Automation Initiative Prioritization and Grouping

Achieving Long-Term Transformational Success with PLM in Life Sciences, Part 13

by Dave Hadfield

In this series, we are looking at why life sciences companies aren't achieving full value from PLM. In the last few entries, we considered how developing strategy is key, and we identified that we must start to convert the product's lifecycle into a set of potential automation initiatives. Now we'll look at how to prioritize those initiatives to develop a roadmap.

Companies should not try to implement too much change at any given time. There will be multiple constraints from preventing us from doing so: budget, business driver priority, resource availability, ability to manage change, and considerations related to incumbent tools (like point solution capital investment schedules), not to mention some inevitable politics.

Prioritizing with a Quality Functional Diagram

My colleagues and I have found it useful to use a Quality Functional Diagram (QFD), which we learned from someone who was is a Six Sigma Master Black Belt. A QFD is a prioritization tool that stacks options against a set of variables. Each initiative option is scored across each variable (I like to use a 9/3/1 scale where 9 is "high impact," 3 is "moderate," and 1 is "low"). Variables should include things that matter to the strategy, such as the ability to impact business drivers and support for an innovation-focused business strategy. While there is no set-in-stone formula here, variables I find useful include: organizational readiness for change; PLM architecture contribution (like building a house, we give priority to foundational components); and the ability to positively influence results from innovation (if not already covered by other drivers).

For each initiative, ask yourself, "By executing this initiative, what will be the impact to each variable?" Once we have scored each initiative across each variable we have an objective basis for comparing relative priority.

If done well, a QFD can be a lot of work. Teams should provide solid rationale for every score. But numbers and QFDs alone can be misleading, so beyond the quantitative comparison, a good dose of qualitative comparison should be added. Consider system usability and other harder to quantify rationale.

Developing a Release Roadmap

Once key stakeholders have agreed on the prioritization of automation initiatives, we can start grouping them into releases.

How do you group initiatives into a set of releases? Look at dependencies and synergies. Initiative X may be a really high priority, but perhaps it doesn't make sense unless we also do initiative Y and Z (for example, to do regulatory automation well, it's helpful to have the Design History File or DHF, since the data is often the same). Also look at synergies. For example, when implementing CAPA, it's also useful to look at risk management since the two are highly correlated.

Don't be afraid to spend time analyzing the various options; these are really big decisions around which business drivers are most important to your business. Those are the basics to prioritizing and grouping the initiatives you'll automate with PLM. In the next entry we will consider how to solve common strategy problems you are likely to encounter.

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