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# Unravelling the Myths of Laboratory Automation

Manual sample preparation is labor intensive, error prone, and requires highly skilled personnel to be done well. Laboratories are turning to automation to reduce cost, improve reproducibility, and minimize operator error.

Automation frees up technical staff to perform more high-value work. Access to automated instruments was once limited by their large size and complexity, but now automated solutions are compact, modular and flexible-ideal for both novice and experts.

This infographic will unravel the common myths surrounding laboratory automation and explore how any lab can seamlessly integrate automation technology, optimize reproducibility, and increase confidence.

## Discover the truth about laboratory automation

| Myth | Truth |
|---|---|
| 1<br>**Automation is costly** | **See a return on investment in less than a year***<br>Increased consistency and reproducibility contribute to the cost efficiency of automation, and lower error rates decrease costly sample reruns.<br>Try the Agilent automation cost calculator to estimate how much time and money your organization could save per year.<br> <br>* In a lab where 4 people pipette for 2 hours, 3 days a week, at a typical error/ rerun rate of 4%. |
| 2<br>**Automation only offers value to high-throughput workflows** | **Automation benefits every single sample, regardless of throughput**<br>Increased accuracy, precision and reproducibility can improve both high- and low- throughput workflows.<br> |

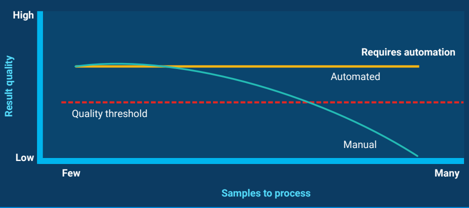
3

**Automation does not offer any advantage over a skilled technician**

### Achieve superior speed and efficiency

Automated systems can operate for longer periods of time, with higher accuracy and speed than the most skilled technicians.

More importantly, automation allows scientists and technicians more time to focus on data analysis, workflow improvements, and discoveries.



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**Automated systems are complicated and confusing**

### It doesn't need to be complicated

Agilent's user-friendly interface makes automation as simple as running an app. VWorks Standard and VWorks Plus (for laboratories requiring US FDA 21 CFR Part 11, EU Annex 11 and other regulatory compliance) seamlessly integrate multiple instruments.

Preprogrammed, optimized protocols and an intuitive user interface make sample runs easier for both expert and novice users.

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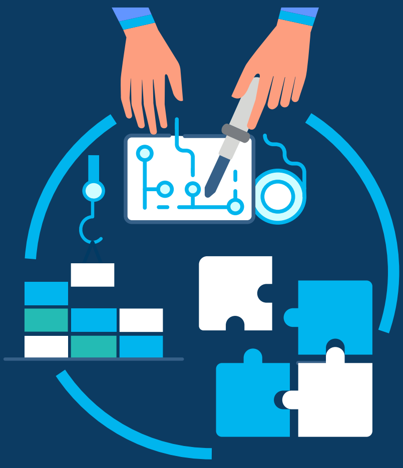
**Automation systems are hefty and inflexible**

### Agilent solutions are compact, powerful, and versatile

Agilent's modular, benchtop solutions can be adapted and accessorized to suit a variety of workflows and the evolving needs of your lab.



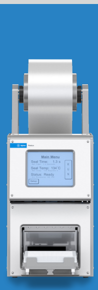
## Modular solutions to build the workflow you need today and reconfigure as your needs evolve

Lab automation can support both high- and low-throughput workflows including liquid handling, plate reading, sample management, and imaging. Agilent systems offer flexible solutions for a variety of workflows and protocols with a range of throughput needs.

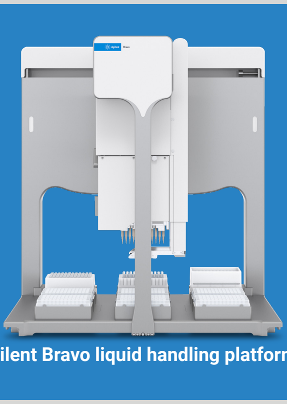
**BioTek Epoch 2 microplate spectrophotometer**

**BioTek Cytation 7 cell imaging multimode reader**

**Agilent microplate centrifuge**



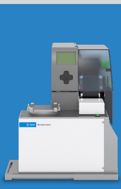
**Agilent PlateLoc thermal microplate sealer**



**Agilent Bravo liquid handling platform**

**Labware Minihub**

**BioTek EL406 washer-dispenser**



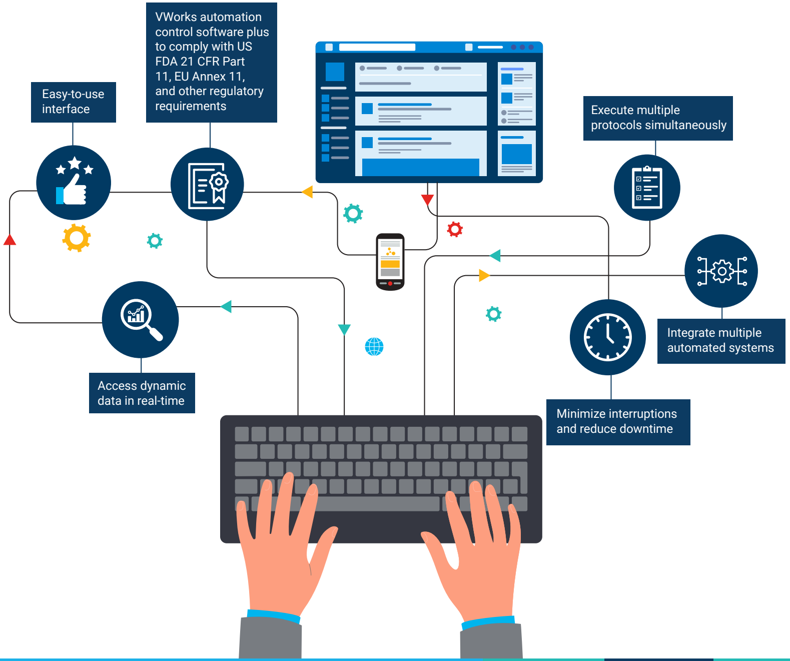
**Agilent microplate barcode labeler**

**BioTek MultiFlo FX multimode dispenser**

**Validated, application-proven consumables**

# Streamline, integrate, and execute with automation control software

Agilent VWorks automation control software streamlines workflows by integrating devices such as robotics, liquid handlers, readers, and washers.



Easy-to-use interface

VWorks automation control software plus to comply with US FDA 21 CFR Part 11, EU Annex 11, and other regulatory requirements

Execute multiple protocols simultaneously

Access dynamic data in real-time

Integrate multiple automated systems

Minimize interruptions and reduce downtime

## Learn more

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