

# Cloud-enabled lab operations at Mass Innovation Labs

Connected lab strategy for monitoring, management, and optimization of shared resources ensures experiment integrity









# Size

124,00 square feet Approx. 20 companies

# Industry

Biotech shared labs

# Summary

Cloud-enabled infrastructure management and data collection

Centralized mission control

Mass Innovation Labs is a transformational laboratory work space that provides research scientists with an ondemand, pharma-grade research environment to accelerate scientific discovery and therapeutic commercialization. With 124,000 sqft of laboratory space shared between approximately 20 different biotech companies, Mass Innovation Labs has a unique need to maximize its resource efficiency.

Mass Innovation Labs partnered with TetraScience to deploy real-time monitoring, alerts, and dashboards across its instrument fleet to address the common challenges associated with infrastructure and equipment maintenance that plague all modern laboratories. This partnership supports the launch and growth of cutting-edge biology and chemistry research initiatives by helping scientists avoid the disruptive and costly instrumentation issues that are prevalent in modern lab operations.



TetraScience Monitoring improves our day-to-day operations by eliminating administrative bottlenecks and disruptions. The ability to look back at historical data such as temperature and pressure also helps tremendously when troubleshooting instrument and experiment discrepancies.

- Lea Medeiros, Senior Lab Manager at Mass Innovation Labs



#### **CLOUD-ENABLED AUTOCLAVE MANAGEMENT**

Due to the high throughput of its shared laboratory space, proper sterilization of glassware and liquid solutions is of critical importance. Contamination can set a project back by weeks. For this reason, Mass Innovation Labs relies on cloud-enabled autoclaves from **Consolidated Sterilizer Systems** that stream operational data to the TetraScience dashboard.

On one occasion, after a number of test strips indicated that their autoclave cycles weren't successful, the MIL operations staff consulted their online instrument dashboard and noticed a discrepancy. Though the test strips kept failing, the TetraScience dashboard showed that the autoclave had indeed reached the correct pressure for long enough to successfully sterilize the contents of the autoclave. CSS support was able to remotely log into TetraScience to view the data and not only troubleshoot the issue, but optimize the sterilizer cycle of the autoclave. The MIL team learned that by adding a minute to the sterilizer cycle, the test strips would show the correct results rather than the false positive.

#### FREEZER MONITORING

Mass Innovation Labs also uses TetraScience to monitor their cold storage - including refrigerators, freezers, and cryostorage - which hold invaluable cell culture stock. One day, the digital display of one of the freezers showed a sudden increase of 16 degrees C, posing issues for several different member companies. A temperature increase of that magniture would have compromised the freezer, rendering the samples unusable. However, by checking the TetraScience dashboard, the MIL staff was able to verify that the temperature of the freezer had actually stayed within safe thresholds, and that the issue was only with the display monitor. This verification saved the entire contents of the freezer from being discarded, preventing frustration and project delays.

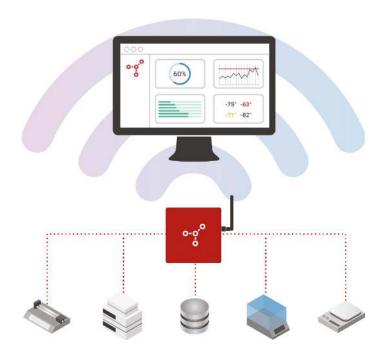
#### **DAY-TO-DAY OPERATIONAL EFFICIENCY**

Utilizing TetraScience's real-time dashboard as a centralized mission control for their instrument fleet, the Mass Innovation Labs staff are able to check on any instrument and ensure stability with a single login. Member companies are also able to verify stability at a glance from the dashboards displayed throughout the labs, with additional phone and email alerts to provide peace of mind and eliminate manual temperature checks. TetraScience and Mass Innovation Labs have partnered to leverage the most state-of-the-art lab management technology to help growing biotech companies minimize administrative and logistical hurdles and instead focus on scientific discovery.





# Mission control for R&D



TetraScience connects your existing lab instruments to a single online dashboard where you can manage experiments and equipment, plus access data. Easily connect the dots between data, insights, and outcomes.

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