Q2 2024

REWIRE AI

Integrated AI for Biomedical Image Analysis

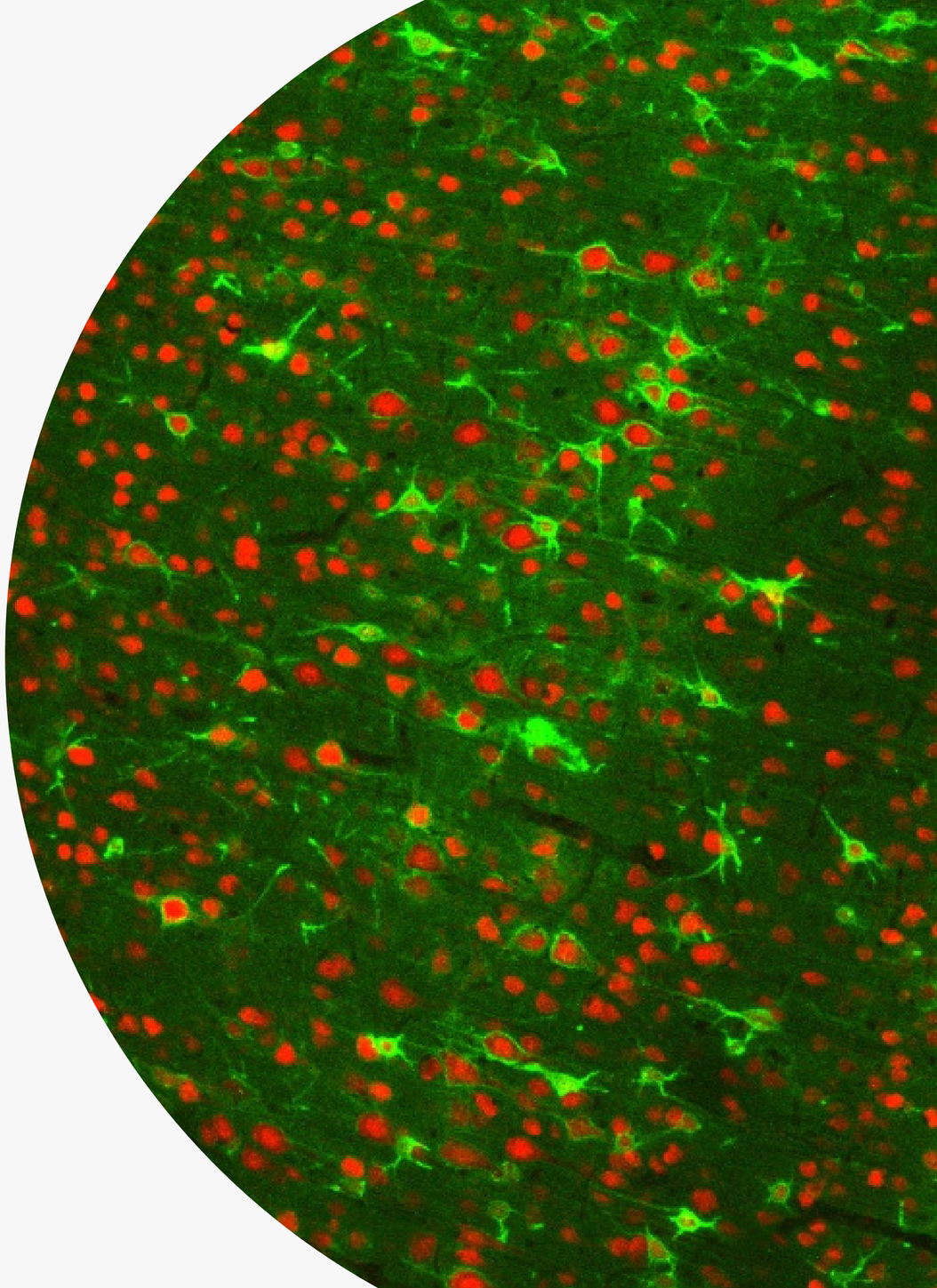
THE PROBLEM

Scientific discovery requires accuracy and efficiency

Developing cell detection technology is **time and labor intensive**

Accurate AI requires **mountains of training data**

Traditional AI presents **“last-mile” problem**

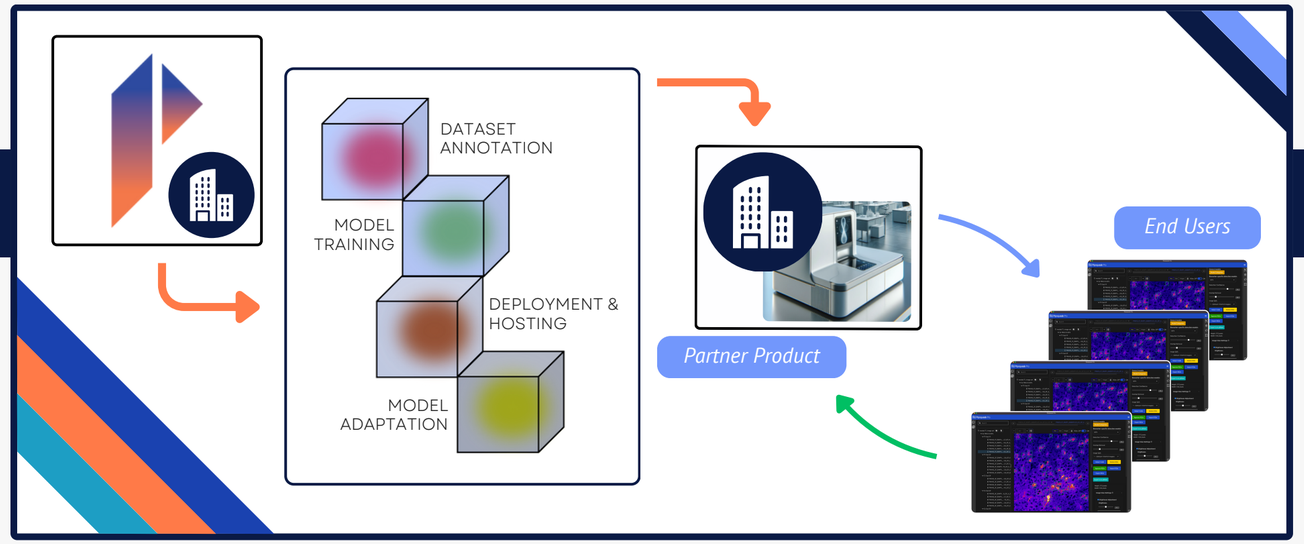


OUR ANSWER

An end-to-end solution for automated image analysis.

Rewire's cloud-based, turn-key machine learning operations platform, called ***Polygon AI***, makes it possible for partners to **automate AI model generation and integration** of AI capabilities into hardware and software products.

Polygon AI provides partners a **white-labeled environment** to enable end-users to further fine-tune, customize, and deploy AI models for their specific needs. Partners benefit from a **simplified ML Ops pipeline, strengthened on-going customer relationships, and generation of recurring revenue** from retail licensing of Polygon AI.



IMPLEMENTATION

- User Account Creation and Technical Onboarding
- Polygon AI Interface License
- AutoML Server Access

INTEGRATION

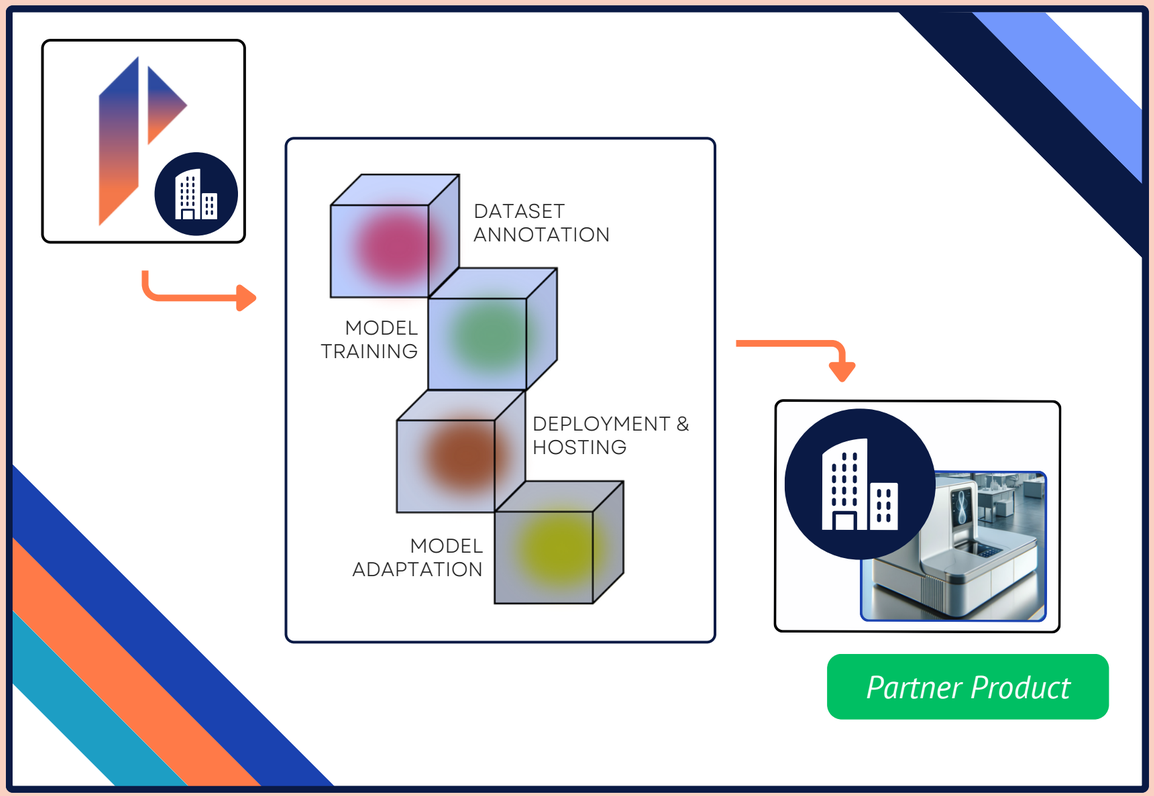
- Semi-Automated Image Annotation
- Deep ML Model Training
- Easy On-Device Deployment

LICENSING

- White-Labeled End-User Interface
- Detection Model Fine-Tuning
- Model User Account-Specific Model Access

POLYGON AI
BY REWIRE

SIGHTOLOGIST.AI
BY REWIRE



IMPLEMENTATION & INTEGRATION

Polygon AI is built to be modular and adaptable. Partners will be provided all necessary software keys, tools, and AutoML server access for complete adoption of Polygon AI into their ML workflow. This includes a compatibility with a selection of API endpoints and model-export functionality for proper device integration.

Once properly onboarded, our patented, cloud-based AutoML technology along with Polygon AI's intuitive interface allows for **semi-automated generation of training image annotations, automated deep machine learning, and easy deployment of the trained models onto the partner's product.**

LICENSING & USER FINE-TUNING

Partners may offer end-users access to a **white-labeled Polygon AI interface** in order to provide the ability to further fine-tune models with additional image annotation and automated machine learning.

End-user models can then be deployed into the partner's product for user account-specific availability. By providing end-users with customized AI capabilities, partners are able to deliver on the promise of effective and accurate AI in a multitude of user-specific conditions, while also **strengthening the customer relationship beyond the initial sale.**

Additionally, retail subscriptions of end-user Polygon AI licenses provides partners with an optional **recurring revenue stream that supports and rewards customer retention.**

EXAMPLE PARTNERSHIP

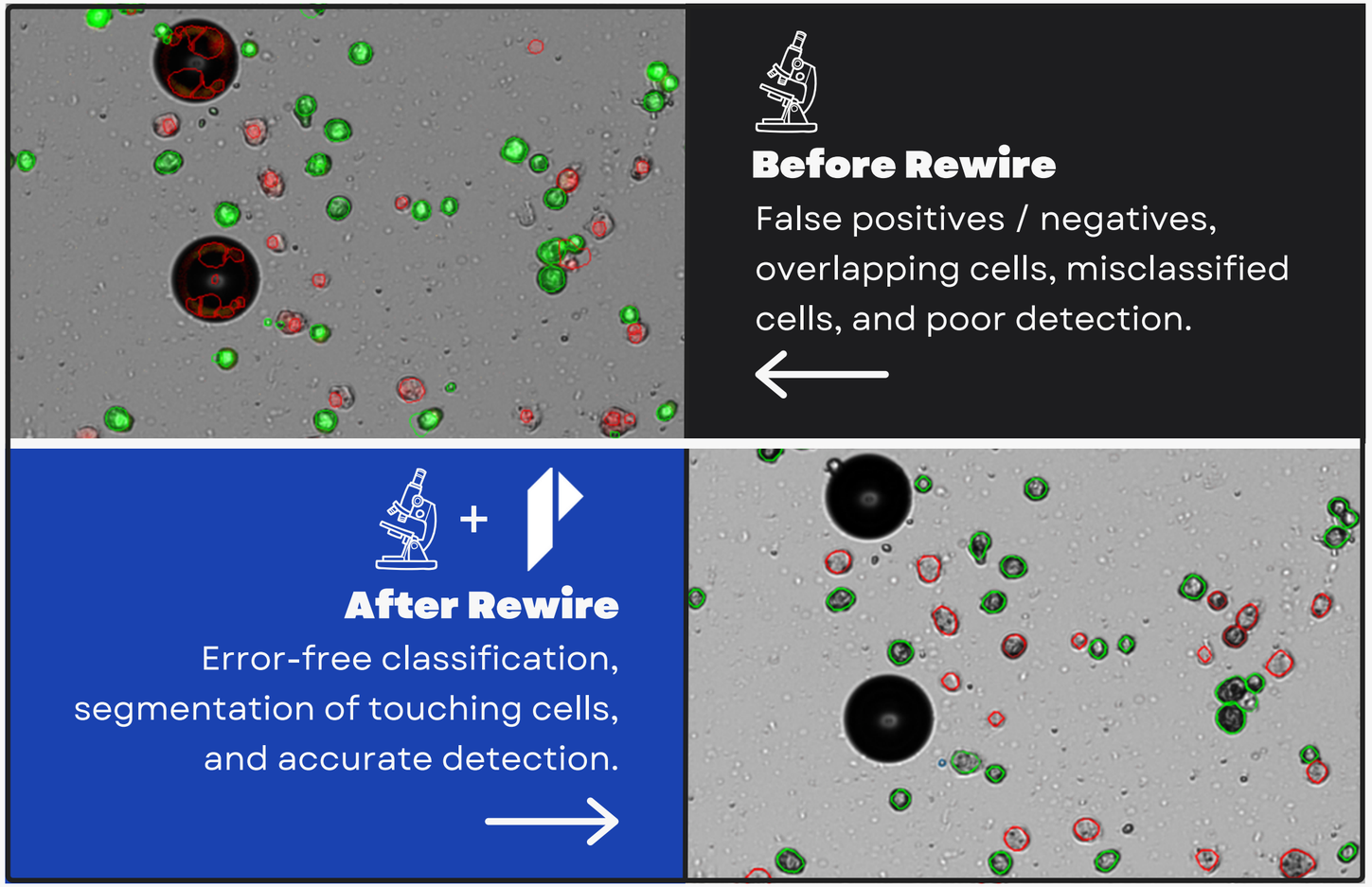
One of our current partnerships is with a hardware company that was experiencing issues with quantification on their liquid biopsy cell counter.

**stock image, not the actual device*

EXAMPLE PARTNERSHIP

After initial “hands-on” **implementation**, the company used the Polygon AI platform with their images to build a model, then deployed it on-device.

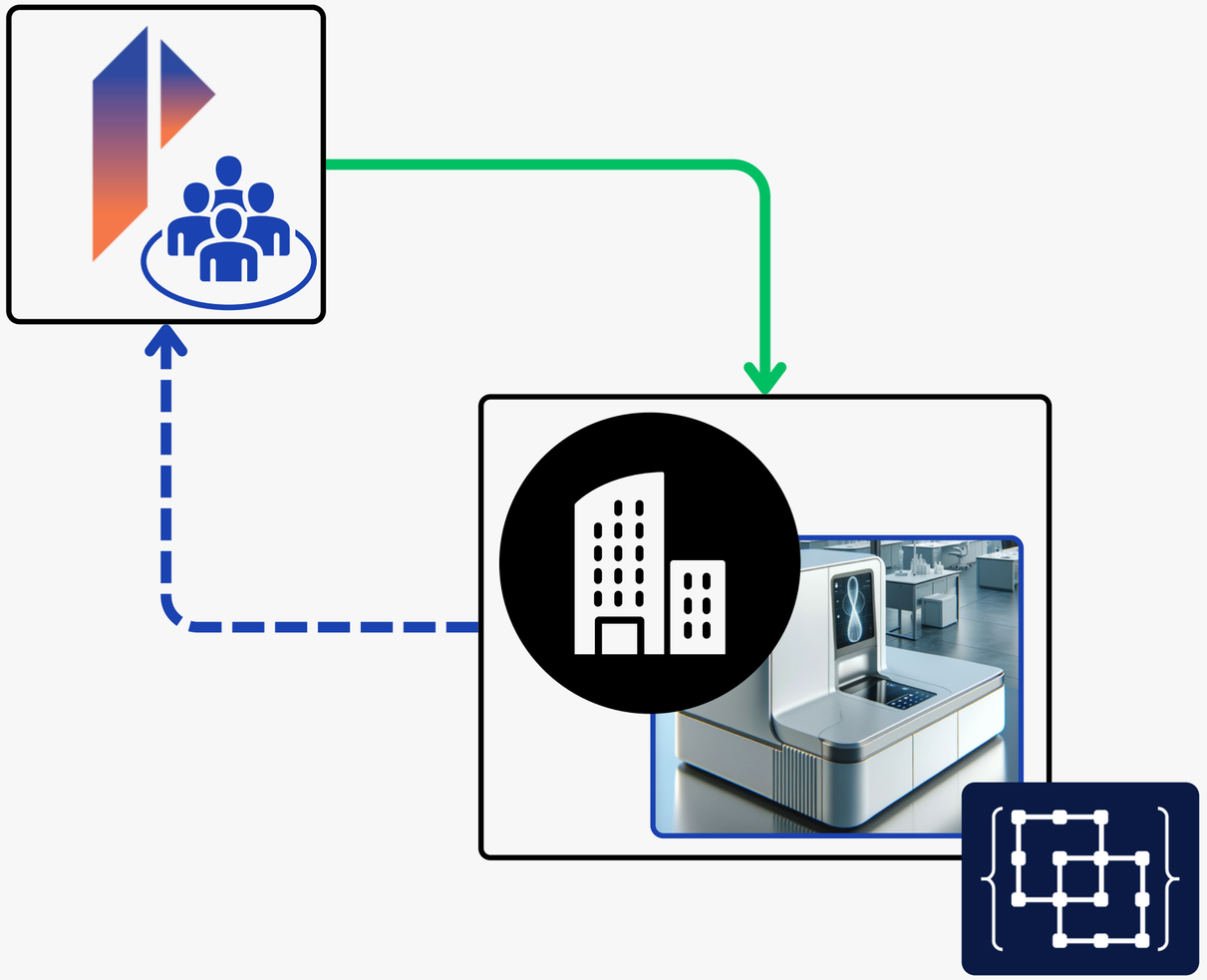
We provide onboarding and technical support throughout the partnership, and can deliver additional tools and functionality through service contracts, as needed.



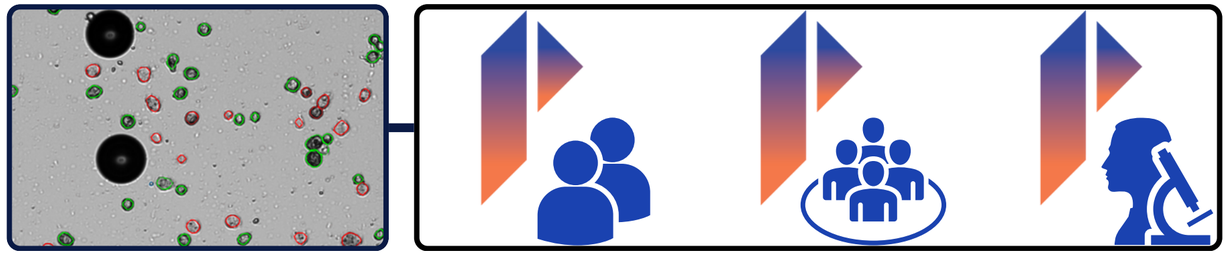
EXAMPLE PARTNERSHIP

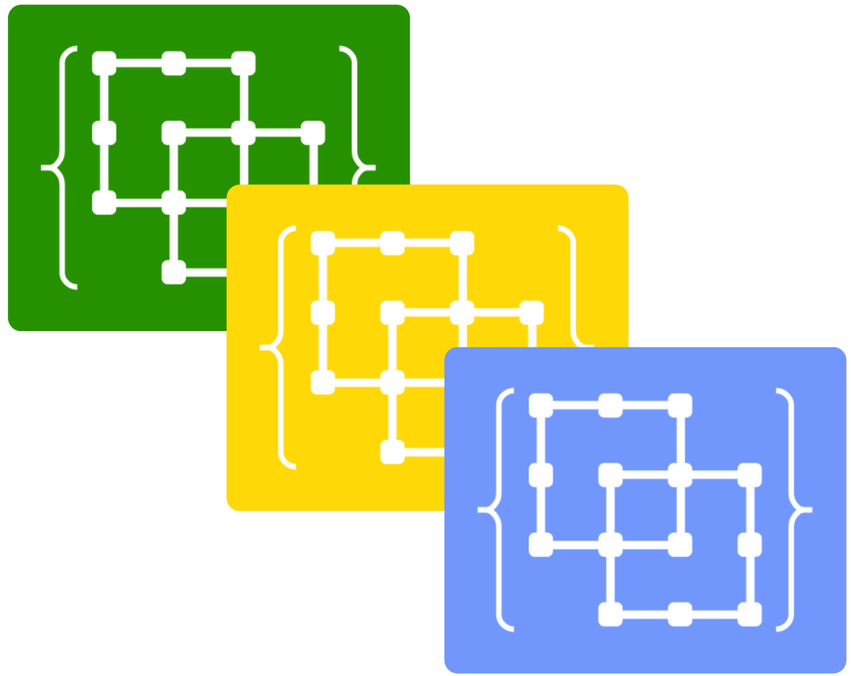
Once fully **integrated**, the company could continue to use Polygon AI for additional machine learning operations.

Our cloud-based computing platform reduces the hardware requirements for ML development and enables an automated ML ops pipeline.



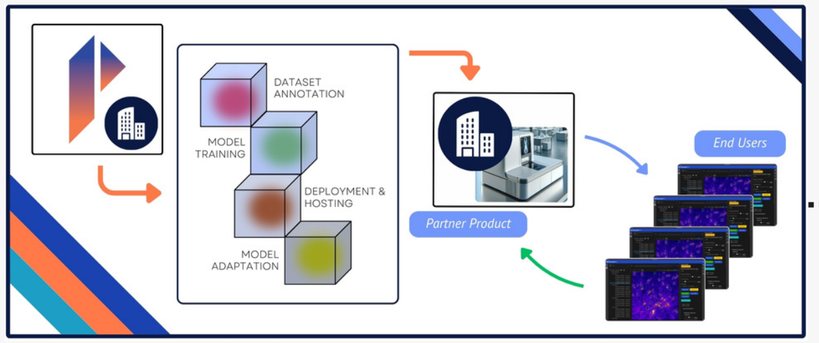
EXAMPLE PARTNERSHIP





By adding value to their already existing product, we help open up new and recurring revenue opportunities through **licensing** of the Polygon AI end-user interface.

End users are able to refine foundational models and use customized detection capabilities.



VALUE SUMMARY

FOR PARTNER

- Recurring Revenue Opportunities
- Strengthened Customer Relationship
- Simplified ML Ops Pipeline
- Improved User Insights and Data

FOR END USER

- Easy-to-Use Annotation Interface
- AI for Fast and Accurate Detection
- Cloud-Based Workflow Synchronization
- Detection Model Fine-Tuning

BY THE NUMBERS

Researchers and companies that use Rewire solutions have experienced better data accuracy, significant reduction in analysis time, and less image analysis-related costs.

97%

Reported data accuracy from Rewire AI solutions*

2500x

Faster analysis than other documented workflows*

up to 50%

Less overall cost compared to other solutions*

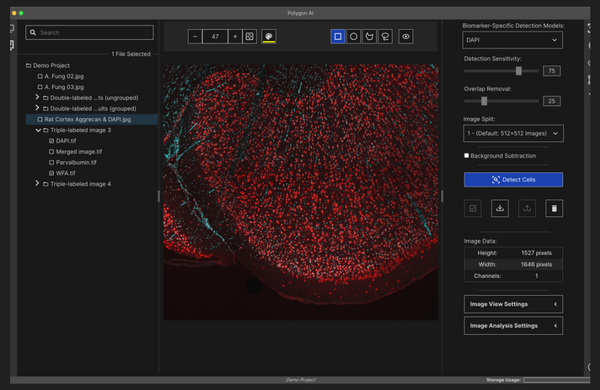
over 1.2 Billion

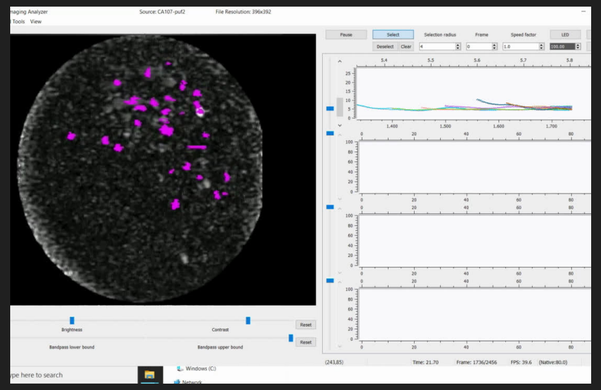
Proprietary training objects

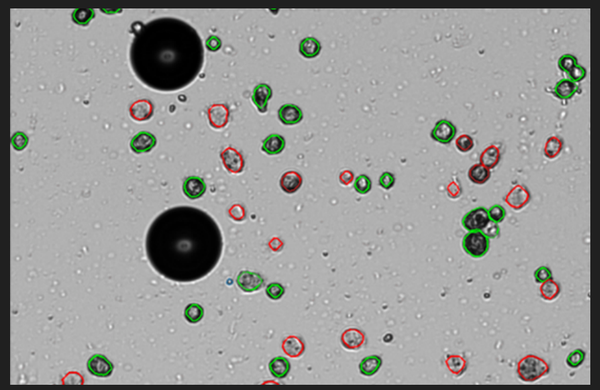
*Estimates based on market research and in-house testing. For more information, see Slaker, et al., 2016 and rewire.ai.

WHY REWIRE

Patented, Adaptive, Low-Risk







5+ OEM Partner or Service Relationships and over 3,000 Software Downloads

Diverse, Adaptable, and Accurate Detection Models

Deliverable Ownership & Visible Endpoints

BRUKER
neurescence
BIOLOGICAL OPTICAL IMAGING
UNIVERSITY OF MICHIGAN
BOSTON UNIVERSITY
OHSU
TEXAS A&M UNIVERSITY
Freie Universität Berlin
eLabNext
EPPENDORF GROUP
Penn
University of Pennsylvania
Tufts
UNIVERSITY
UCSF
THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC
NIH
JOHNS HOPKINS
SCHOOL of MEDICINE
UNIVERSITY of WASHINGTON
Washington University in St. Louis
Berkeley
UNIVERSITY OF CALIFORNIA
Yale University
School of Medicine
WASHINGTON STATE UNIVERSITY
THE UNIVERSITY OF QUEENSLAND
AUSTRALIA
QBI
THE UNIVERSITY OF TENNESSEE
KNOXVILLE
LEGACY
HEALTH
Stanford
MEDICINE

REWIRE AI

Integrated AI for Biomedical Image Analysis

FOR MORE INFORMATION:

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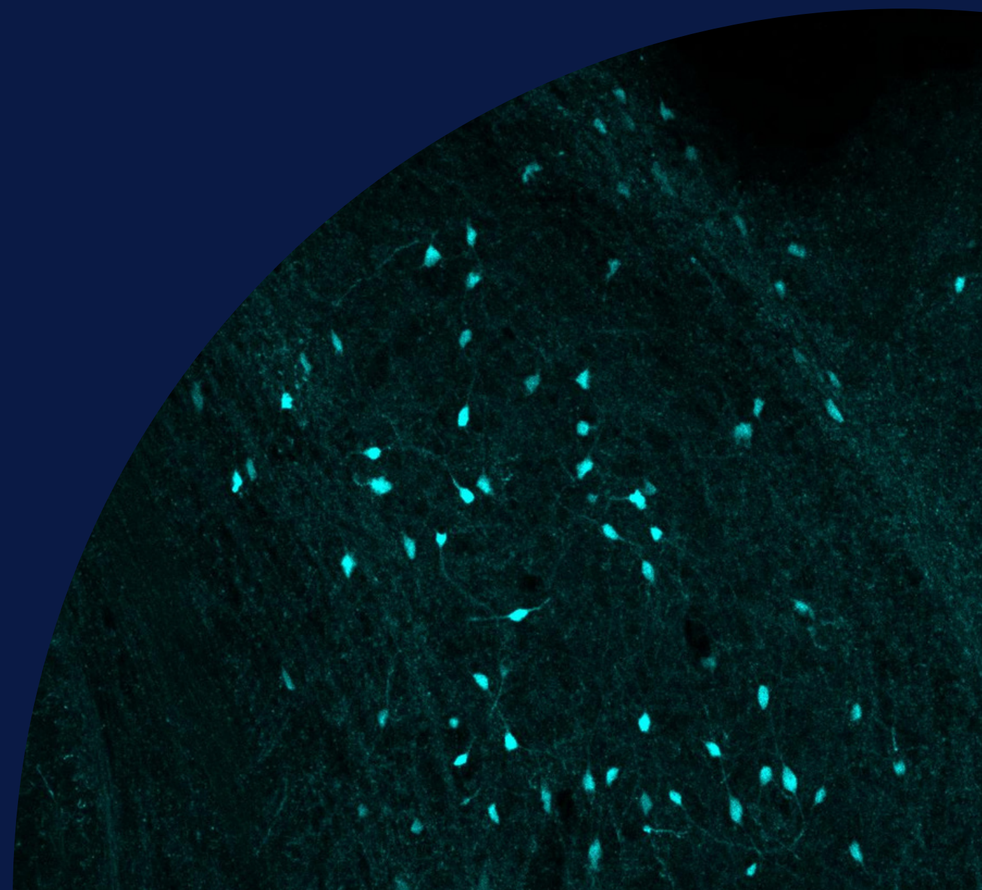
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