TURNING INFORMATION INTO PROFITS

Pessl Instruments' Artificial Intelligence for Pest Control

*Grow your crops in the optimal and
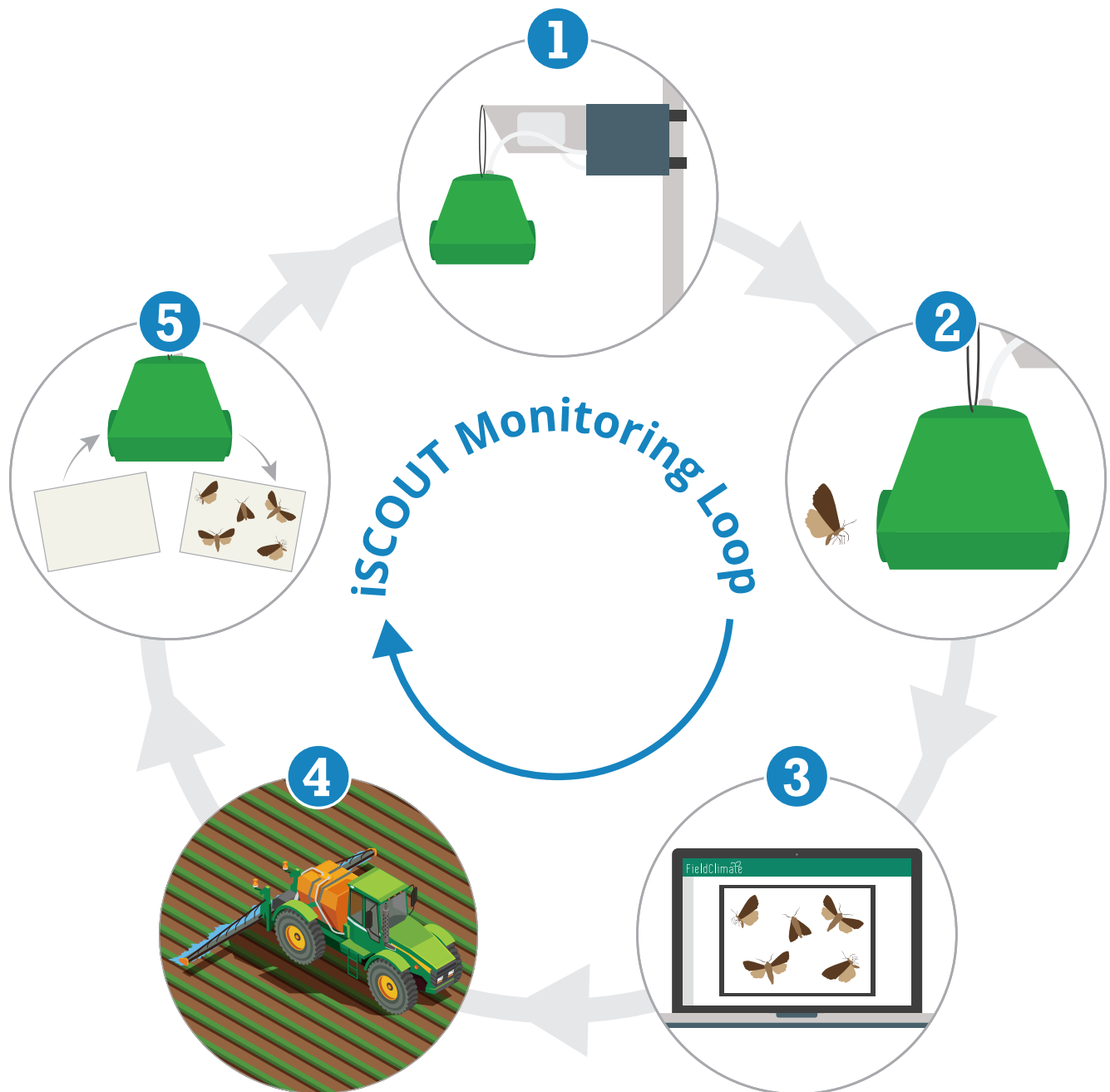most healthy way with the help of technology*

Agriculture and farming are no strangers to the AI revolution. Precision farming equipment, backed with artificial intelligence goes down in the dirt and makes abundant harvests possible in all corners of the world. It helps farmers make more profit and pollute less. It helps us understand what is happening in the field in more detail.

1. **iSCOUT Installation:** iSCOUT insect trap catches pest insects in the field
2. **Insects fly into the trap:** Camera takes high-resolution pictures of the sticky plate
3. **FieldClimate analysis:** Pictures are analyzed & the results are seen in FieldClimate platform
4. **Activities based on data:** Based on the results (population level of the pest insect), the farmer decides about plant protection activities
5. **Cleaning of iSCOUT:** Farmer goes into the field (at the same time when they do plant protection measurement) & cleans the iSCOUT (change the glueboard and lure/pheromone).

iSCOUT Monitoring Loop

THE AI BEHIND

• Pictures of iSCOUTS are processed and analyzed by deep learning system, that marks recognized insects
• Every user sees those markings and has the possibility to adjust the common name of the insect or correct the labels.
• Data from stations is used for system improvements on regular basis - more stations in the field leads to more data which leads to higher precision

Why Pessl Instruments?

Interdisciplinary collaborations of experts came up with these features implemented in the system and are constantly improving and updating the system in-house:

- **Accurate pests data** - Data analysts cooperate with entomologists, who have extensive knowledge in pest biology and identification.
- **Population dynamic** - Consecutive pictures are used for remote monitoring of population dynamic (pick) in the field.
- **Preserving Biodiversity** - We target every bug, not only pests, which makes the device useful for labeling and monitoring biodiversity and not just used in pest control.
- **Extensive data** - High-speed system makes it possible to work with large volumes and robust data
- **Precise data** - High-resolution pictures are transferred and used for analysis, so even small insects with specific characteristics are identified
- **Durability and sustainability** - Longlasting equipment, which can be in the field for years and used for different pest insects.

iSCOUT® uses automatic recognition algorithm for recognizing pests.

MORE INFO: metos.at/iscout

Pessl INSTRUMENTS