



HAIP

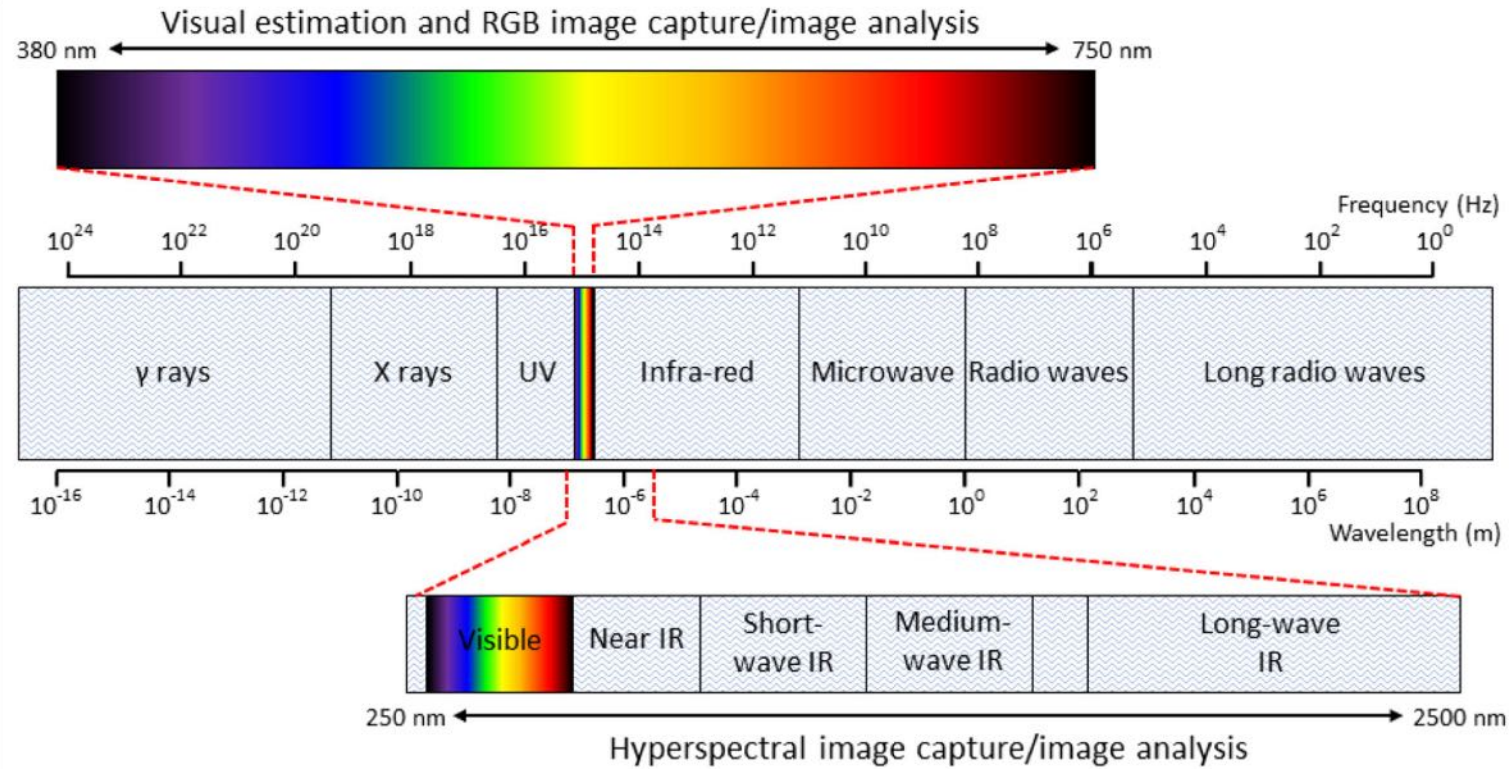
Hyperspectral Agricultural Imaging Platform

Look beyond the visible

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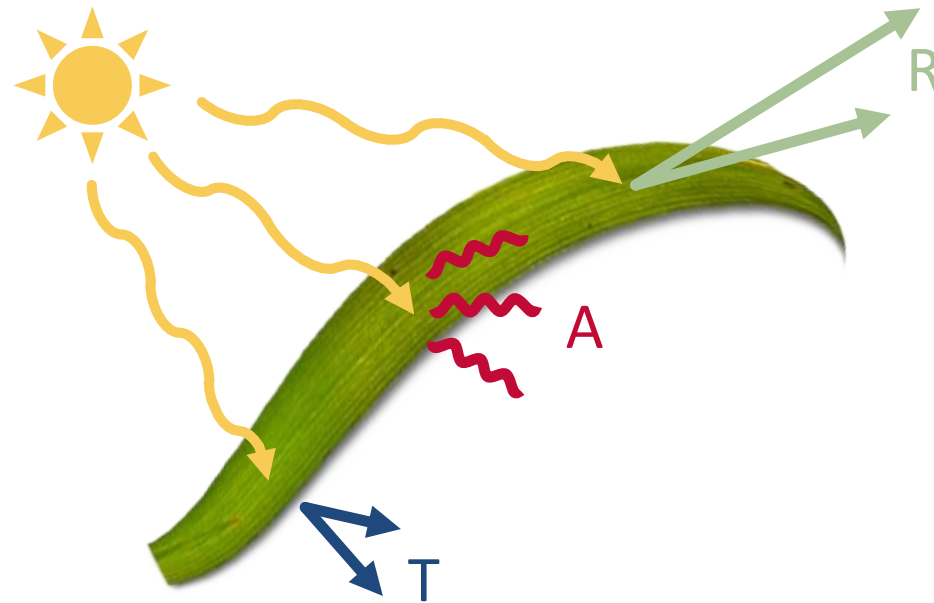
Electromagnetic radiation

Basics - Excursus



Electromagnetic radiation

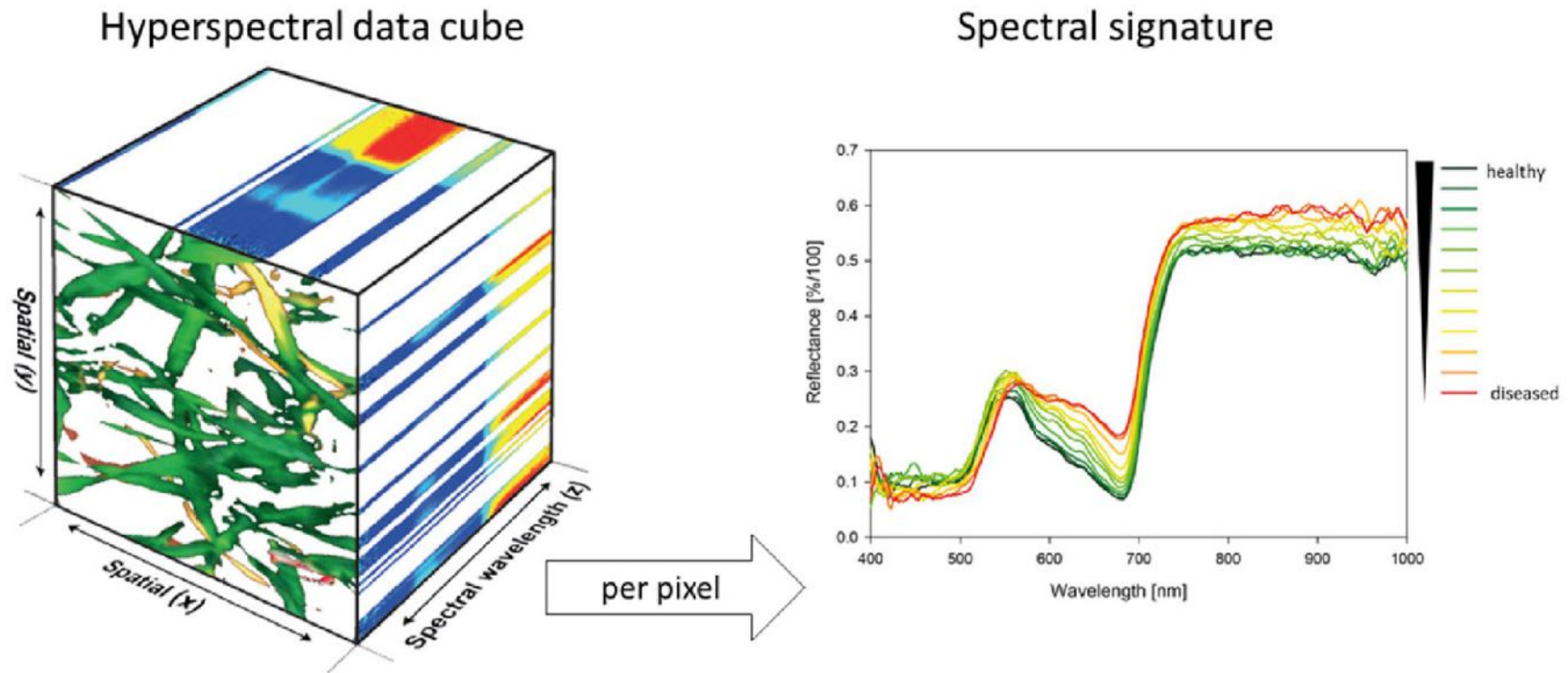
Basics - Excursus



$$\text{Radiant flux} = \text{Absorption (A)} + \text{Transmission (T)} + \text{Reflexion (R)} = 1$$

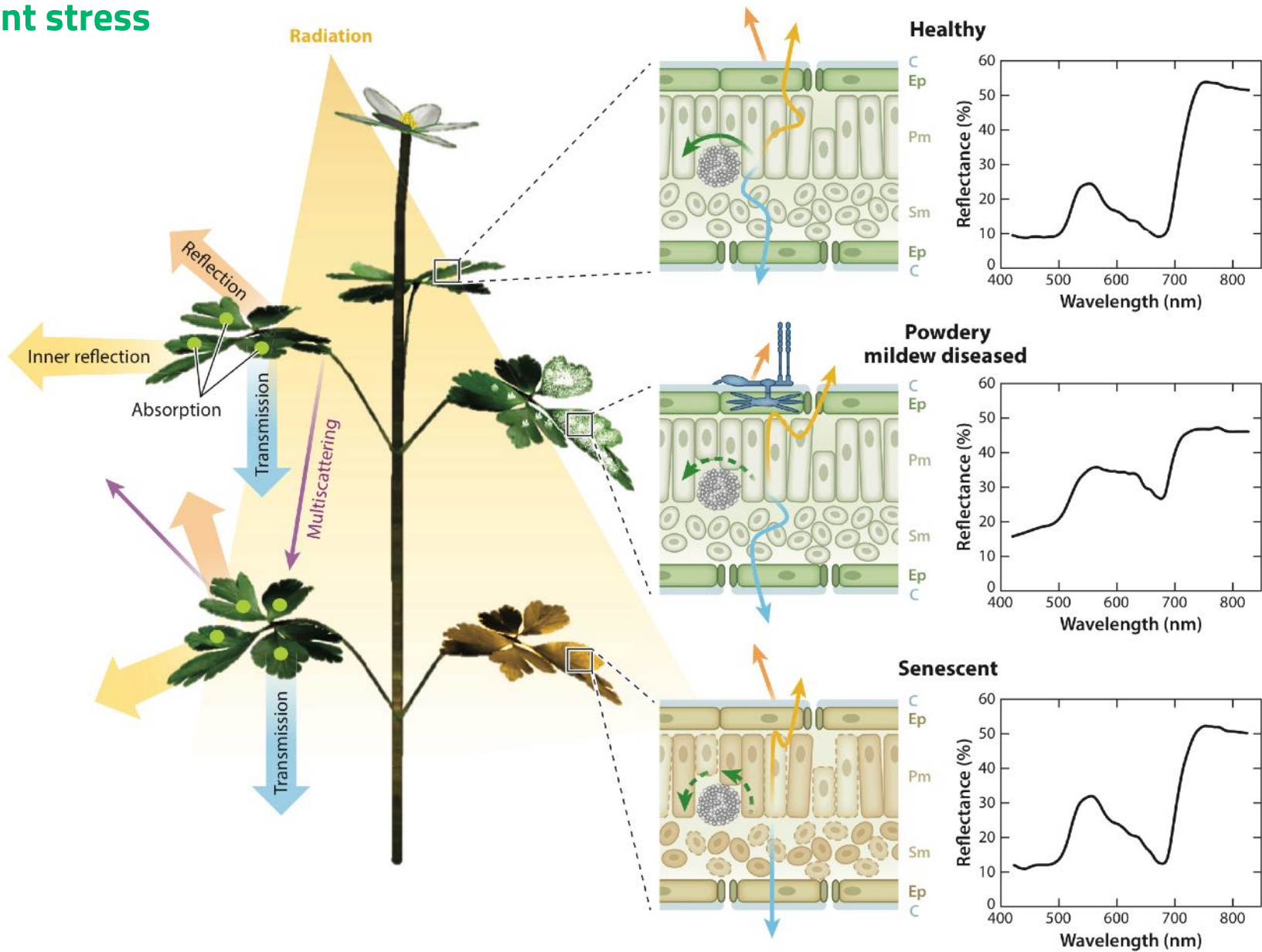
Reflection of vegetation

Basics



Detection of plant stress

HSI basics



Userfriendly HSI-Technology Products

HAIP *BlackBullet*



Smart VNIR Sensor

HAIP *BlackBox*



Controlled environment

HAIP *BlackBird*



UAV-based survey

HAIP *BlackMobile*



Mobile applications

HAIP *BlackIndustry*



Industrial in-line

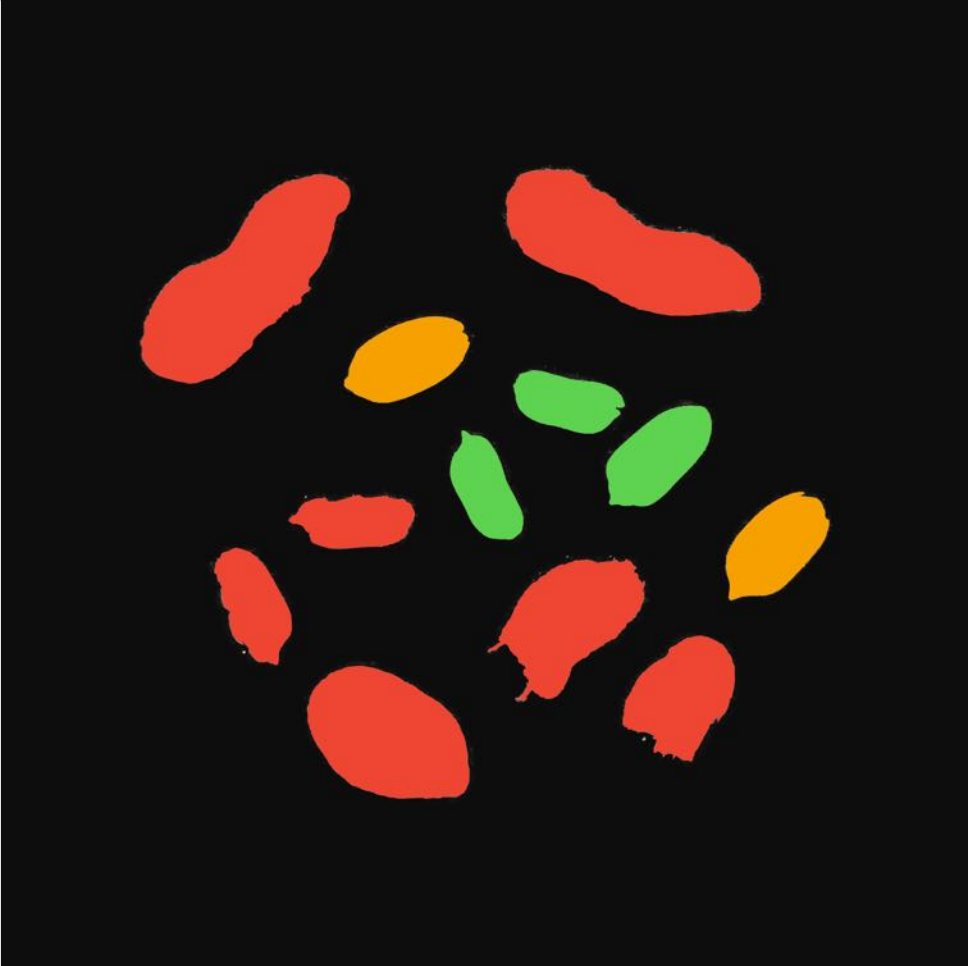
Food Quality Inspection

Use-Case



Food Quality Inspection

Use-Case



Food Quality Inspection

Use-Case

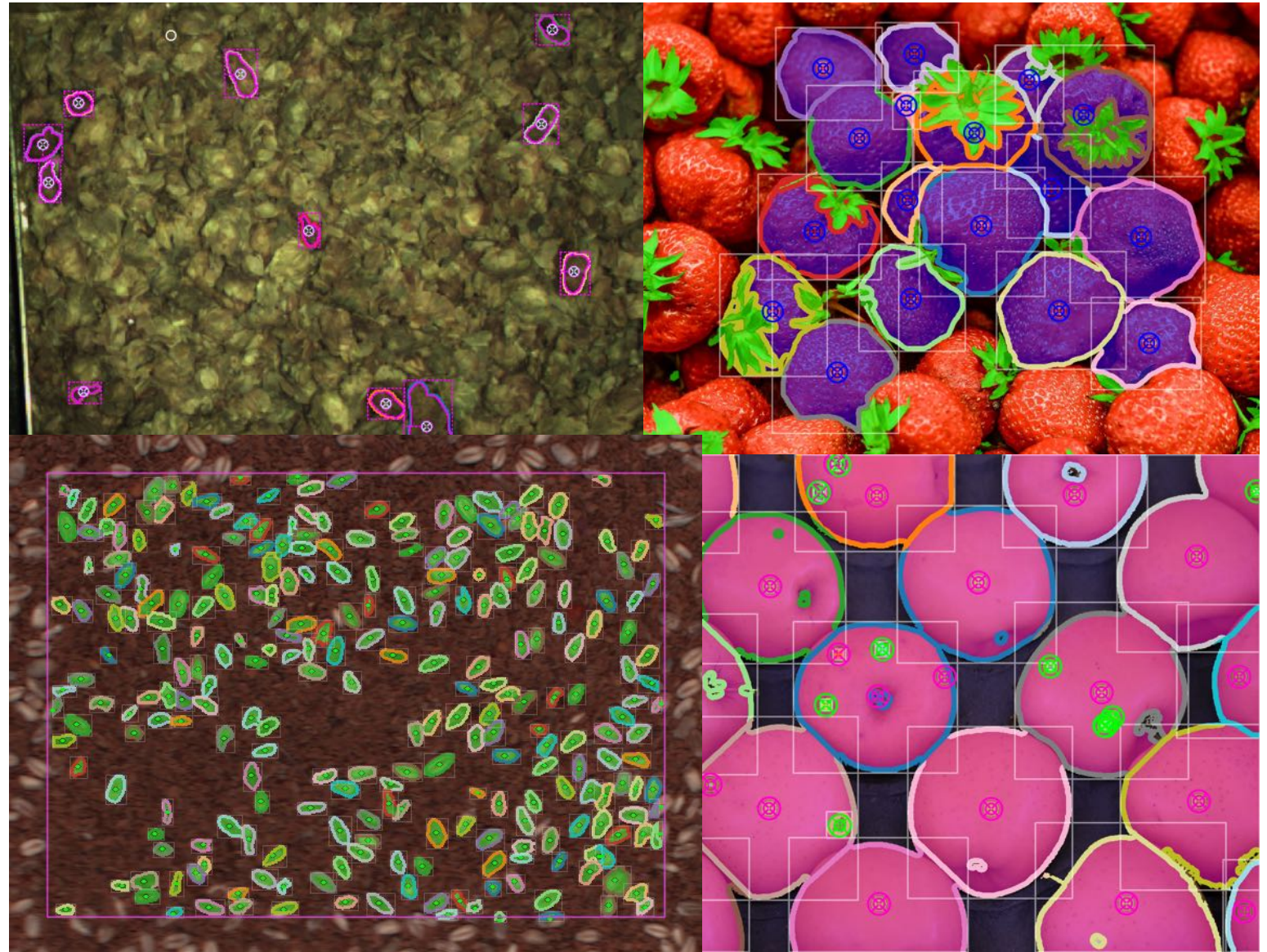


HAIP BlackBox Solution

HAIP *BlackBox*



Controlled environment



HAIP BlackMobile Solution



Features

- Smart mobile hyperspectral camera
- Fast & easy to use
- Broadband LED lighting unit integrated
- VNIR (500-1000 nm) HSI & 4K RGB camera
- High Signal-to-noise ratio in NIR range
- 7" touchscreen display
- Internal GPU for processing (NVIDIA Jetson)

Broad expertise



Michel Reifenrath

HSI expert



Johannes Busch

Machine Learning



Milan Rädicker

Electrical engineering



Tobias Kreklow

Remote Sensing & GIS



Physische Geographie
und Landschaftsökologie





Tobias Kreklow

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Look beyond the visible