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The Essential Guide To Managing Biotech Labs

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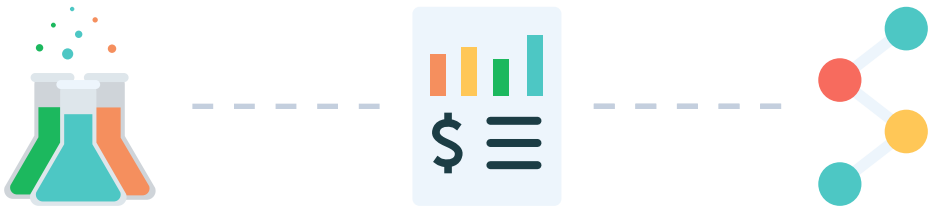
Biotech is both a high-growth and high-risk industry. In this field, success strongly relies on the science behind every concept that a company strives to make a reality. One of the main challenges in biotech is that the outcome of any long-term R&D project heavily depends on time-sensitive experiments that can sometimes cost a little fortune each.

A great idea and quality science are essential for success in biotech, but proper management of time and costs can make the difference between a product reaching the market or being abandoned during development. So it's never too early for a company to start worrying about finance and maximize the possibilities of its ideas coming to life.



In fact, monitoring and controlling R&D expenses can bring benefits from the very early proof-of-concept stage. The high costs, strict regulations and long development periods associated with biotech make a project challenging from the very beginning. Meanwhile, attracting funding that meets the huge demands of research in biology can prove extremely difficult.

Managing the use of limited resources can therefore determine whether a young company can advance through the expensive process of developing a life-changing product. Among the many factors involved in making every step along the way possible, procurement can have a big influence on the financial health of a company over time.

What is Procurement?

Purchasing is part of the everyday life of R&D staff. Consumables like pipette tips and sterilized containers, as well as a wide array of reagents and cells are used in a daily basis. Having the right compound available at the right time is absolutely necessary to run the experiments that sustain an institution.

Procurement comprises all the steps involved in a purchase, from the initial selection of items to receiving the final order, updating the inventory and billing the vendor. The process usually involves the integration of multiple orders from different departments and members of staff as well as negotiation with the supplier concerning price and date of delivery.

The purchasing culture of a biotech company determines how purchases are made, which ultimately determines the cost and time of everyday activities. Choosing the right method to monitor and manage purchases can either boost the capabilities of an R&D department or hinder the advance of its project pipeline. The first step towards identifying the best procurement system is knowing what the most pressing challenges in biotech procurement are.

Challenges in biotech procurement

Strong regulations

Biotech is the most heavily regulated industry around. Every organization conducting research in Life Sciences deals with sensitive biological materials, many of them classified as dangerous for health, security and the environment. Therefore, the authorities require them to adopt very specific handling and disposal procedures.

This translates into strict guidelines to ensure all purchased items comply with the established regulations. Research departments need to provide detailed reports of their purchase history often, whether for financial audits, government grants or to obtain approval from regulatory agencies.

In particular, the US Food & Drug Administration (FDA) is one of the agencies that most influence the biotech field. The FDA is the one who decides whether a biotech product can be launched in the US. To declare a product safe and effective, the FDA makes thorough reviews that include inspections of the laboratories that run the experiments used to apply for approval and the facilities where FDA-regulated products are manufactured [1]. These inspections include purchasing controls on every product, component or services purchased to ensure they meet the regulations [2]

Since receiving regulatory approval is an indispensable step to launch a product, good management and tracking of the purchase history of a biotech company is absolutely necessary for the success of its projects.

Funding

In biotech, both public and private funding is usually limited, at least in comparison with the extremely high costs associated with R&D. For example, for young companies, the median amount raised in the first financing round of a biotech startups is $10M [3]. As they progress, funding increases; venture capital funds for companies of all stages invest an average $20M in the US and $12M in Europe [4]. Then, there are public grants, which rarely reach the seven digits. As an example, biotech grants from the US Department of Agriculture average $486,385 awarded for a period of 36 months [5].

At first sight these numbers can look huge, but the reality is that R&D consumes a massive amount of money, time and resources. Developing a drug costs an average of $2.6Bn until its approval [6], and the probability that a drug entering clinical testing will be approved is only around 10-12% [6, 7].

It's true that biotech companies and institutions don't usually run the whole development process, often making licensing agreements with big partners as candidates progress through clinical trials. However, just considering drug discovery and development activities before entering clinical trials, the average is still at $1.1Bn over a period of 5 years [6].

In the area of medical devices and diagnostics, the costs to bring a product from concept to the market are much lower. For high risk devices and diagnostic tests, the costs average is at $94M and $106M, respectively [8, 9].

The amounts can greatly vary depending on the specifics, but costs are certainly high for any R&D project. It is then clear that the optimization of all available resources is essential from the small startup to the big public institution.

Time constraints

“When it comes to the biotech industry, everything is time-sensitive. You can’t produce results again.You have a narrow window, and if the items don’t come in, it can affect years of work. A procurement system is instrumental to ensure there’s continuity and success in these experiments.”

Tai Nguyen, J. Craig Venter Institute

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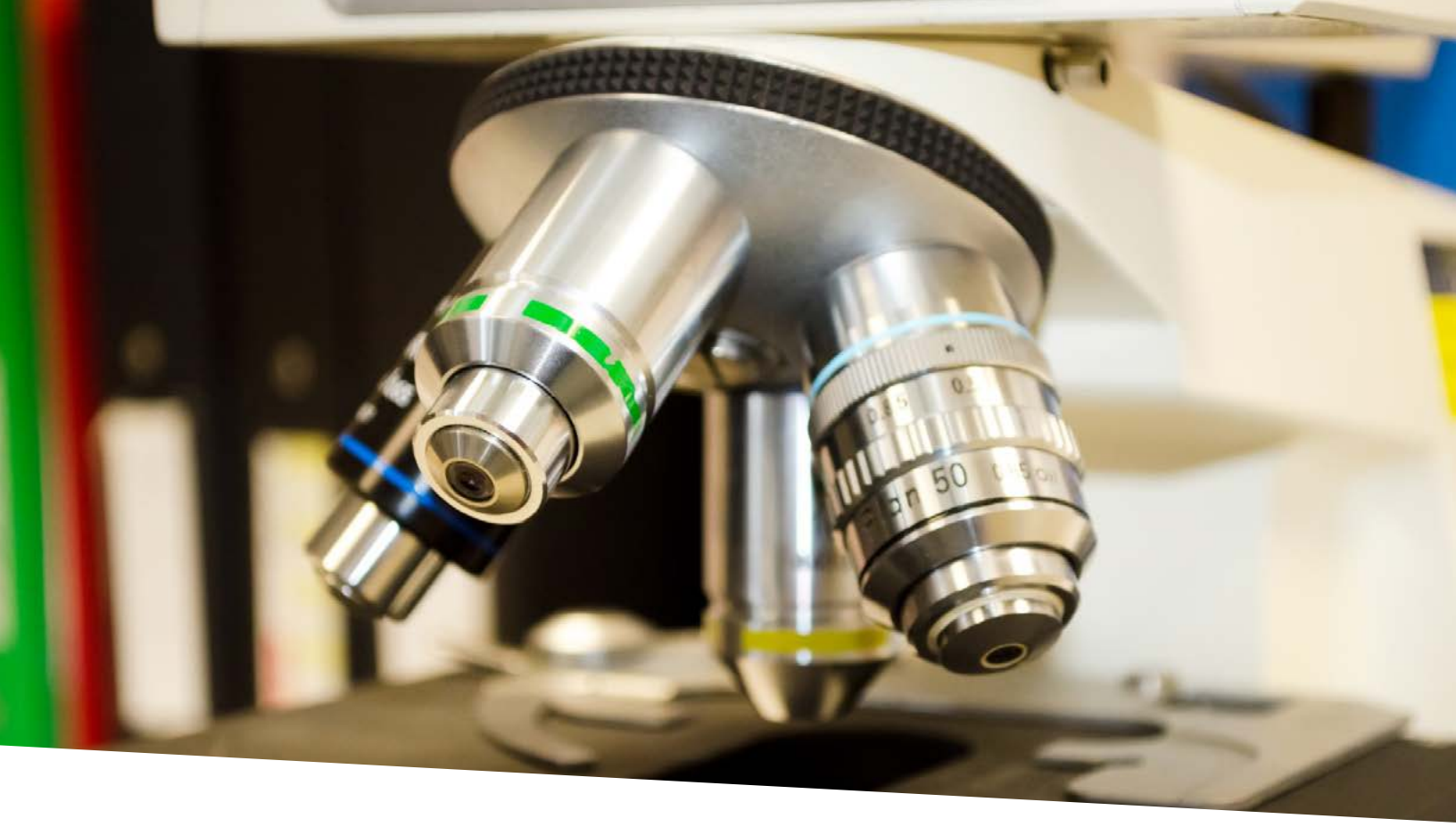


Lack of visibility of the purchase history can also be a time-consuming issue.

If the numbers and figures that integrate all purchases made, approved and being processed, are not updated, it can be impossible to evaluate how much of the budget has been spent and take measures in time if the costs are running too high.

When this data is necessary for an audit, this situation turns into spending great amounts of time organizing and processing everything listed in the records. Basically, a company that cannot easily access updated records lacks the knowledge necessary to effectively control purchasing decisions and their outcome. A lack of visibility in procurement can be extremely time-consuming and easily lead to consuming the whole budget before the project is done.

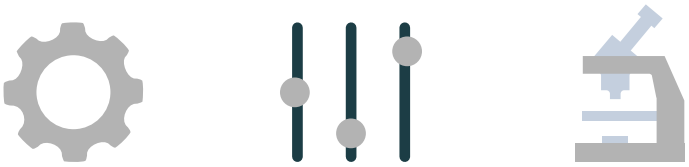
E-procurement

An effective option to upgrade procurement consists in hosting the whole purchasing process online. E-procurement can significantly reduce the time to process an order from start to end and help keep updated records of everything an organization purchases over time.

The advantages of an e-procurement system are many, but selecting the appropriate tool is key to meeting the specific needs of each company or institution. Procurement software is often costly, and many make the mistake of buying the technology without first ensuring it fits their individual needs. The wrong system can actually obstruct the purchasing workflow and consume high amounts of time and resources.

Automation

E-procurement systems provide the advantage of supporting the automation of purchase orders. This is particularly useful in biotech R&D, where periodically recurring purchases for media, reagents, antibodies and other consumables from a given provider are extremely common.



Usually, orders for a laboratory dealing with biological materials are complex and highly detailed. Automation can ease the process for future purchases of the same items and facilitate the addition of new ones. As a result, the whole payment cycle can be significantly reduced.

"With procurify there's complete automation. It's a huge time-saver."

Tai Nguyen, J. Craig Venter Institute

Visibility

E-procurement can easily keep all purchase records visible and updated. First of all, this enables all members of staff to check the status of a specific order online without contacting those in charge of purchasing via email or calls. When dealing with time-sensitive experiments, tracking purchase orders is essential to ensure the success of the project.

Secondly, an easily visible and accurately updated record is always ready for reporting, whether for an audit or an investor. Obtaining reports with a few clicks is definitely a time saver as opposed to manually checking paper reports or excel sheets.

"We had an ISO audit this year and [the auditor] was astonished, he just loved it. He said he's gonna recommend Procurify to everyone."

Bada Demaria, Operations Specialist at InSphero.

Cost reduction

An e-procurement system can help a company easily track what, who, when and where a purchase is made. The analysis of this data can answer questions relevant for the optimization of the purchasing activity of a certain laboratory or department: "What do we buy the most of? What do we spend the most on?" Identifying patterns in purchasing can help predict future expenses and identify opportunities for reducing costs, for example by ordering in bulk from fewer vendors and negotiating more favorable prices with them.

Simplicity

E-procurement software can automate and streamline the complete procurement process, making it simple from end to end. By processing orders directly on specialized software, all information concerning placing, approving, receiving and billing an order can be automatically filed, making it really easy to track and display all the data collected over time.

This information can then be effortlessly extracted for reporting. Besides reducing the headache of audits and reports, easy access to the records can help track key indicators to understand the purchasing culture of a certain company or institution and optimize its future purchasing activities.

"Procurify is very user-friendly and really, really simple. You can purchase 60 bottles of horse media in 5 clicks. It's just like Amazon, basically. You just find the product and you click and purchase."

Bada Demaria, Operations Specialist at InSphero.

Finally, e-procurement can also reduce long training periods and the low compliance associated with other procurement systems. Among the many systems out there, Procurify has a unique plug and play format that lets staff from all departments use it. Different users can be assigned different levels of control, so that only those with the corresponding permission can approve purchase requests and make the final decisions when submitting a purchase order.

Conclusion

An effective procurement system is essential for biotech, where costs and time are essential elements for the success of a project. An e-procurement system can be a huge time-saver and optimize the delicate process of fund management and tight reporting that are often required in this field. Among the multiple options available, Procurify provides a completely automated tool that can deal with complexity while making the workflow management simple and easy.

FIND OUT MORE

Sources

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