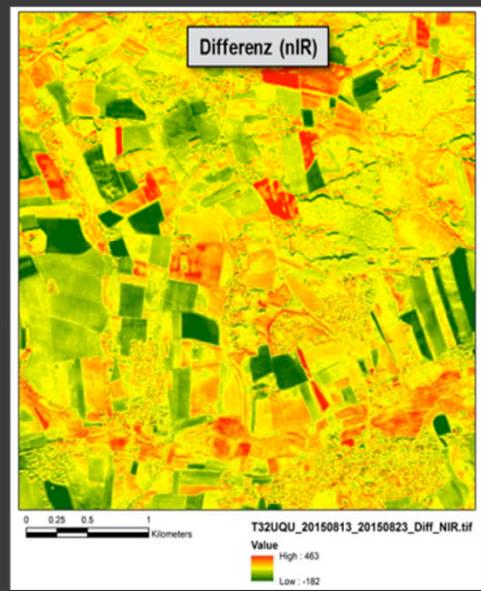
Change detection

DER "GAME CHANGER"

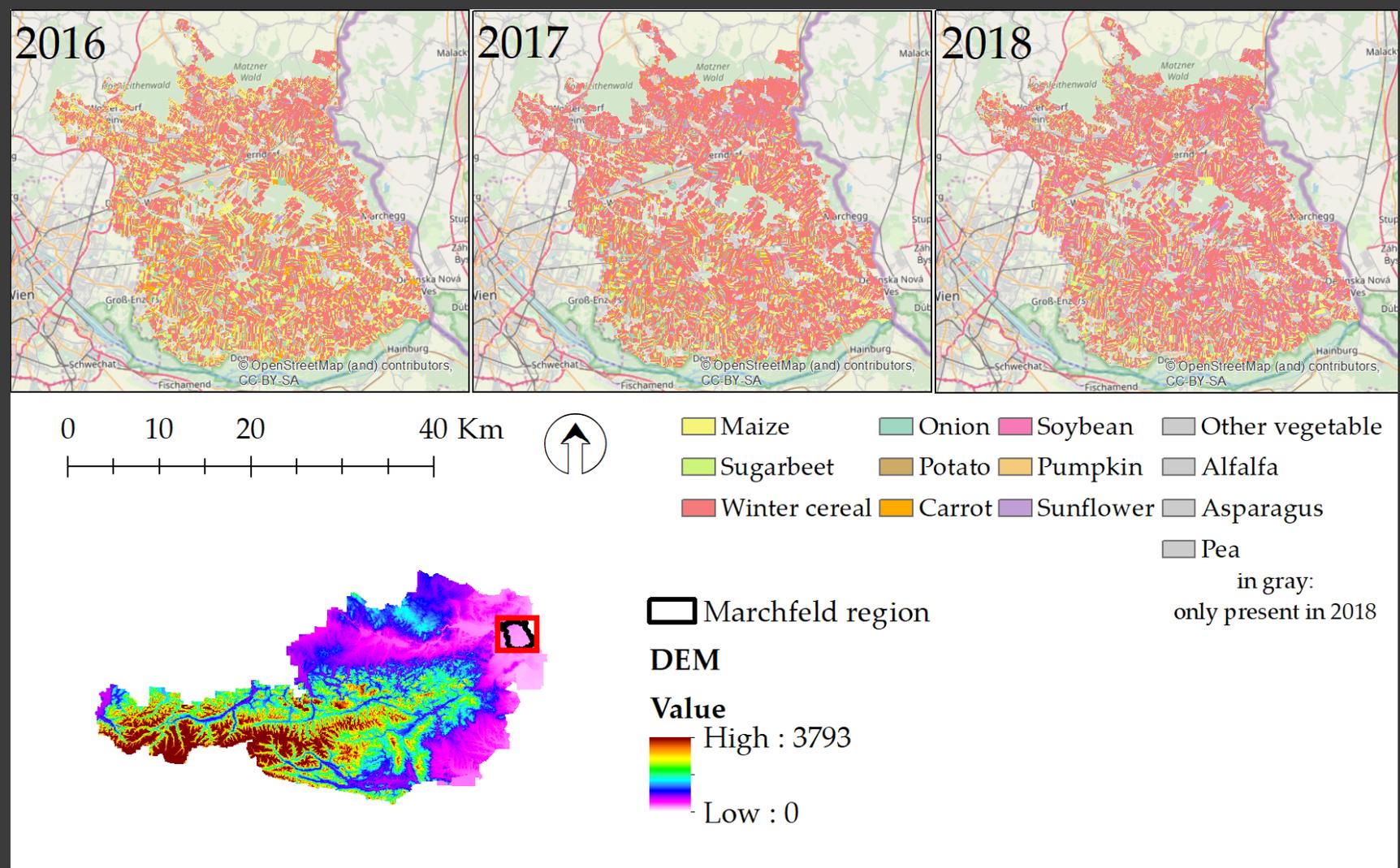
„Change detection“



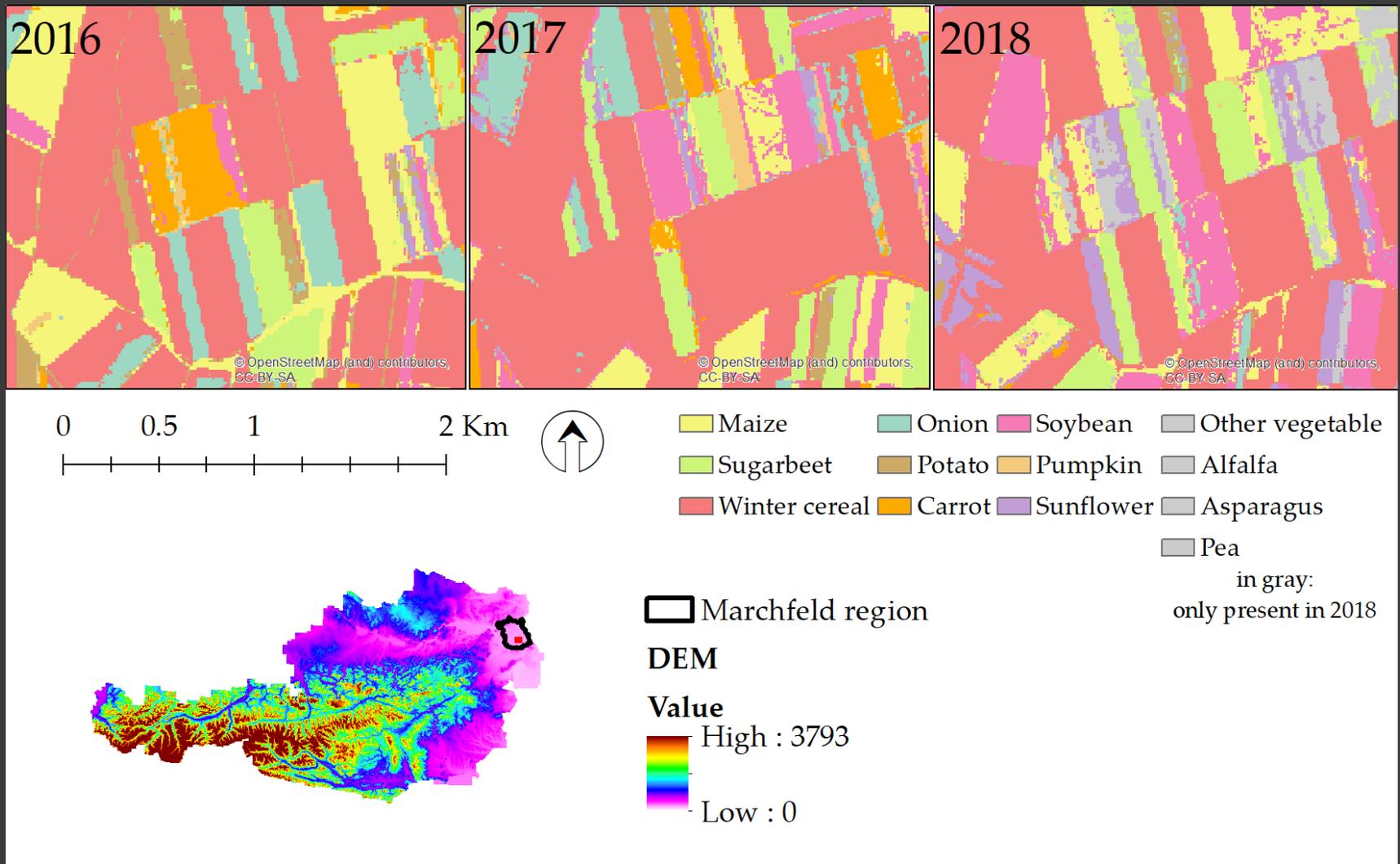
← --- 10 Tage --- →



REGIONALE ANALYSE



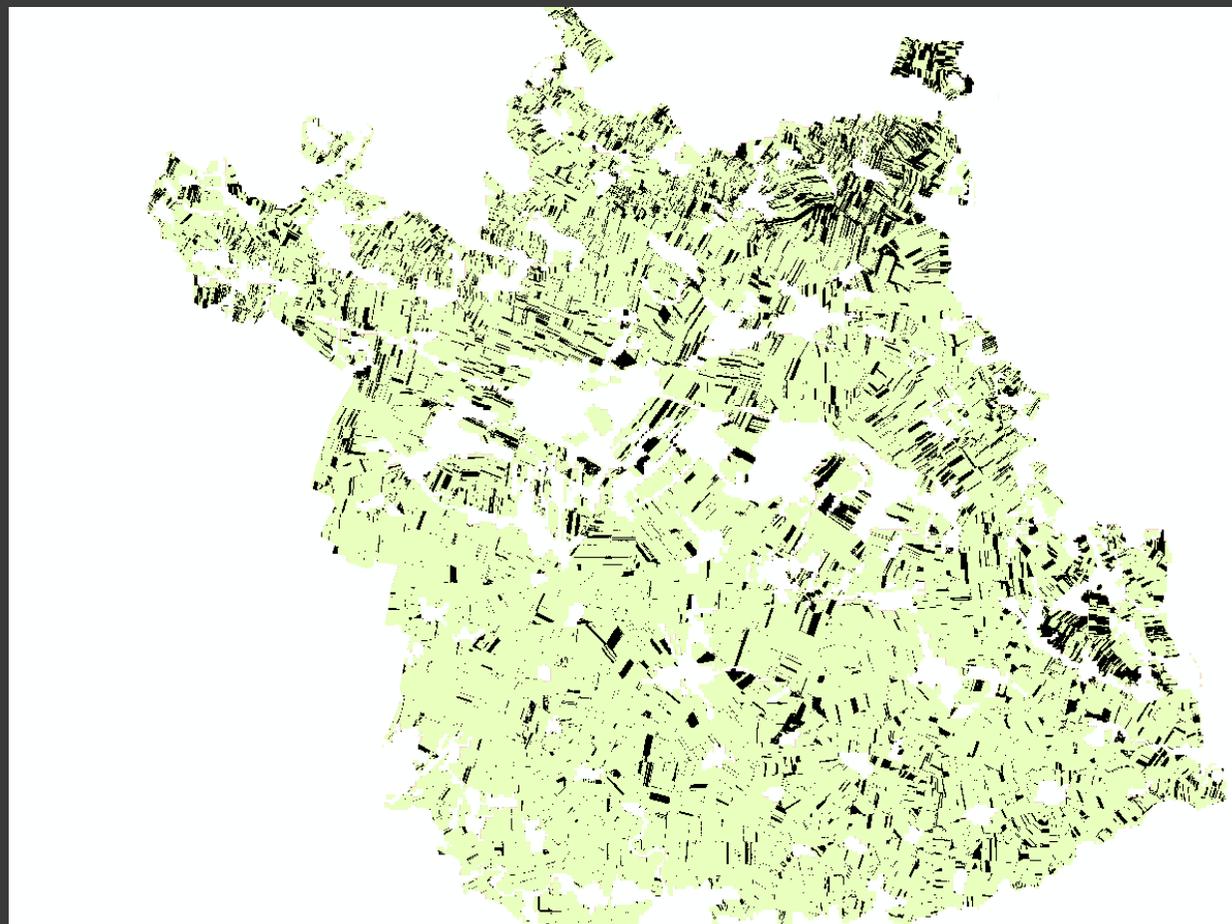
REGIONALE ANALYSE



*Crop type
classification*

Crop rotation

REGIONALE ANALYSE



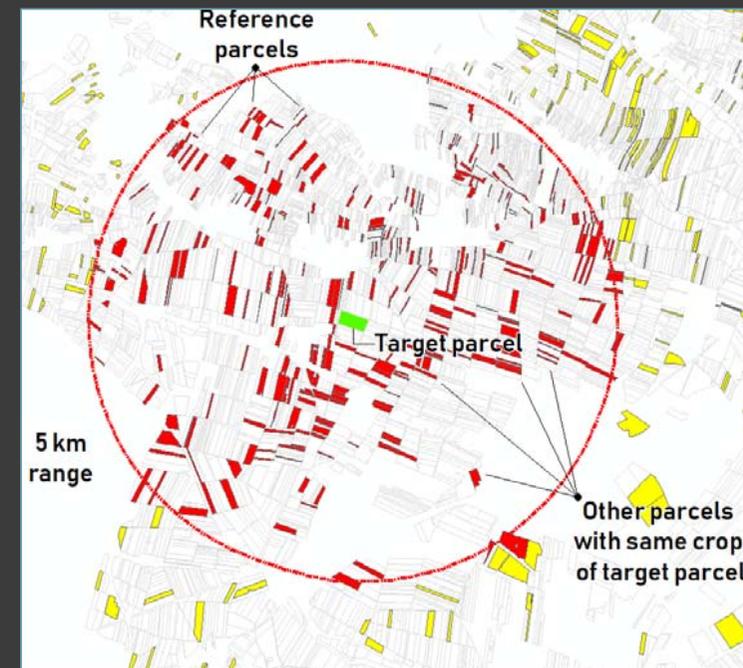
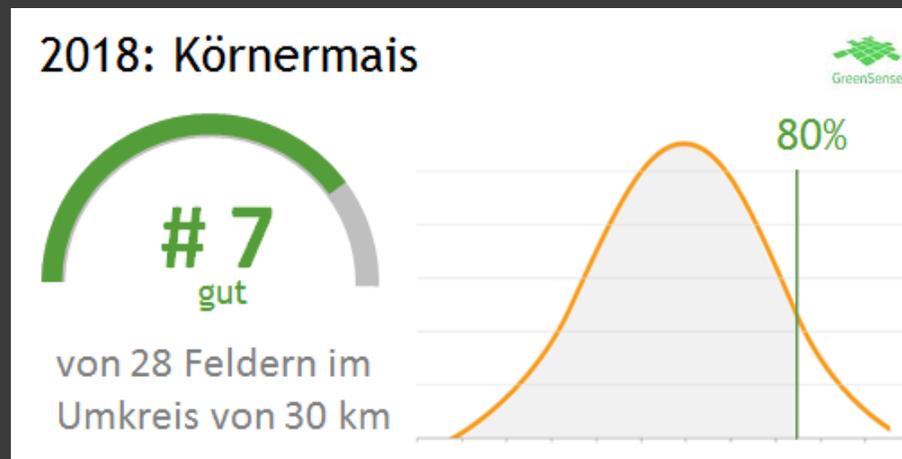
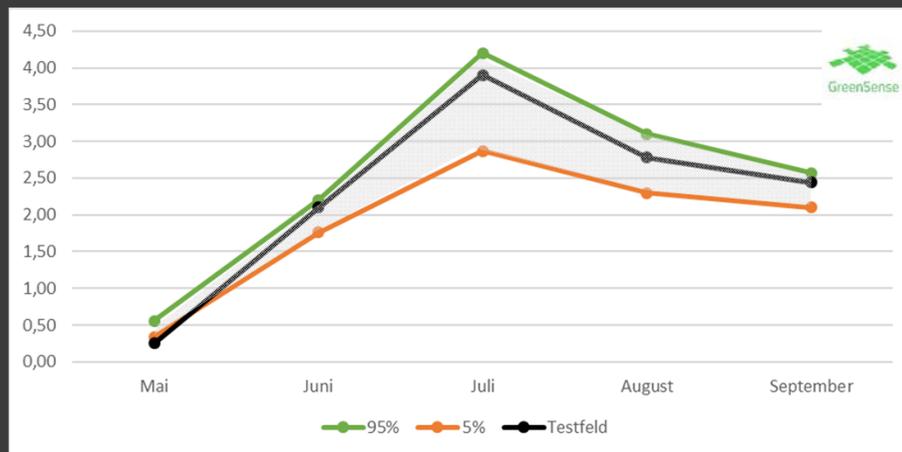
14 %
Mono-Kultur
(2016-2018)



Regional

Crop bench-
marking

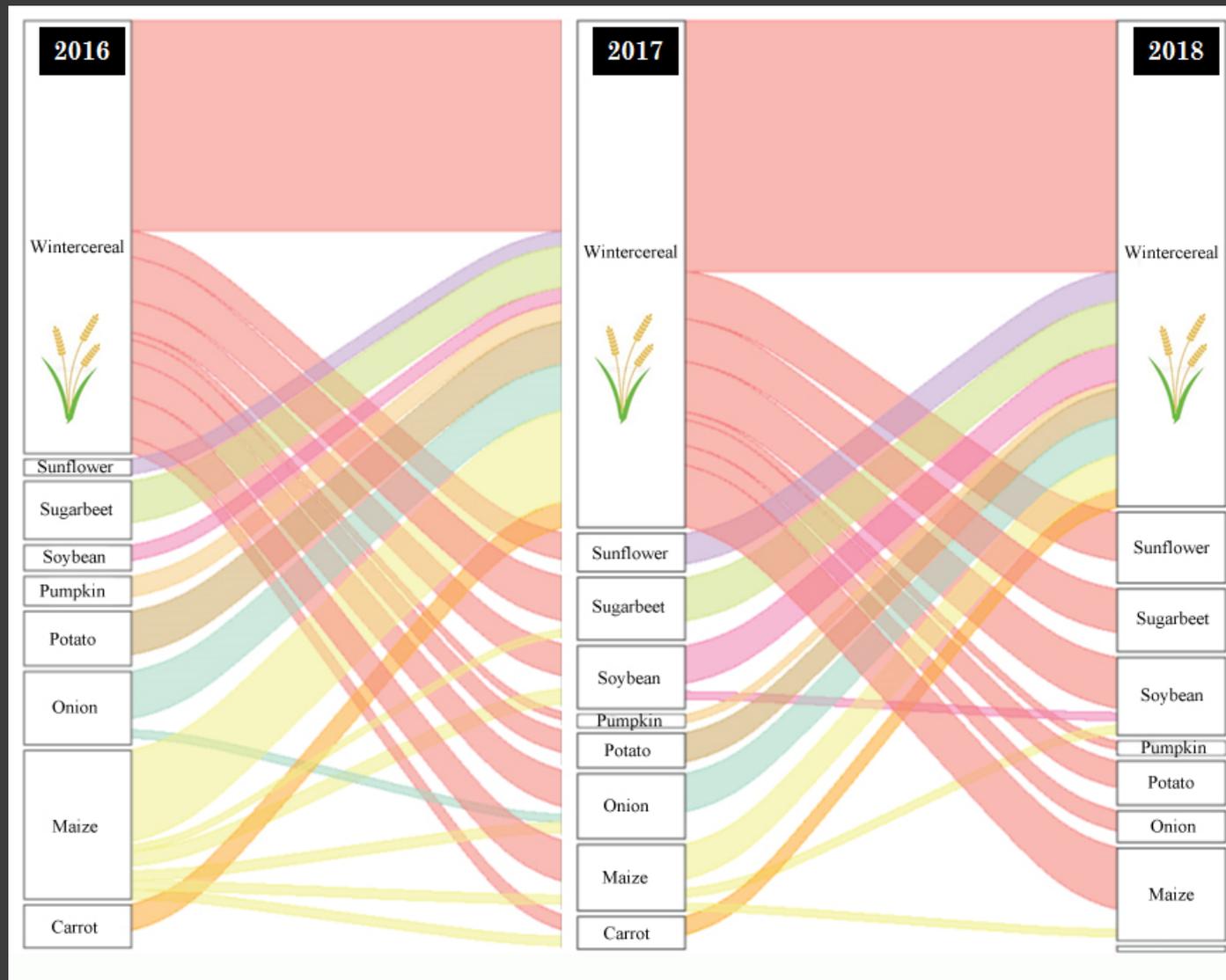
REGIONALE ANALYSE



*Crop type
classification*

Crop rotation

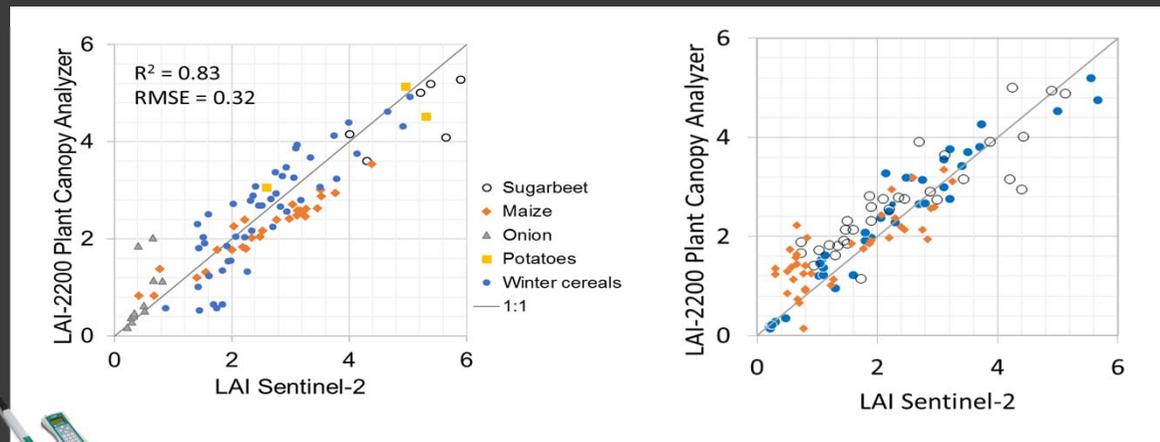
REGIONALE ANALYSE



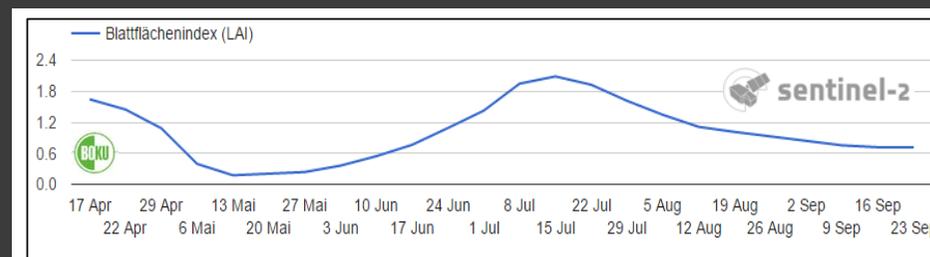
LAI
validation

Growth
potential &
N-uptake

FELDSPEZIFISCHE INFORMATION



Validation of PROSAIL-derived LAI



FELDSPEZIFISCHE INFORMATION



Beregnungsplan.at



eAMA
Feldimport



Meine Felder



Bewässerung

HAUSACKER



BILANZ KW 27



BEWÄSSERUNGSBEDARF AKTUELL: 18 MM

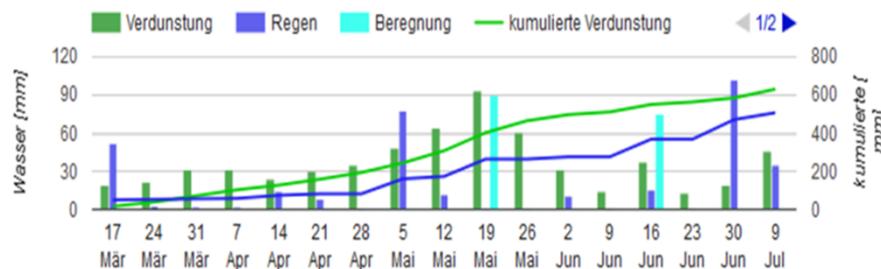
PROGNOSE KW 28



25 MM

5 MM

WASSERBILANZ SEIT AUSSAAT



SEIT AUSSAAT



125 mm



55 mm



45 mm

Hausacker

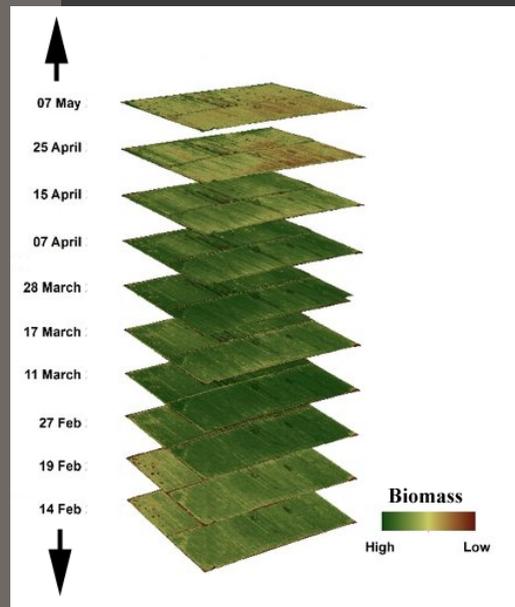
RWA - Raiffeisen Ware Austria Aktiengesellschaft | A-1100 Wien, Wienerbergstraße 3 | Tel.: +43 1 60515 0



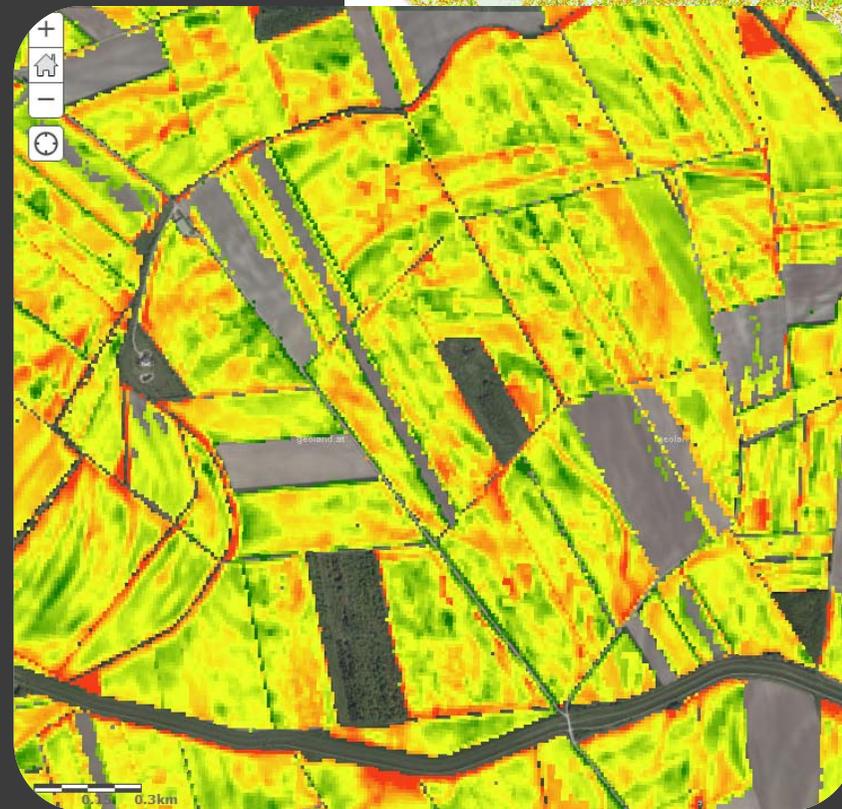
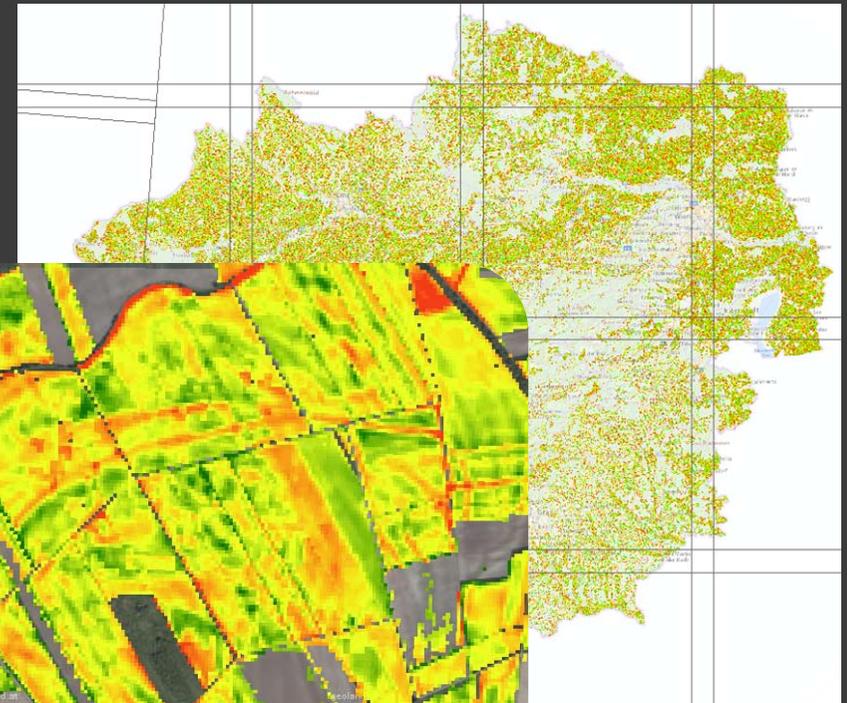
Local

Yield
potential

FELDSPEZIFISCHE INFORMATION



Historische
Ertragskarte

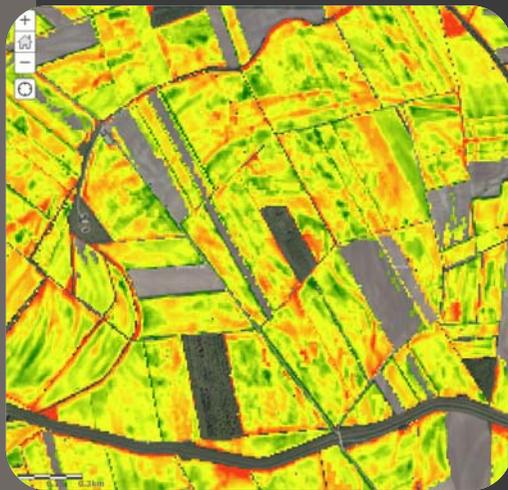


Yield potential

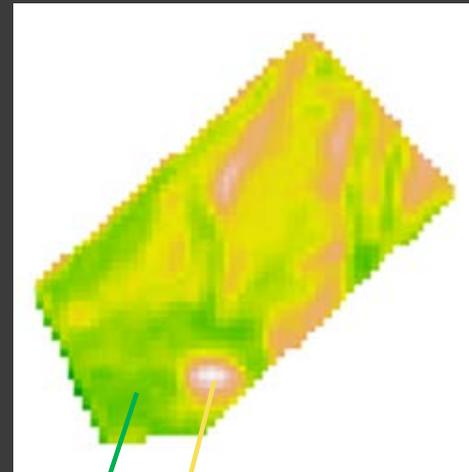
Pre-season N-application

FELDSPEZIFISCHE INFORMATION

Historische Ertragskarte



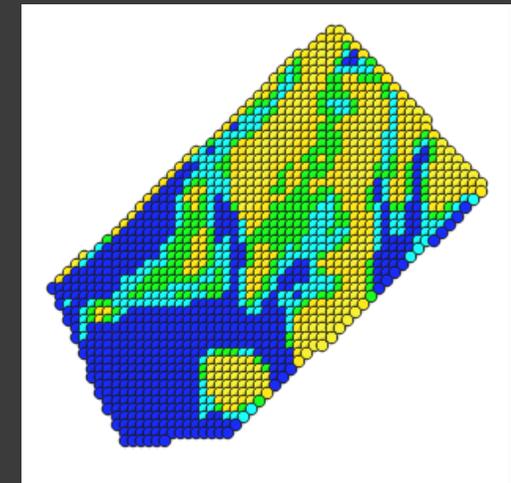
Historische Ertragskarte



Niedrig

Hoch

1. Düngung



Nährstoffempfehlung

43 HERRENFELD

Winterraps	7,7753 ha
N Obergrenze CC/OPUL	140,00 kg/ha
N Empfehlung SCD7:	143,00 kg/ha
P205 Empfehlung SCD7 (li):	83,75 kg/ha
K205 Empfehlung SCD7 (li):	200,00 kg/ha
N bereits gedüngt:	0,00 kg/ha
P205 bereits gedüngt:	0,00 kg/ha
K205 bereits gedüngt:	0,00 kg/ha
N noch zu düngen	140,00 kg/ha
N Empfehlung gelbe Zone (0,87 ha)	89,00 kg/ha
N Empfehlung grüne Zone (3,96 ha)	124,00 kg/ha
N Empfehlung hellblaue Zone (1,75 ha)	159,00 kg/ha
N Empfehlung dunkelblaue Zone (1,20 ha)	194,00 kg/ha
Kontrolle Ø N Empfehlung :	138,74 kg/ha



Local

Maps for N-application

FELDSPEZIFISCHE INFORMATION



Historische Daten
für 1. Düngung

Echtzeit-Daten
für 2. Düngung

Echtzeit-Daten
für 3. Düngung



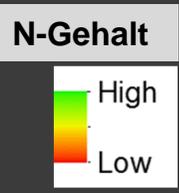
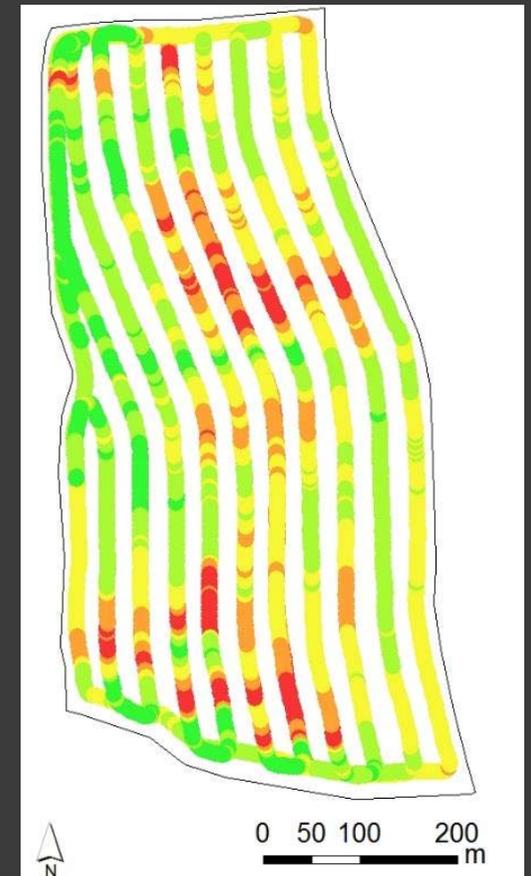
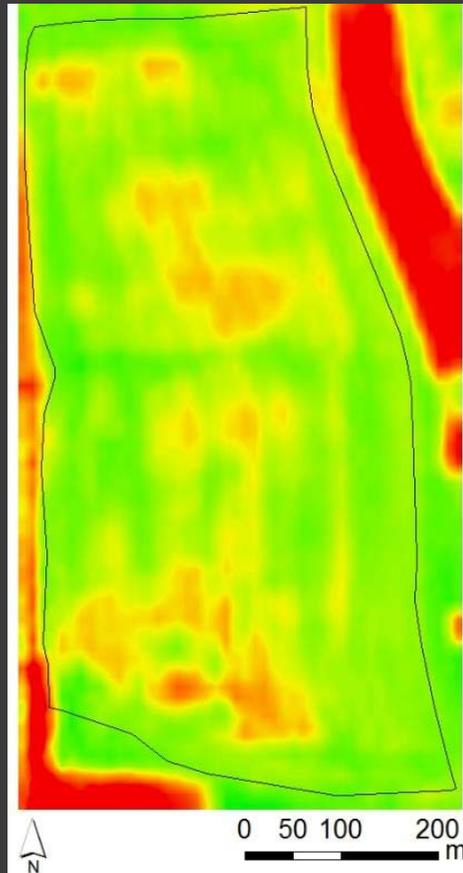
Augmented Reality !



Local

Yield
potential
YARA
N-sensor

FELDSPEZIFISCHE INFORMATION



... SCHLUSSFOLGERUNGEN...

Fertige & validierte (Web)Anwendungen existieren
... Warum bleiben Nutzer skeptisch ?

Räumliche und zeitliche Auflösung durch Copernicus
weitgehend gelöst ... Wer trägt die Kosten ?

Informationsfluss in 2 Richtungen wäre vorteilhaft ... Wie lösen wir Datenschutzproblematik ?

<https://nitrogen.greensense.at>

user: demo – pw: demo



Vielen Dank !

CONTACT

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<https://nitrogen.greensense.at>

user: demo – pw: demo

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FATIMA (H2020)
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HQS2 (FFG)

