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LABORATORY INFORMATION MANAGEMENT

How to prepare your lab to go paperless

Science has an almost infinite amount of topics to study. A considerable number of types of organizations are active, ranging from small R&D departments to large research groups, and from academic to business-oriented Life Science laboratories. Every lab has a different goal and is unique amongst the many. Yet, despite differences, there are several general rules that make the necessary transition to go paperless successful.

Start small, get acceptance

Change can only happen with the right amount of traction happening at the right point in time. Even if the change will lead to a higher efficiency level for everyone involved, missing the right amount of traction will cause any behavior to fall back to old habits (Michie et al., 2014). Timing or the current situation can give rise to enough intrinsic motivation for stakeholders to start the process of becoming a paperless lab. Traction can be found by starting with a small group of people, including key persons that represent the organization. Having acceptance from this group allows commitment throughout the process. Leaving out key persons, however, may have the opposite effect and delays the process of acceptance (Iverson, 1996).

Take trials, prevent errors

Going ahead and experiencing the change is the best way to know if and how your lab will benefit from digital documentation. In this regard, a wide range of possibilities is offered by the many 'Software as a Service' solutions. This allows end users to experience the product without prior investments. In most cases, SaaS suppliers can offer feature- or time-limited trials for a reasonable price that allow you to get straight to work with the new tools.

Enter the trial phase with a small group of key persons to create a constructive environment. This trial phase also prevents wrong decisions with long-term effects. This is also the phase in which user requirements are determined, for instance by setting up a list according to the MoSCoW method (Clegg and Barker, 2004).

The MoSCoW method helps you compile an exhaustive 'User Requirements' list that divides into: Must have, Should have, Could have and Won't have. If possible, involve a consultant to help in this process, or ask the vendor for support during the trial phase.

How to compare and choose a product effectively

It is possible that the key members of the trial project group already have their favorite choice of vendor to assist during the process of becoming a paperless lab. This may be a key factor in the decision making process, but the trial phase will give you a good opportunity to properly and objectively compare the offers. By using the compiled 'User Requirements' list, you can identify which vendors are able to at least offer the 'Must haves'. In addition, you can request quotes from vendors, whom currently do not offer all your Must haves, to develop these. Follow the rest of the list to compare any additional requirements. Together with an invoice, this should give an excellent foundation for decision making.

Get big, be productive

After selecting your lab software solution, implement the software into the rest of your department or organization. At this point you will really benefit from the solution and rake in the productivity boost. Depending on the size of the end user group, one or more users will need to be assigned the role of key user. Key users are responsible for keeping the lab software running

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smoothly by ensuring that the system is properly configured. This maximizes the efficiency for the individual as well as the group in the lab. With their first-hand experience key users can support everyone in the lab. Together with the vendor's support, this ensures a long lasting positive effect on the laboratory workflow.

References

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