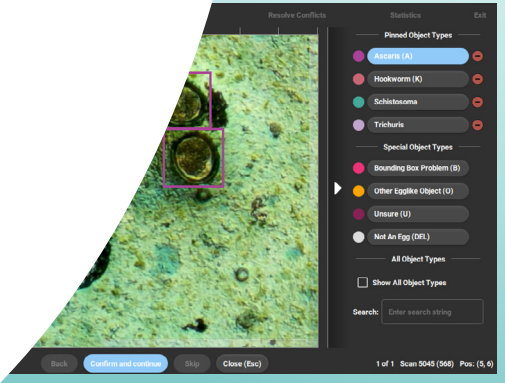
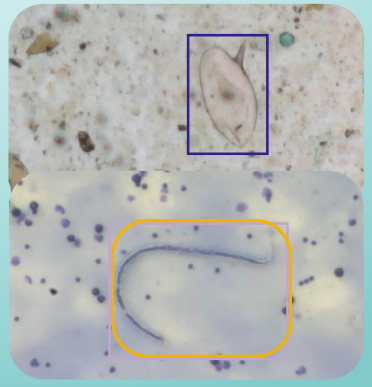
Automated AI-microscopy for everyone, everywhere.





Small footprint, big possibilities.

Current imaging systems are costly, bulky, and often have complex workflows. They require significant investment, ongoing maintenance, and specialised expertise to operate and analyse data. Not anymore.

[redacted] imaging platform represents a major leap forward in AI-powered slide imaging, delivering high performance at a fraction of the cost. By leveraging locally deployed AI models, our whole slide imaging solution provides fast and accurate results without the variability typically associated with manual microscopy.

In addition to its performance, our tools, RAVEN and ODEN, offer exceptional flexibility, empowering users to explore without limits, even in low-infrastructure settings.

Accurate: highly accurate machine-learning algorithms

Accessible: Designed to be lightweight, energy agnostic and durable, our imager is prepared to go anywhere you can

Affordable: Cost-effective and efficient for research settings of any scale

[redacted] digital pathology platform

AI-enabled slide reading and analysis

No-code AI-model pipeline

Raven

- Automated slide readings
- Standard glass slides
- On-device AI-models
- Portable and easy to use

Oden

- Browse & enrich your image data
- Easily train AI-models for your workflow
- Enables remote collaboration
- Handles multiple image sources

Technical specifications

"Raven" Whole Slide Imager (WSI)

Weight:	4.8kg
Dimensions:	20 x 25 x 26cm
Storage:	1TB local
Optics:	NA 0.17, 1.2µm resolution limit
Digital Resolution:	1 px = 0.93µm
Scan Area:	75mm x 25mm
Focus:	Automatic 4mm fine, 30mm coarse Depth of focus: 10µm (Step-size 5µm)
Operating Conditions:	Atmospheric pressure 0.75 ~ 1.1 bar Relative Humidity: Up to 85% (non-condensing) Temperature Range: 5°C ~ 40°C
Scan and Analysis Speed:	Sample dependent; Typically 5-10 min with focus stacks and analysis
Maintenance:	No lubricants, dust filter, lens and slide cleaning required

For research use only. Not for individual diagnostics.Specifications subject to change.

Intelligent workflow

Raven

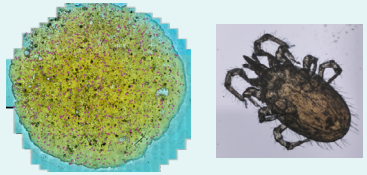
1.

QR, Boundary detection & slide assessment

Load a standard 25mm x 75mm glass slide or custom assay. RAVEN standardises and improves quality control of your workflows by automatically reading QR labels, identifying sample type, detecting scan areas, and assessing sample preparation quality.

2.

Scanning & Analysis



RAVEN automatically scans the entire sample with predefined or easily customised scan settings. On-device AI models analyse images in real-time.

Oden

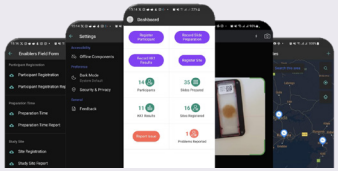
3.

Result verification

View images locally or remotely via a secure cloud connection, using the ODEN digital pathology suite. Images and AI generated results are immediately available for review and confirmation. ODEN allows users to easily annotate images, train and evaluate their own AI models with the click of a button.

4.

Aggregation & Visualisation



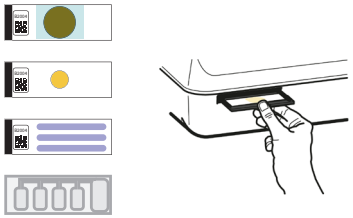
Export results summaries directly from ODEN, or integrate into external electronic notebooks using Enaiblers' APIs.

Automated slide readings

Desktop whole slide imager with integrated AI-processing.

1. Standard lab procedure

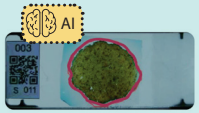
Slide preparation



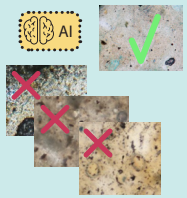
The microscope reads standard glass slides 25x75mm or custom made sample carriers of similar size. QR or barcodes can be used for tracking. The prepared slide is loaded into the microscope.

2. Pre-scan processing

Boundary detection



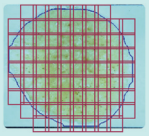
Slide assessment



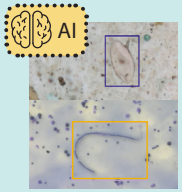
For automation of routine workflows, an AI-model for scan area detection and/or slide assessment can be trained. Ensuring a smooth workflow where only proper slides are scanned.

3. Scanning and analysis

Scanning



Detection of features of interest



The scan procedure can be customised depending on needs and the characte-ristics of the sample. Every image can be processed in parallell to the scanning, detecting the features of interest.

4. Post-scan processing

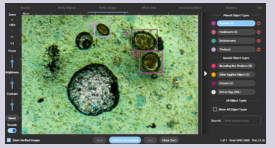
Result aggregation & Visualisation

Expert result verification

Whole slide stitching, z-stack flattening, integrations to external systems and export options available. Detected features can be verified by a human expert.

Image & AI Application

No-code pipeline to create AI-models for your specific needs.



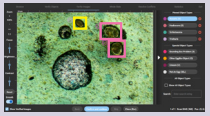
1. Image data collection

Other imaging devices

Data can be collected using Enaiblers AI-microscope or other image sources.

2. Labelling

Labelling of features



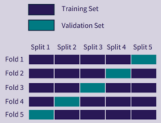
Objects/areas of interest are manually labelled to create training data.

3. Training & Validation

Model training

Verification of detected features

Model validation

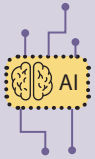


Iteration

Easily train AI-models and run them on additional data. Verify the resulting detections to expand your data set. Iterate model training until the integrated cross-fold validation indicates that the model generalises well.

4. Deployment

Final model training



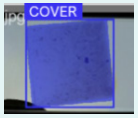
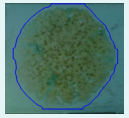
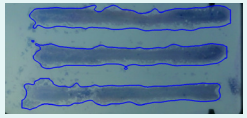
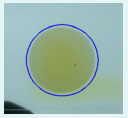
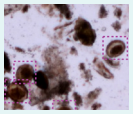
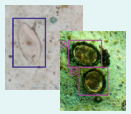
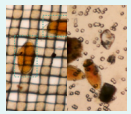
Deployment to device/ workflow

Use your complete dataset for the final model training and deploy the resulting AI-model to your workflow for smooth and integrated image analysis.

Broad applicability - easy to adapt

Epidemiological studies, disease monitoring, surveillance, entomology, environmental sampling, fluorescent stains

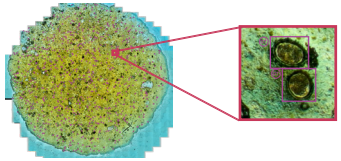
Easily automate scanning and analysis of your slides. Already trained for a range of samples including tissue sections, thick and thin blood smears, direct smears, Kato-Katz and urine filters.

BOUNDARY DETECTION MODEL					
OBJECT DETECTION MODEL					

Images captured with Enaiblers AI-microscope.

Engineered for ease of use and robust operation in resource limited settings, RAVEN is energy agnostic, compact and light-weight.

On-device whole slide image stitching and analysis ensures comprehensive coverage of the specimen.



Core features:

- ✓ Whole slide imaging
- ✓ Boundary detection
- ✓ Compact and portable
- ✓ Customisable Workflows
- ✓ Sample preparation assessment
- ✓ On-device AI analysis
- ✓ QR reader

Thanks for your interest in [redacted]

Ai powered imaging, affordable for you.

Field & Research partners

Jimma University Ethiopia

Inmed Andes Peru

Ministry of Health Uganda

Ministry of Health Zanzibar

The University of Queensland Australia

Swiss Tropical and Public Health Institute

WHO collaborating centre at Ghent University

Wellcome Trust Research Laboratory, Vellore, India

Diresa, Ayacucho, Peru

Grant providers

Recognition

Rotary Science Award

Contact details:

[redacted]