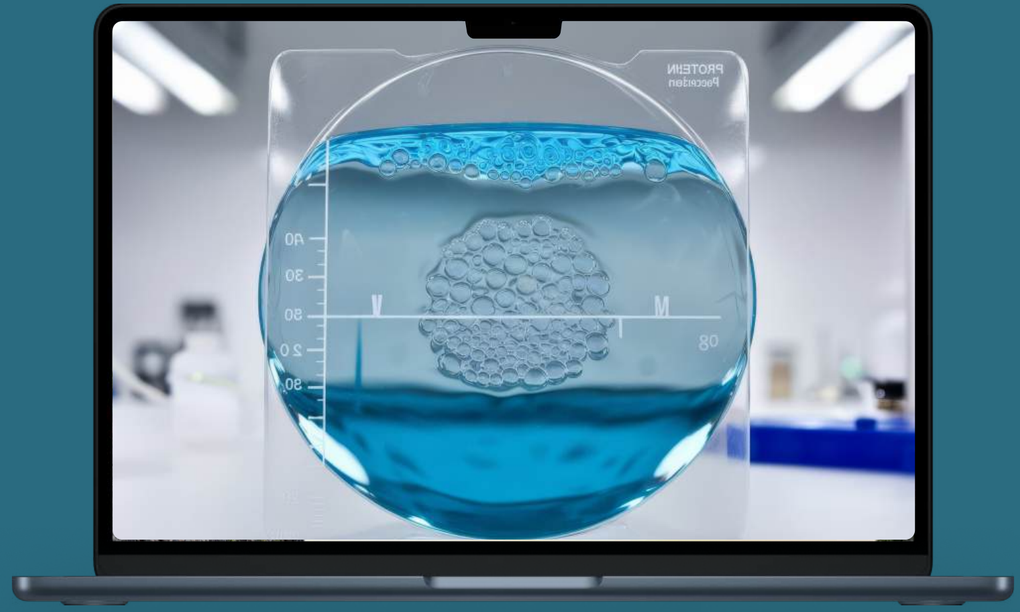
MOBILUNITY
CASE STUDY

PETRI DISH IMAGE ANNOTATION FOR A BIOTECH COMPANY

Precise annotation of Petri dish imagery for AI training

Model of cooperation: **3 Dedicated Part-time Annotators**

Successfully annotated **115,000+** biological objects across complex Petri dish datasets.



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Cooperation Background

A US-based biotechnology company working on AI-powered biological analysis needed support with large-scale image annotation. The project focused on Petri dish imagery containing hundreds of microbial colonies that had to be accurately outlined and classified for machine learning purposes.

Because of the complexity and volume of the data, the client was looking for a partner capable of building a reliable annotation workflow while maintaining a high level of precision across the entire dataset.

CLIENT'S PROBLEM

The client needed accurate polygon annotation for highly detailed laboratory images. Each Petri dish contained a large number of colonies with different shapes, sizes, and visual characteristics, making the annotation process both time-consuming and technically demanding.

Key requirements included:

- Precise polygon annotation of biological colonies
- Experience working with CVAT
- Ability to process large image datasets efficiently
- Consistent annotation standards across all tasks
- Fast onboarding and team training

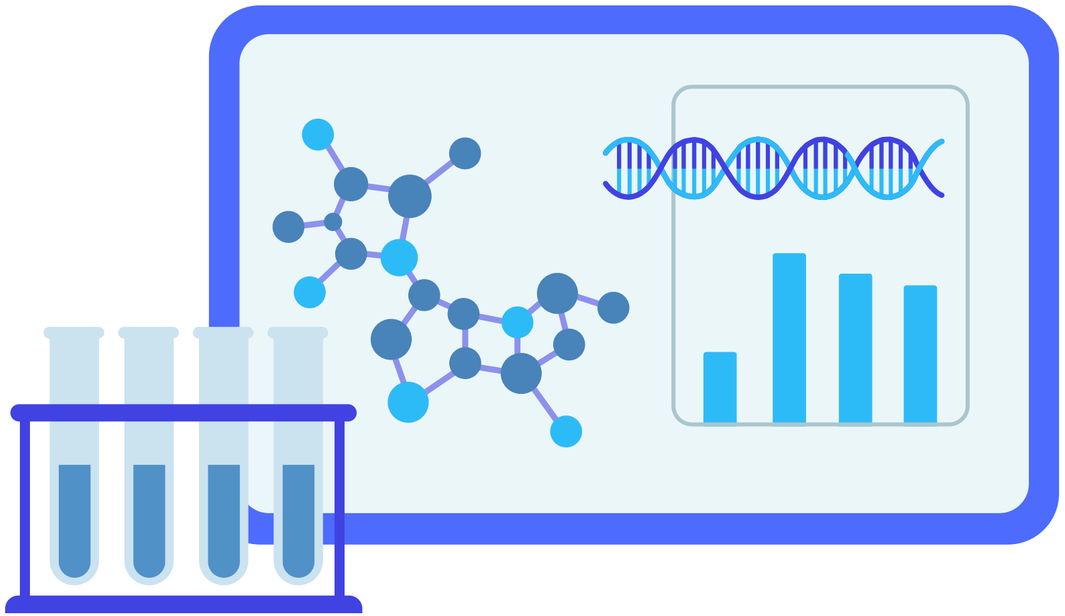
The project eventually involved more than 115,000 annotated objects, requiring strong coordination and quality control throughout the process.

PROJECT CHALLENGE

The most difficult part of the project was aligning annotation standards between the client and the annotation team. Images often contained hundreds of overlapping or visually similar colonies, where even small interpretation differences could affect consistency.

Establishing a shared understanding of how each colony should be annotated required ongoing communication, detailed feedback loops, and continuous refinement of the guidelines.

At the same time, the team had to maintain stable quality across a growing dataset while working within structured workflows in CVAT. Balancing speed, precision, and consistency became a critical part of the project's success.



Mobilunity-BPO Solution

Mobilunity-BPO built a structured annotation workflow tailored specifically to the client’s biotechnology use case.

The process included

- Organizing the selection and onboarding process
- Training the annotation team on project-specific requirements
- Setting up and managing the project environment in CVAT
- Processing large volumes of image data with detailed polygon annotations

A dedicated team of 3 part-time annotation specialists was trained to follow unified annotation standards and maintain consistency across all datasets.

To support long-term collaboration, Mobilunity-BPO also introduced a managed service approach that included:

- Regular communication with the client
- Ongoing clarification of annotation rules
- Continuous quality monitoring
- Workflow optimization and workload coordination

This approach helped the project scale smoothly as the dataset expanded and annotation requirements became more refined over time.

Outcome

Over two years of collaboration, Mobilunity-BPO successfully supported the annotation of more than 115,000 objects across complex biotechnology image datasets.

Through continuous collaboration and iterative improvement of annotation guidelines, the annotation process became highly consistent and scalable. The client was satisfied with the results, and the cooperation continues as the project grows further.

The client received:

- Stable and accurate annotation quality
- Efficient handling of large-scale datasets
- Well-structured workflows inside CVAT
- Reliable operational and communication support

Few Words About Cooperation with Us

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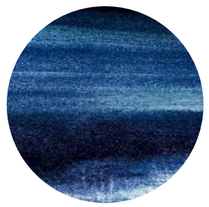
Working with Petri dish imagery at this level of detail requires much more than basic annotation skills. Mobilunity-BPO built a reliable process, trained a strong team, and helped maintain consistency across a highly complex dataset over a long period of time.



Data Scientist,
Clients Company (under NDA)

CONTACT US

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