



Potentiale der Digitalisierung für den Obst- und Beerenbau

20240220 - FutureLab



La numérisation dans l'agriculture

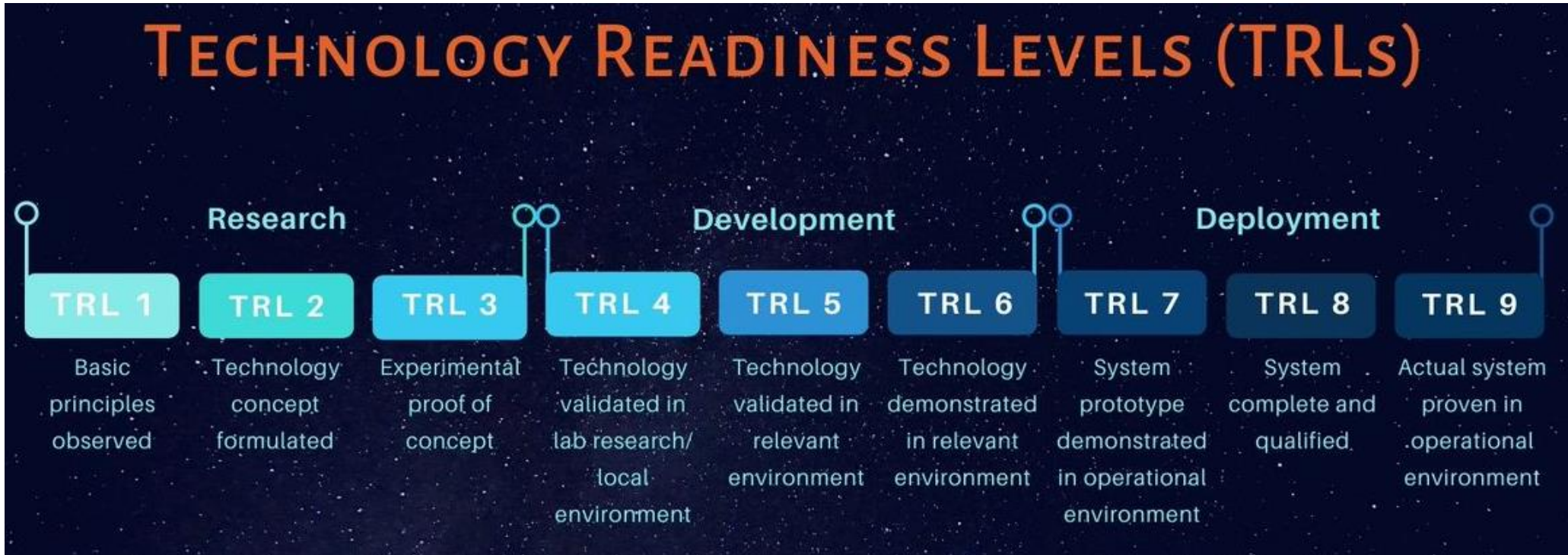
Situation en 

Entreprises avec numérisation	18083	38.83%
Entreprises sans numérisation	28491	61.17%
Degré de numérisation - produit intelligent et connecté	1977	4.24%
Degré de numérisation - système en réseau avec plusieurs produits	833	1.79%
La numérisation sur le terrain - pour l'irrigation	458	0.98%
Risques de la numérisation - Peur du contact/pas d'intérêt pour les technologies	8949	19.21%



La numérisation dans l'agriculture

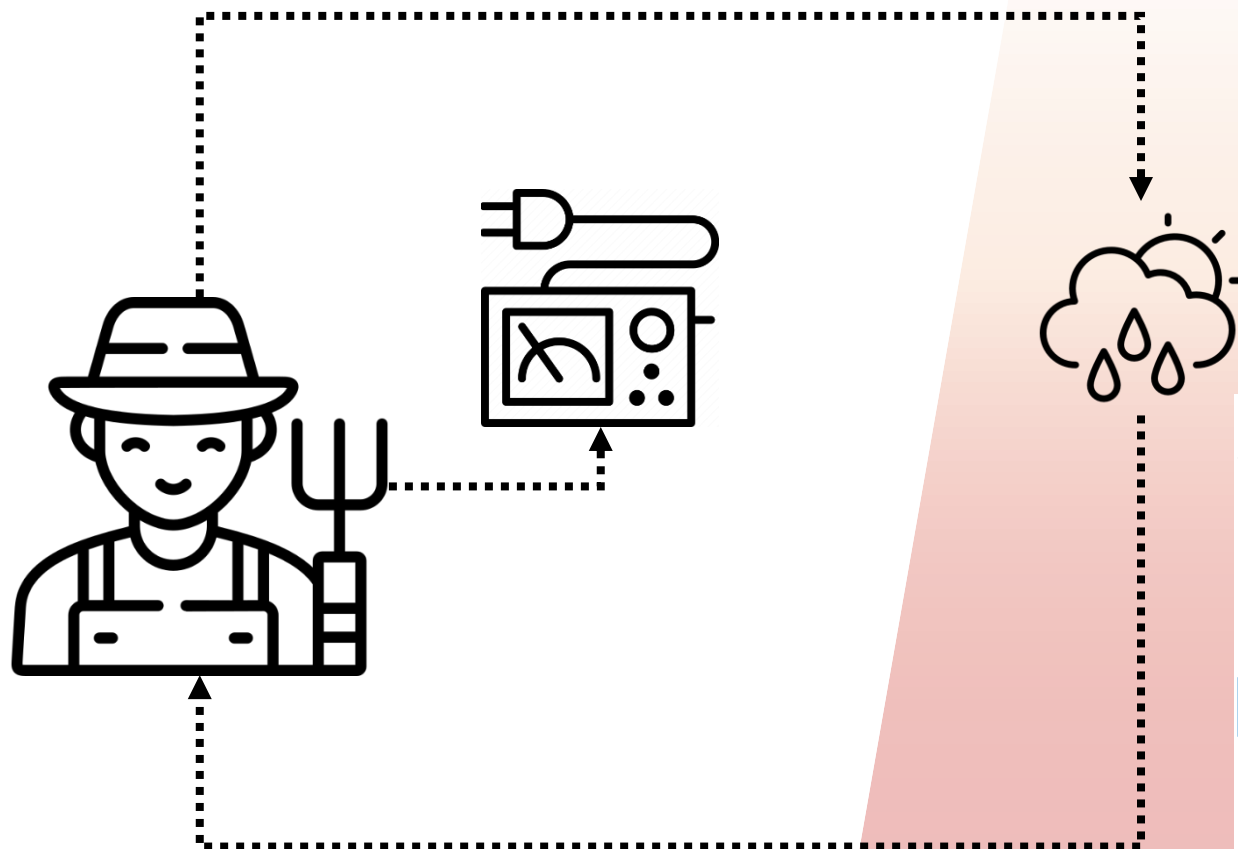
Situation en 



Camilo Chiang



Regarder vers l'avenir



The screenshot shows the Agrometeo website interface. At the top, there is a header with the Swiss flag and the text 'Schweizerische Eidgenossenschaft', 'Confédération suisse', 'Confederazione Svizzera', and 'Confederaziun svizra'. Below this is the 'Agroscope' logo. The main content area features a large image of a vineyard in Zizers, a map of the region, and a weather forecast for 07.02.2024. A menu is visible on the right side of the page.

Menu

AgroMaps	Werkzeuge	Modelle	Beobachtungen
Meteorologie	Angepasste Dosierung	Apfelschorf	Phänologie
Weinbau	Pflanzenschutzmittel	Feuerbrand	Insect-Monitoring
Obstbau	Bewässerung	Schädlinge SOPRA	Drosophila suzukii
Ackerbau	Tropfbewässerung		Apfelschorf Ascospor...
Hilfe und Ressourcen			Kantonale Mitteilungen



TLR 1

TLR 2

TLR 3

TLR 4

TRL 5

TRL 6

TRL 7

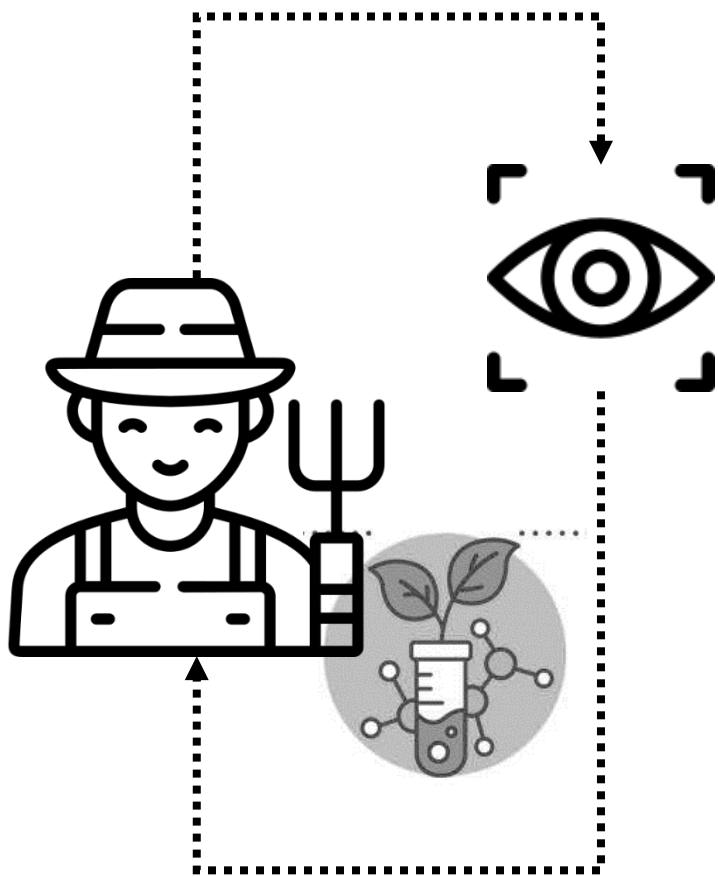
TLR 8

TLR 9

Camilo Chiang



Vue sur le terrain : insectes



8% in der



The screenshot shows the AGROLINE website interface. The top navigation bar includes 'AGROLINE', 'Service', 'Bioprotect', and 'Innovationen'. Below this, there are links for 'Profi-Shop', 'Privatkunden-Shop', and 'Online-Ratgeber'. The main content area displays a message: 'Sie befinden sich im Shop für gewerbliche Anwender*innen. Produkte für den privaten Gebrauch sind hier zu finden.' Below this, a dropdown menu for 'Produktkategorien' is open, showing 'Monitoring' selected. The product 'TrapView Obst & Gemüse' is featured, with a description: 'Die digitale Falle beinhaltet ein Pheromon, d Kamera, welche alle 24 Stunden ein Foto der übermittelt.' Below the description, there are three small images showing the product in use in a field. A link for 'Produktbeschreibung' is also visible.



TLR 1

TLR 2

TLR 3

TLR 4

TRL 5

TRL 6

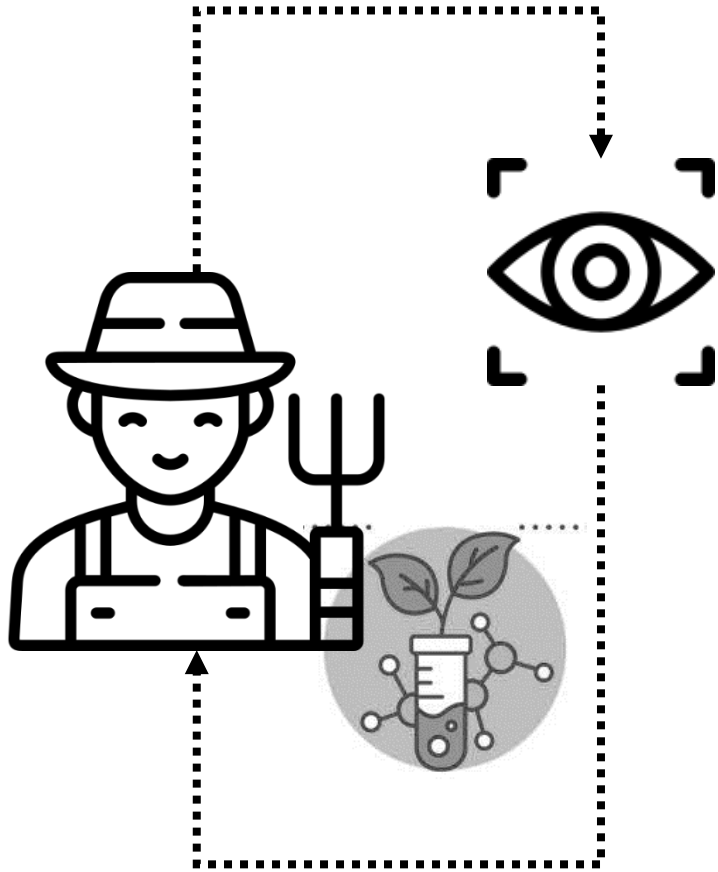
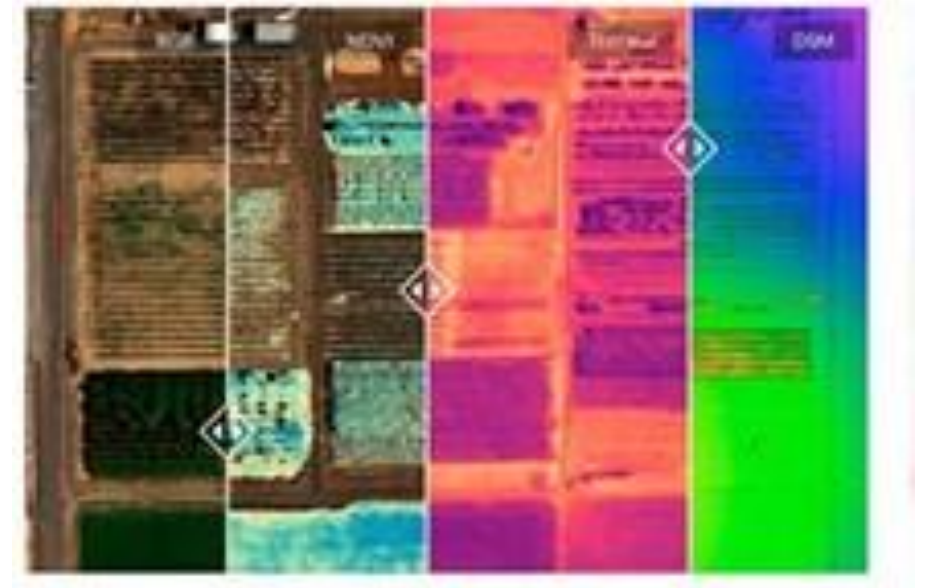
TRL 7

TLR 8

TLR 9



Vue sur le terrain



2% in der



TLR 1

TLR 2

TLR 3

TLR 4

TLR 5

TLR 6

TLR 7

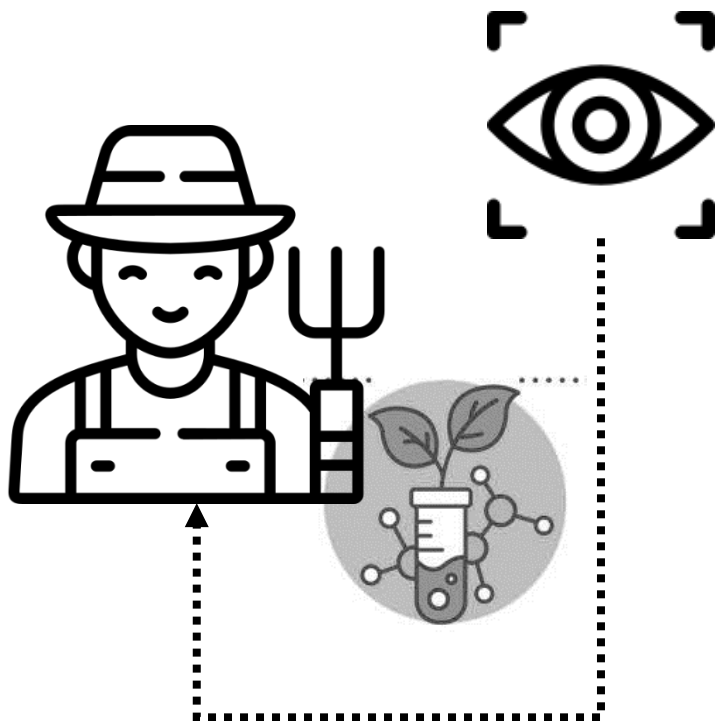
TLR 8

TLR 9

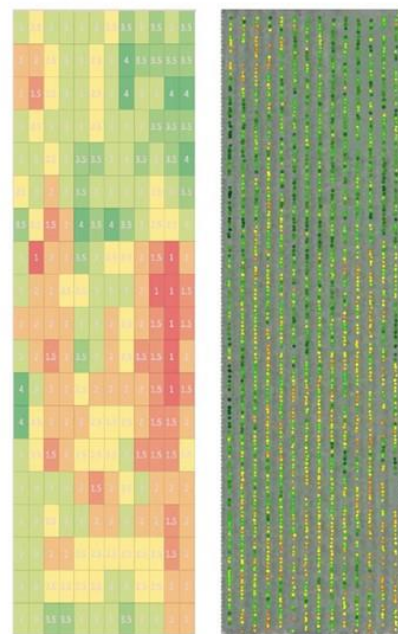




Vue du champ : rendement



2. YIELD



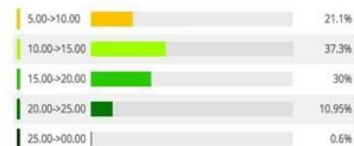
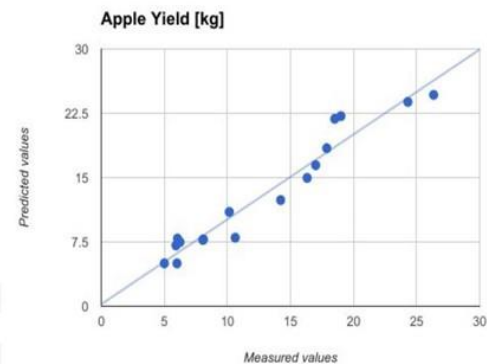
Tree volume (based on field observation)

- 1. Low
- 2. Medium
- 3. High
- 4. Very high

Description

The apple yield was calculated in kg of apples. It was calculated based on the apple count and the average apple weight (kg).

Model accuracy= 92%



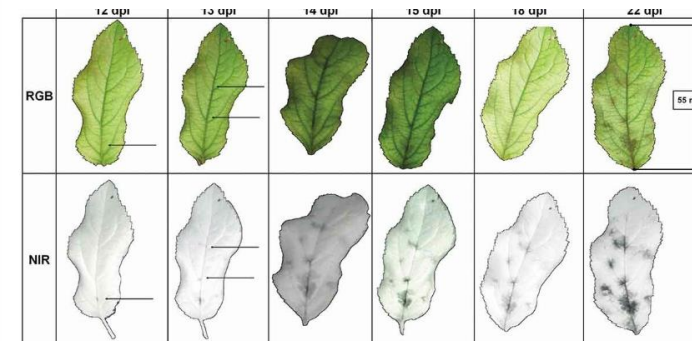
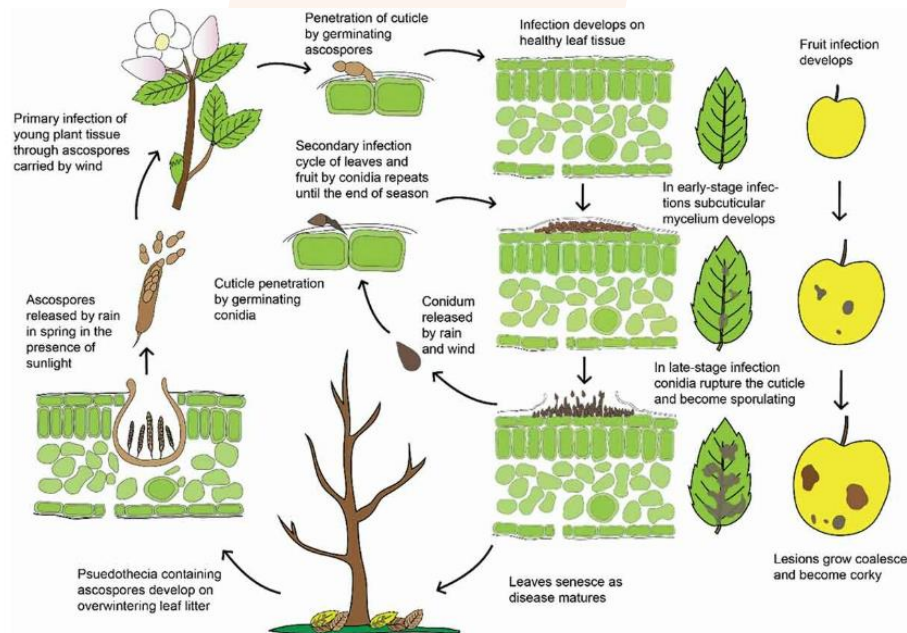
Arbeit von Philippe Money - 2017



TLR 1	TLR 2	TLR 3	TLR 4	TRL 5	TRL 6	TRL 7	TLR 8	TLR 9
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Vue sur le terrain : Maladies



Bilder von Bleasdale et al., 2022

TLR 1

TLR 2

TLR 3

TLR 4

TRL 5

TRL 6

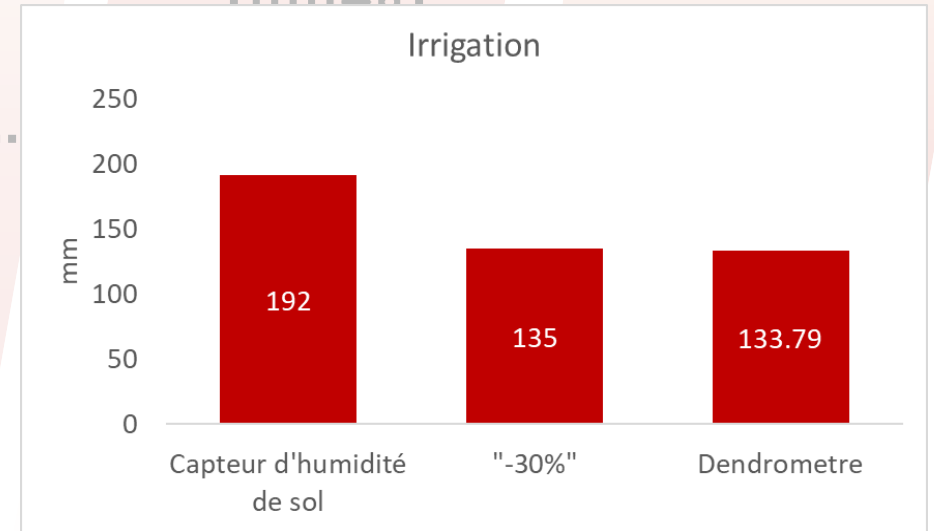
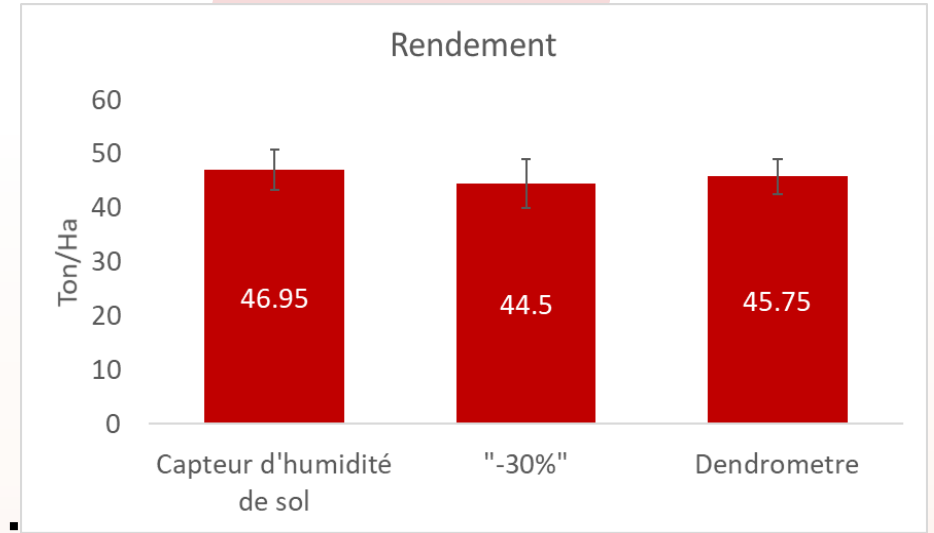
TRL 7

TLR 8

TLR 9



Vue sur les plantes



1% in der



TLR 1

TLR 2

TLR 3

TLR 4

TLR 5

TLR 6

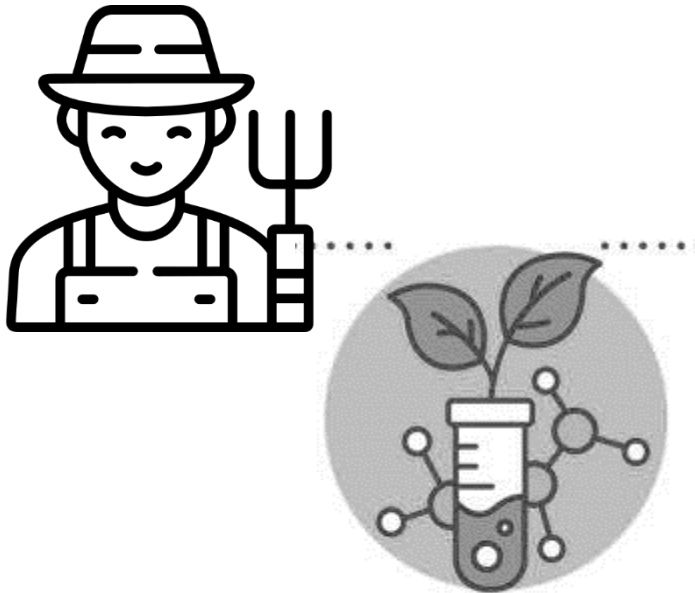
TLR 7

TLR 8

TLR 9



Vue sur les plantes : Robot et récolte



[Behind the scenes of Dyson farming with James Dyson](#)

1% in der



TLR 1

TLR 2

TLR 3

TLR 4

TLR 5

TLR 6

TLR 7

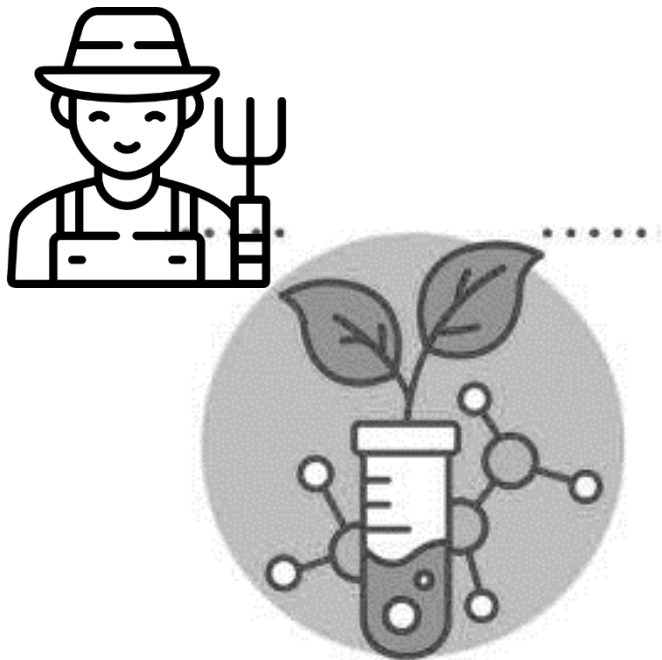
TLR 8

TLR 9

Camilo Chiang



Vue sur les plantes : reconstruction 3D



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Activities Terminal
ubuntu@ubuntu: ~/Agroscope/Momentary/videos
/home/ubuntu/Agroscope/ASPEN/Software/ROS/src/aspn/aspn/launch/aspn_ap...
ubuntu@ubuntu:~/Agroscope/Momentary/videos$ rosbag play *.bag
[ INFO] [1669726255.874681464]: Opening 2022-07-27-09-35-30_0.bag
Waiting 0.2 seconds after advertising topics... done.
Hit space to toggle paused, or 's' to step.
[RUNNING] Bag Time: 1658907330.696456 Duration: 0.308494 / 59.887917

```

30 Äpfel pro Minute!

1% in der



TLR 1	TLR 2	TLR 3	TLR 4	TRL 5	TRL 6	TRL 7	TLR 8	TLR 9
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Camilo Chiang



Que voulons-nous/devrions-nous atteindre ?



- Nous devons commencer à relier les points entre eux
- Nous devons éviter les doublons
- La Suisse a besoin de robots plus petits que les autres pays (comme pour les autres outils agricoles).





Merci de votre attention

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Agroscope good food, healthy environment

www.agroscope.admin.ch