

Battery-Driven Organizational Transformation -

Embracing the battery technology to drive innovation, sustainability, and strategic differentiation

The potential of batteries as the ultimate driver for modern company transformations

From smartphones to laptops to power drills or electric vehicles, the battery has emerged as the essential source of power across various industries and applications. This shift has opened up exciting new possibilities for product differentiation and market fit, ranging from enhanced performance to unique sustainability approaches, to brand reputation. The battery and its management systems, the BMS, have even prompted the rethinking of conventional business models, such as generating new services based on usage data such as e.g.: innovative fleet management.

However, while these opportunities hold immense potential, the fact that a complex technology - which the battery is - becomes one of the key components of your product, also brings disruptive forces that can greatly stress organizations. Companies must deal with a highly dynamic supply chain, scarce talent, tons of new regulations, and enormous pressure on the development timelines. In the battery field, you are always late - by default!

The magnitude of this stress on an organization, on all levels, can be compared to the transformative impact of digitalization, which has driven both triumphs and failures among companies over the last decades. The battery technology will play no less of a crucial role in the success for companies with a battery in their product. This stress can be felt throughout all levels of the organization, particularly affecting leadership and management.

With the battery taking a central role in corporate strategy, executives must acquire knowledge about the technology and related market dynamics. They must be proficient at swiftly assessing and evaluating new innovative solutions and translating them into impact on business strategy.

We believe that the time of strategists with superficial technical understanding has come to an end and that a new era of technologists with strong strategic acumen is dawning! This article aims to equip leaders with a framework to embrace battery-driven organizational transformations to unleash the power of battery technology for competitive advantages of their corporations.



Figure 1. The challenges and opportunities of battery technology as a new success criteria.

New value creation through batteries

The integration of batteries into various industries, such as automotive and power tools, has unleashed a new way of value creation. Beyond just serving as power sources, batteries have become pivotal elements shaping product performance, brand reputation, and overall business strategy. This transformative impact extends beyond the physical realm of products and gives rise to new opportunities from expanding into the battery value chain downstream, e.g.: manufacturing at the pack or even cell level and upstream with the exploration of new service-based business models that leverage data generated by the battery pack. An additional value driver will also be the various end-of-life scenarios, these could relate to strategic access to minerals via direct recycling, or additional value generation through second-life applications of used battery modules/packs.

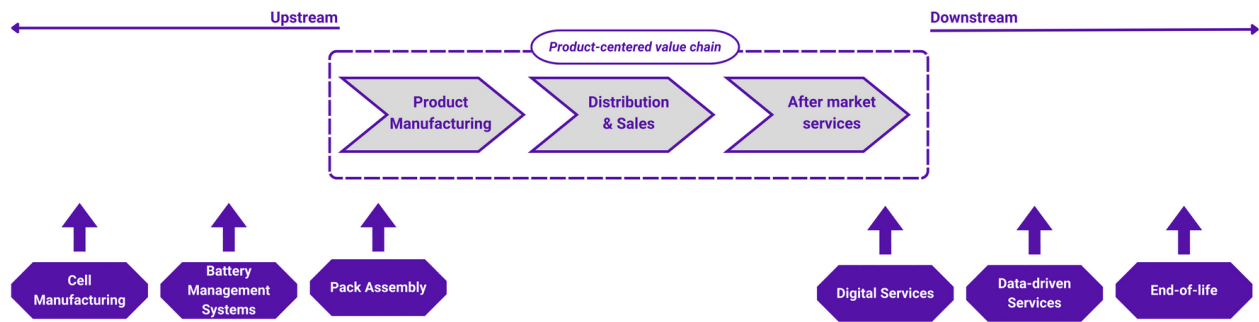


Figure 2. New opportunities created by the battery along the battery value chain.

Moreover, the data generated by batteries offers a profound understanding of customer behavior, preferences, and product usage patterns. This insight not only enables companies to tailor their offerings more precisely but also opens avenues for innovative service models. However, amidst this potential, there lies a challenge: the curse of missed opportunities for those companies that fail to recognize the full scope and influence of battery technology on their strategy and operations.

Avoiding the curse of missed opportunities

Not surprisingly, many companies fail to comprehend the considerable impact batteries have on their product performance, brand reputation, and eventually their strategy. Businesses ill-equipped, risk falling behind their competitors. The early identifiers for a “sinking ship” are e.g.: first and foremost a lack of understanding of the technology as well as slow decision-making, the underutilization of batteries as innovation drivers and product differentiators, and a disproportionate focus on other product components.

These visible pain points are merely symptoms of an underlying issue – the failure to recognize the critical influence of battery technology on the overarching business strategy and the necessity of a comprehensive organizational transformation. The failure to address these root causes carries significant risks, including the loss of technological leadership, market share, and, ultimately, relevance. Drawing parallels to the drastic consequences faced by companies that overlooked the impact of digital transformation is tempting. No worries, we will not try to create yet another Kodak analogy.

OEMs surge ahead by implementing holistic organizational transformations centered on batteries

OEMs have emerged as frontrunners by recognizing the paramount importance of swift adaptation to evolving battery technologies. Going beyond the mere production of electric vehicles, some of the leading automotive companies (by all means not all of them) have strategically reshaped their entire organizational frameworks around the significant influence of batteries. One notable manifestation of this holistic approach can be observed in the vertical integration of OEMs with battery cell manufacturers, solidifying their position at the forefront of the electrification wave. Additionally, OEMs have embarked on comprehensive talent acquisition initiatives, seeking out the brightest minds in the field of battery technology. As a side effect, this has, unfortunately, led to a battery talent drought for other industries, especially in Europe.

These large and speedy transformations, however, have not been without some discomfort for OEMs. Long accustomed to relatively stable and predictable market dynamics, they find themselves, over the course of a very short time, in a fast-paced and ever-evolving market where a lot of their highly optimized capabilities are obsolete. Yet, this paradigm shift in focus is undeniably necessary, as the electric vehicle landscape continues its accelerated trajectory. Remarkably, OEMs are not alone in recognizing the significance of early adaptation to new battery technology. Companies outside the automotive realm, such as the Power Tool Company TTI with its prominent Milwaukee brand, have seized the opportunities presented by emerging battery technologies.

Their anticipatory decision to invest in cordless power tools, and the required organizational transformation centered on battery technology ahead of competitors, has put the company at the forefront of battery technology leadership – a triumph reflected in the company’s booming revenues and soaring stock prices. Stephan Horst Pudwill, Vice Chairman and Executive Director of TTI, even believes that the understanding of the chemical composition of a battery should be an integral part of boardroom discussions: **“We need to be hands-on; we are the biggest stakeholder. We gain the most and would lose the most if we lose.”**



Source: Jocelyn Tam. (2021, February 24). **Power Player: Billionaire’s Bold Bets During The Pandemic Paid Off Big.** *Forbes.com.*

The lessons gleaned from these pioneering OEMs and forward-thinking entities provide valuable insights into the transformative power of battery-centric organizational strategies. As this exciting era of electrification unfolds, it is clear that those who align their organizations with the potential of batteries will harness the true value creation that lies ahead.

This recognition serves as a gateway to unlocking untapped possibilities and seizing new market opportunities. The benefits of embracing batteries as a central catalyst extend far beyond product development alone; it fosters the cultivation of impactful collaborations and strategic partnerships with key players in the industry, augmenting both organizational networks and knowledge exchange.

Introducing the BDO framework and how it can help you align your operating model to become battery-driven

Achieving seamless alignment between battery innovation, business strategies, and existing business operations requires a framework that defines a holistic battery strategy to navigate battery-related challenges and capitalize on the potential opportunities to create additional value eventually.

Recognizing this imperative, Sphere Energy has developed a framework designed to guide organizations on their transformative journey toward becoming a Battery-Driven Organization (BDO). This comprehensive BDO framework offers a robust methodology dedicated to unraveling the complexities of an organization’s current structure while challenging conventional norms. It looks to foster the concept of a business mentality open for changes when needed.

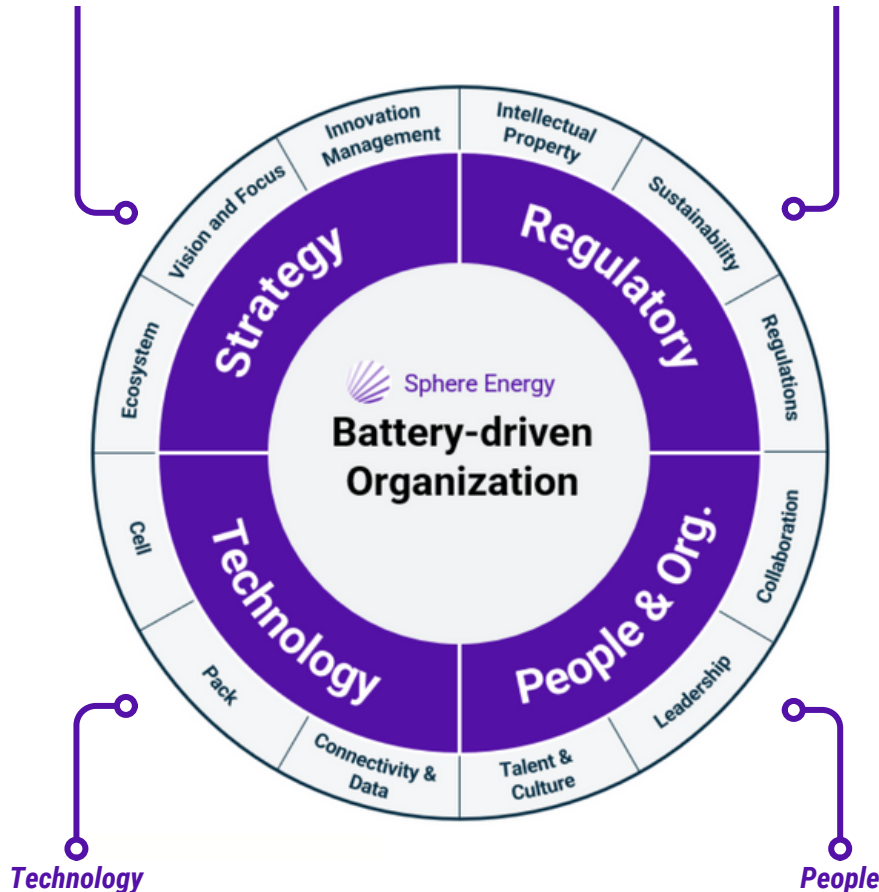
At the heart of our framework lies the ability to craft a transformational strategy that centralizes the battery technology throughout the organization. Certainly, each component of the Battery Driven Organization (BDO) framework - strategy, technology, regulations, and people - plays an essential and interconnected role in driving the successful transformation of companies within the battery field.

Strategy

A well-defined strategy serves as the guiding North Star for an organization. Embracing battery technology as a core element of the strategy is paramount. Batteries are not just energy storage devices; they are the new power source of your products! Incorporating battery-centric objectives into the strategic vision empowers the organization to align its goals, resources, and initiatives with the profound impact of battery technology.

Regulatory

Navigating the complex landscape of regulations and standards is pivotal in the battery industry. Battery-driven transformations must address regulatory compliance as a foundational principle. Batteries are subject to stringent safety, environmental, and quality regulations, which vary across jurisdictions. Integrating regulatory considerations into the BDO framework ensures that innovations align with legal requirements and industry standards.



Technology

In the heart of the battery-driven transformation lies technology - the driving force that propels innovation and competitiveness. Battery advancements not only dictate product performance but also influence entire value chains, shaping how products are developed, manufactured, and maintained. But beyond the physical capabilities of batteries, its true impact lies in the data it generates. Achieving a high level of connectivity among devices and internal units alike is crucial in the BDO. Especially with the emergence of Generative Artificial Intelligence (AI), offering a revolutionary approach to leveraging data, the BDO framework can deliver transformative power to not only enhance the product development speed but also pave the way for adaptive, data-driven business models.

People

At the heart of every successful transformation are the people who drive it - the employees, stakeholders, and partners. Empowering individuals with the knowledge, skills, and enthusiasm to embrace battery technology is pivotal. Building a culture of continuous learning, innovation, and collaboration ensures that the workforce is aligned with the organization's battery-focused vision. Effective change management and communication strategies nurture a sense of purpose, engage teams, and foster ownership of the transformation process. Ultimately, people are the enablers who translate the strategic vision into tangible outcomes, championing innovation, and embedding the battery-driven ethos into the organization's DNA.

In summary, the Battery Driven Organization (BDO) framework encapsulates the holistic nature of the battery-driven transformation journey. Strategy provides direction, technology ignites innovation, regulatory compliance ensures integrity, and people power the engine of change. These components are intricately interwoven, reinforcing one another to create a unified and coherent approach. By embracing BDO, companies unlock the full potential of battery technology, positioning themselves as leaders in a rapidly evolving landscape, and driving sustainable growth while contributing to a greener and more energy-efficient future.

As we first start, to embark on this transformative journey, we propose these five crucial steps:



Figure 3. The journey towards a battery-driven organization.

Step 1: Define your battery strategy based on your brand's positioning

Begin by aligning your battery strategy with your brand's core values and positioning. How are you currently perceived in the market as a company, and what values do your products or services stand for? How does this change with the battery technology? Articulate a clear vision for your organization's role in the battery revolution. Determine how battery technology can amplify your brand's mission and don't forget to contribute to the broader sustainability goals of the industry.

Step 2: Identify new value drivers, resulting from the battery technology

Explore the unique value propositions that battery technology can offer. Identify how it can reshape your product offerings, enhance customer experiences, and open doors to novel business models. One fundamental question here is, how deeply do you vertically integrate into this new technology? Embrace innovation and envision how batteries can become a catalyst for differentiation in the market.

Step 3: Identify current roadblocks and key organizational challenges

Be honest with yourself! Acknowledge the existing roadblocks and challenges that might hinder the transformation process. This could involve legacy processes, cultural inertia, or outdated mindsets - as well as a lack of understanding of this complex technology. A comprehensive assessment of these obstacles is vital for effective planning and execution.

Step 4: Map out the existing skillsets of your teams and talents

Your organization probably wasn't built around battery technology. Hence, it is important to evaluate the skills and expertise of your current workforce. Recognize the strengths that can be leveraged and identify areas where upskilling or reskilling might be necessary to align with the demands of the evolving battery landscape.

Step 5: Form a core transformation team and initiate projects

As a vital bridge between vision and execution, Step 5 takes center stage. First, undertake a meticulous gap analysis, charting the course from your present state to the envisioned battery-driven future. Next, assemble a dynamic and passionate core transformation team – individuals who are ignited by this technology and possess the prowess to propel the organization's momentum toward battery-driven excellence. By channeling this team's energy, you create the driving force that fuels your transformation. Prioritizing is paramount. Identify the most influential actions capable of propelling your organization forward swiftly. These initial steps hold the potential to set the foundation for lasting change. As you launch, instill motivation and enthusiasm that resonates across your organization, dispelling any doubts and forging a collective spirit. Remember, as the flames of transformation take hold, your core team ignites a wildfire of innovation, lighting the path toward an electrifying battery-driven future.

Incorporating these five steps into your organizational strategy sets the stage for a successful transition to becoming a battery-driven company. By defining your battery strategy, identifying new value drivers, addressing challenges, enhancing skills, and taking focused actions, you empower your organization to not only adapt but thrive in the rapidly evolving battery ecosystem.

As you embark on this transformative journey, remember that flexibility, adaptability, and a commitment to continuous learning will be essential. The battery field presents an exciting frontier of possibilities, and by embracing change, you position your organization as a key player in shaping the future of battery-powered technology.

The decision to undergo this transformation does not mean that other success criteria are left behind and the BDO framework replaces all other strategies in place - such as initiatives to leverage the full power of data, for example. On the contrary, the implications of this assessment shall be leveraged as the force that drives other transformations. This approach emphasizes the power of this exciting technology for entire organizations - which is demanded to leverage the battery to win!

Ready to embrace the future of batteries in your organization? Start your journey towards becoming a Battery-Driven Organization (BDO) by engaging in an initiation workshop with Sphere Energy.

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Contact us to find out more:

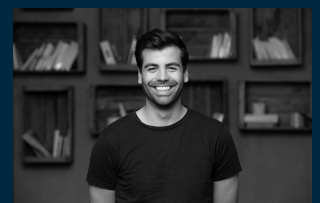
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