



WORD OF LAW BY ROBERT PIASENTIN AND ANIKA KLASSEN

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A primer for integrating automation technology

The manufacturing technology landscape has evolved drastically over recent decades. As we enter the fourth industrial revolution, assessing the various technologies available and identifying those best suited for your business can be a daunting task. In recent years, innovation in automation technology (AT) has burgeoned and, with a healthy push from changes caused by the COVID-19 pandemic, has resulted in a significant acceleration in AT adoption.

Thoughtfully integrating technology can help streamline operations, improve output quality and cut costs, all of which can lead to competitive industry positioning and profit maximization. Conversely, rushed or ill-conceived integration can lead to inefficiencies, material cost increases and operational headaches for management.

Articulating your current goals and needs

The first step in integrating manufacturing technology is to determine what motivates your pursuit of automation. AT can help your business by improving quality control, enhancing scalability, improving speed to market, lowering operational costs, improving safety, or some combination of each. Clearly articulating your goals and needs for automating early in your analysis will enable you to focus your pursuit towards AT that maximizes efficiency and profitability within your business systems.

Considering your future needs

In the automation space, data analytics is indispensable and leveraging data-driven solutions is imperative. Proactive identification of process improvement opportunities as well as scalable data analytic tools and their respective license offerings are integral to securing and maintaining



competitive industry positioning.

Demand for sustainability and energy efficiency throughout the manufacturing supply chain is another important AT integration consideration. Environmentally unsustainable and inefficient energy practices can both derail any material cost-savings arising from AT investments and contribute to negative consumer perceptions of your business. Climate-focused initiatives and increased consumer pressures to incorporate sustainable practices are compelling manufacturing companies to adopt environmentally sustainable automation processes. Early adoption of sustainable and environmentally sensitive AT can yield competitive advantages by reinforcing consumer loyalty, decreasing operating costs and minimizing future regulatory compliance costs.

Negotiating a licensing agreement

Before committing to an AT vendor, it is paramount that your licensing agreement accurately authorizes your intended use of the technology. Licenses will often contain limitations on the duration or scope of the license, number of licensed users and locations for permitted use. Some limitations may be agreeable, but it is critical to ensure that prescribed limitations do not impede the execution of your

business plan. For instance, if your affiliate companies need to use your AT, you must ensure the license does not impose significant additional costs or blanket prohibitions on such use. Relatedly, it is prudent to understand all applicable licensing fees (per user, monthly, per transaction, etc.) and how changes in vendor fee structures can affect your bottom line.

It is also crucial to understand whether the license grants ownership of any copyright, patent or other intellectual property rights associated with production outputs to the technology vendor. For example, if by using AT you are able to develop a more effective means for manufacturing or delivering your products and services, you will want to preserve commercialization and use rights under license terms that reflect those requirements adequately. Accordingly, it is important to verify that such developments do not immediately become vendor property requiring an additional fee to use them. Neglecting to consider ownership terms at the outset of an AT licensing relationship may result in costly litigation, inability to profit from innovation and missed market-penetration opportunities.

Understanding cybersecurity risks

Adopting any form of modern

technology poses cybersecurity risks. Malicious actors frequently take advantage of vulnerabilities in operational technology (OT) ecosystems, the networks of hardware and software that enable manufacturing equipment and processes to operate efficiently. As these actors develop more sophisticated attack strategies, OT networks are often slow to or fail to adopt corresponding defences. Traditional information technology defence strategies and regulatory responses to cyber-threats are often unsuitable for OT networks. For instance, OT devices may lack the programming sophistication to enact precautionary measures such as encryption as a first line of defence. Moreover, OT ecosystems that rely on multiple AT vendors have heightened cybersecurity risks because of the increased scope of infrastructure exposure to malicious actors. Each AT product must have its own cybersecurity protocols while working cohesively within the ecosystem. Simply assuming that various technologies are secure and can securely interact is a dangerous game.

There are abundant opportunities for manufacturing businesses to leverage AT for improved operational efficiency and profit maximization. However, it is easy to fall into the trap of licensing or acquiring AT simply because others are taking that approach. AT specifically tailored to your business needs can certainly help you achieve your business goals when you have thoughtfully and carefully considered and identified your short-, medium- and long-term goals, surveyed available AT options and negotiated appropriate AT licensing terms. Like any technology, AT has the potential to grow your business and yield efficiencies, but AT cannot overcome a lack of preparation or analysis with respect to your business needs and requirements. | **MA**