

The barriers to lab digitization are gone

All Digital 1

It's time to transition

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Digital data is in everylab

Every life science lab is now generating experimental results in digital form. Probe detection uses highly sensitive digital cameras instead of photo paper. Digital video recordings can span days or weeks with no limitation on duration. Genomics and proteomics generate vast amounts of digital data. And all of this experimental data is mined and analyzed by software that gives a depth of insight never before available.

Paper plus digital - a recipe for failure

Many scientists struggle every day to combine paper lab notebooks with digital data in a hybrid, analog-digital approach. Printing, cutting, and pasting into lab books might be a coping mechanism for some, but as digital data have become larger and more complicated this is rarely an adequate solution. External hard drives, writable optical discs, and USB drives containing valuable information are scattered all over the lab. The information can easily disappear with time or be lost. Digital data saved on various media in the lab is simply

not secure. To guarantee absolute safety, data on these media would have to be refreshed in three-year cycles onto new media types, in at least one geographically separated location, to ensure redundancy in the event of fire or theft. Such an approach is both risky and inconvenient. Finding the results of a specific experiment and all its associated details on scattered media and hard copy records could take many hours of work with no guarantee of success. Even if you do find the specific details, it remains nearly impossible to compile a report of similar experiments both efficiently and exhaustively, causing precious information to be lost.

“Digital data saved on various media in the lab is simply not secure.”



“If data are digitized completely using information management systems, searches and queries are only a few clicks away”

All digital solves existing problems and gives new flexibility

If data are digitized completely using information management systems, searches and queries are only a few clicks away. More importantly, the data are securely stored in dedicated datacenters that are, by design, resilient against failure of data carriers and services. Being afraid of losing the flexibility and convenience of pen and paper, some scientists avoid moving towards a digital system. Generally, the opposite is true. Platforms exist that fully integrate an Electronic Lab Notebook with Protocol Management and Sample Management Software. This means that a complete experiment can be planned and documented within seconds. Lab software uses adjustable templates that take into account the association and organization of the samples in the freezer with the data that is being generated. Laborious, detailed (re) writing of protocols is no longer necessary, and anything that needs to be known is instantly available. Scientists who record experiments digitally spend less time writing and more time conducting experiments. The software can automatically control and integrate data readings from lab equipment, which improves

the quality and reproducibility of experiments by minimizing human error and variability. And importantly, data can be found, extracted, and compiled in any form.



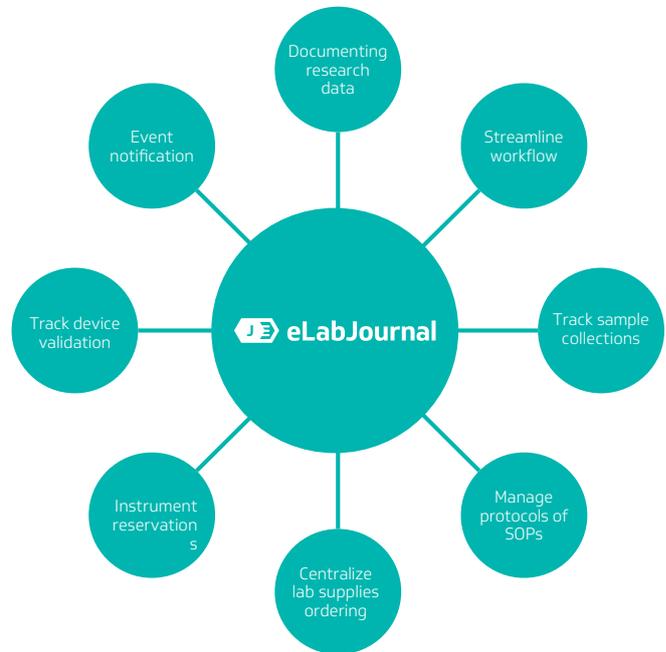
Making all digital work

The question is not whether all life science labs will go entirely digital, but when and how. The benefits are overwhelming and reliable; effective software is available and has passed the test of time; and secure, reliable storage systems run in the cloud and on internal servers.

Labs competing for funding in academia or supporting innovation in business that continue to use hybrid analogue and digital systems will fall behind. And they will find it increasingly difficult to attract the best scientists.

Many systems are highly configurable and can adapt to any type of laboratory. But bad decisions early on will bring great pain later. It is important to realize that you don't need to know what type of data you will want to store in the future. This can be adjusted and evolve with the lab itself. What you do need to anticipate is the kind of questions that you will be asking the

system and the reports you will wish to receive. Sitting down with your colleagues and making a solid plan first will make all the difference. And better yet, ask your chosen vendor to offer expert consultancy services, seasoned across many labs, to aid in this process.

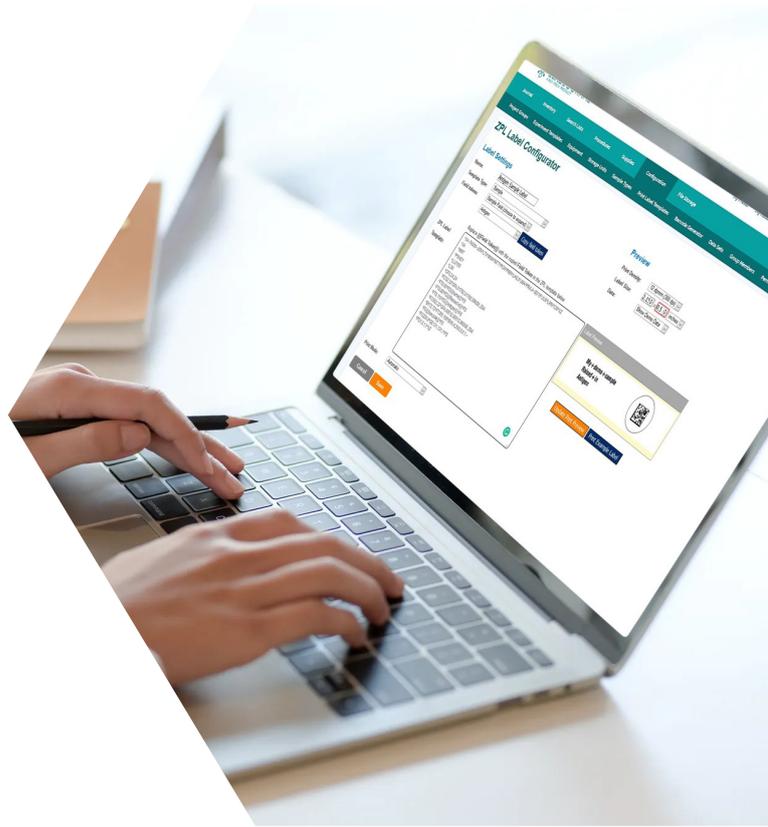


The transition to all-digital systems requires careful planning and should preferably be assisted by life science experts who have thorough understanding of the software.



About eLabJournal

eLabJournal offers an intuitive and flexible solution to manage information in your lab. The all-in-one Electronic Lab Notebook also includes modules for sample tracking and protocol management. eLabJournal improves efficiency when documenting, organizing, searching and archiving data, samples and protocols. The software is suitable for any lab ranging from small academic laboratories and start-up companies to large academic institutes and globally operating companies.



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All of our product specialists have a scientific background and are happy to discuss your needs. Schedule a demo for a free, no-obligation product demonstration.

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