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Harnessing advanced technology ecosystems

A strategic approach to commodities markets

The landscape of commodity markets is a complex one, typically filled with potential yet fraught with challenges such as opaque data, physical flow impediments, and financial risks. Navigating this ever-changing landscape likely requires a delicate balance of risk and opportunity management.

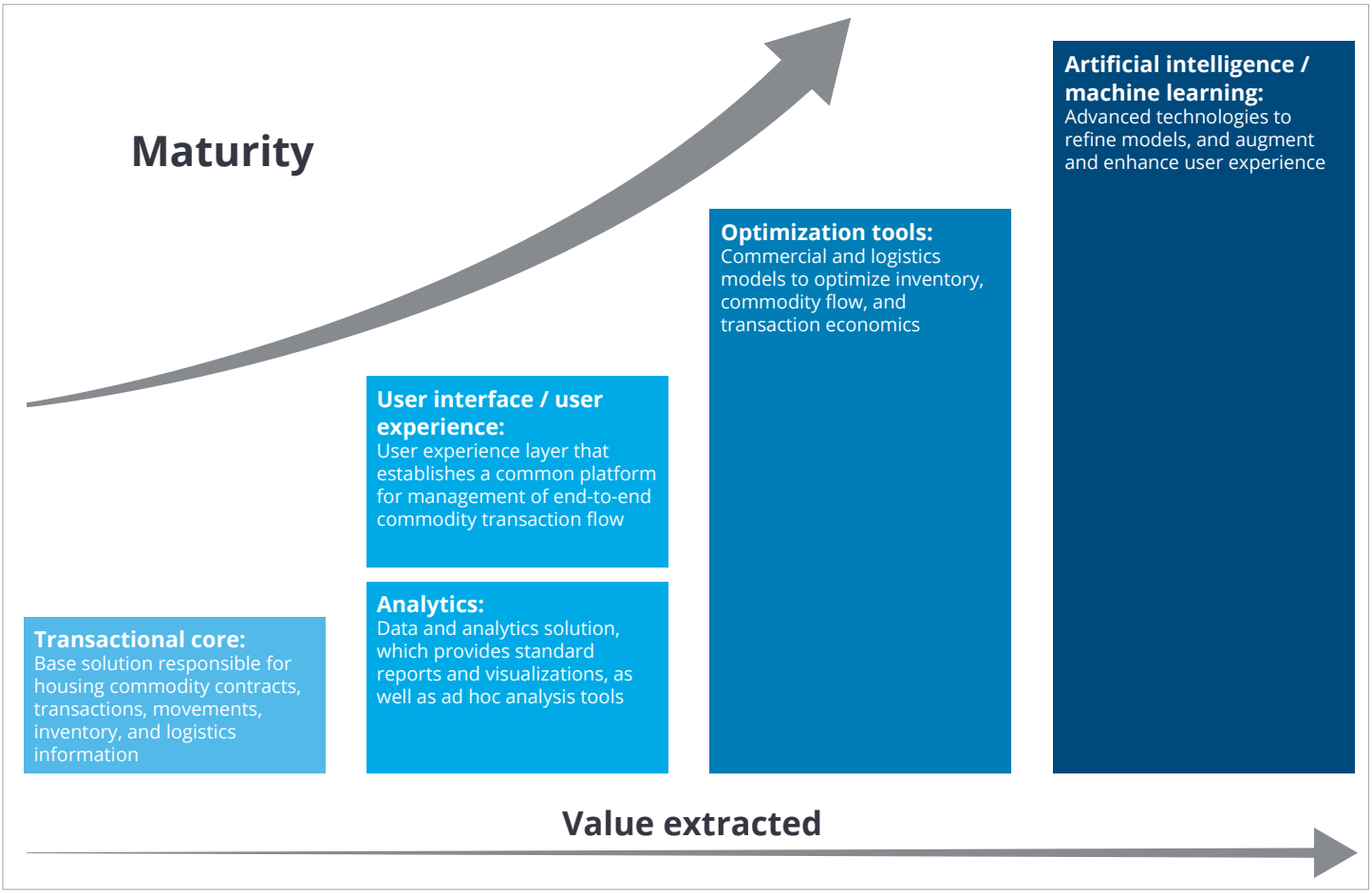
Inadequate operating models, siloed structures, and subpar data quality could pose hurdles for many organizations. These issues could obscure visibility into vital operational details and impede effective decision-making processes. Additionally, the absence of broad processes and financial controls could further limit risk mitigation opportunities.

Nonetheless, overcoming these challenges can lead to substantial benefits. Enhanced financial performance, improved cost of capital, reduction in costs, and stronger governance and control lie within reach for organizations that effectively address these issues.

Capturing these benefits may require a shift toward integrated operations underpinned by innovative digital solutions. While many organizations invest in commodity trading & risk management (CTRM) and enterprise resource planning (ERP) solutions, these alone may not suffice to extract greater value. Progressive organizations often build upon these systems to derive additional value from their integrated commodity value chain.

With an effective blend of common platforms and best of breed solutions, organizations can navigate the hurdles, harness opportunities, and boost overall performance.

Figure 1. Trading ecosystem capability maturity curve



The five cornerstones of advanced Commodity Trading & Risk Management Ecosystems

This approach is anchored by five cornerstones that can help form the foundation for improved decision-making across the commodity value chain:

1. **Transactional core:** This foundational system houses commodity transactions, contracts, and transportation and storage agreements, as well as master and reference data, enabling its consumption by upstream and downstream systems.

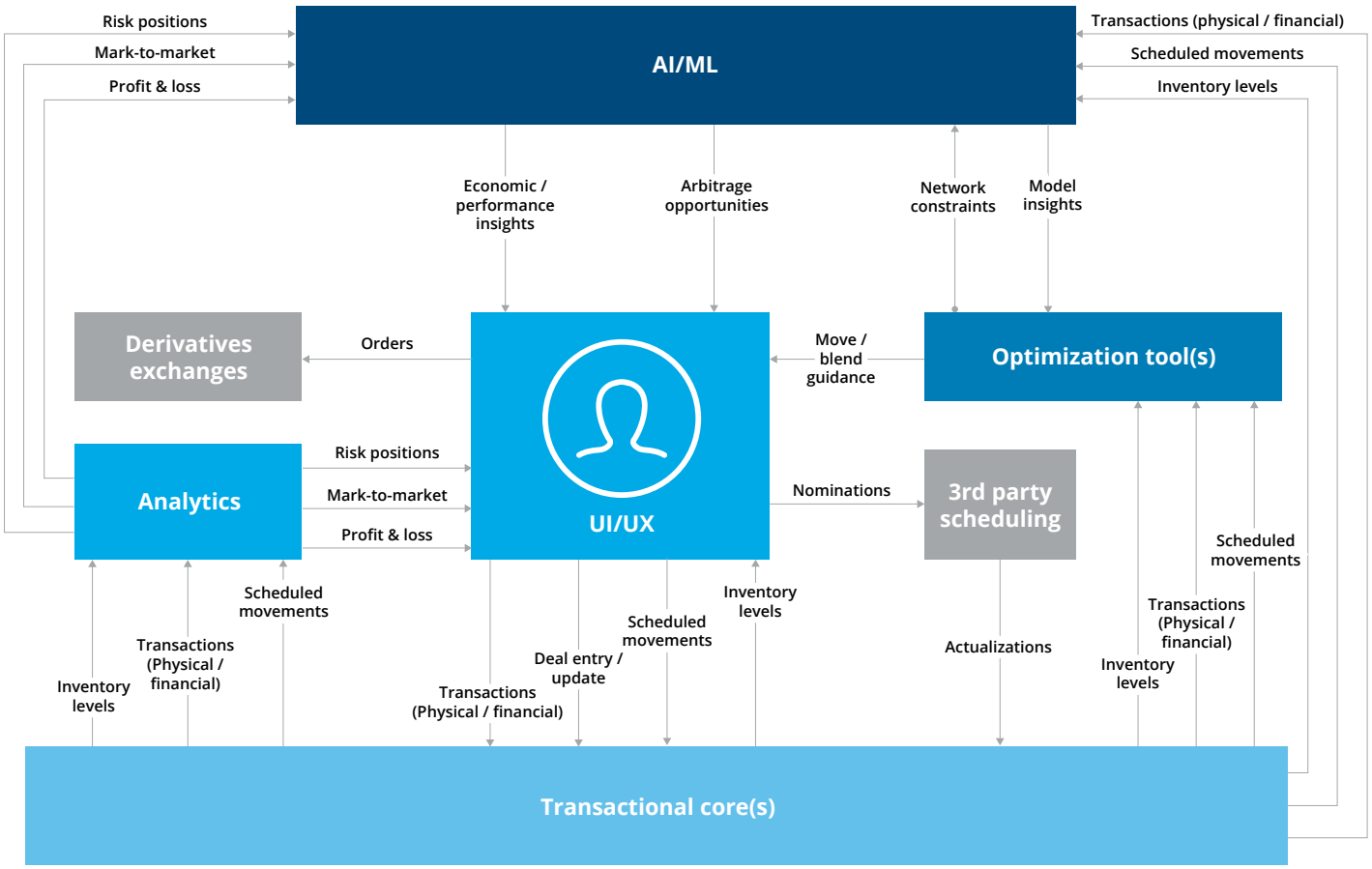
2. **Integrated user interface/user experience (UI/UX) platform:** Serving as a central hub for decision support, it can enable effective execution of planning, trading, scheduling, and hedging activities, promoting data consistency and reducing the risk of errors or oversights.

3. **Advanced analytic capabilities:** Providing a clear, broad view of operations, these capabilities help extract insights from vast amounts of data across the integrated value chain.

4. **Optimization tools:** Helping process complex network options and constraints, these tools offer plans that can increase revenue, reduce costs, and enable supply chain resiliency.

5. **Artificial intelligence/ machine learning (AI/ML):** Augmenting these capabilities by predicting future constraints, identifying new opportunities, and learning from past decisions to continually improve and evolve.

Figure 2. Illustrative next-gen trading ecosystem



Architecture strategy

Finding a balance between common platforms and “best of breed” solutions

Transitioning to an advanced trading ecosystem demands thoughtful choices around the IT infrastructure. Each organization’s architecture should be uniquely tailored to its overarching strategy, current technology stack, future goals, and the balance between customization and standardization.

In general, a spectrum of architecture options exists between the use of a fully common platform and a fully “best of breed” solution.

Common platform

A common platform approach offers the benefit of a uniform data model across the organization, promoting consistency and simplifying data management. It also streamlines the information technology (IT) landscape for ongoing support and maintenance, potentially lowering long-term operational costs. However, such an approach comes with its own set of challenges: users may need to adapt their processes and activities to fit the platform, which could be particularly challenging across different commodity classes and trading strategies. Furthermore, the up-front design and implementation may be more intensive than other options, due to the required harmonization of processes and data.

Best of breed

On the other end of the spectrum, a best of breed approach provides bespoke solutions that can be tailored to individual business circumstances. This offers a high degree of flexibility, and the up-front implementation can be lighter as solutions address a subset of the universe of requirements, allowing for quicker deployment and lower initial costs. Despite these benefits, the best of breed approach also has drawbacks. It is incumbent on the organization to govern and manage a broad ecosystem of applications, which can be complex and resource intensive. The technical integration requirements are likely to increase, potentially leading to higher costs and complexity. A particular focus is required to provide visibility across the value chain that is not siloed—which is crucial to avoid data fragmentation and maintain operational cohesion.

Organizations typically embrace a hybrid model between these two poles, leveraging a common platform as the central IT architecture while incorporating specialized solutions for specific functions. This model strikes a balance between a common platform approach, where one system serves most functionalities, and a best of breed approach, where different systems are chosen for each functionality based on their superiority in specific areas.

Whether leaning toward a common platform or a best of breed architecture, the challenge is to integrate these systems effectively so they work harmoniously together. This strategic choice along the spectrum of a common platform to best of breed solutions can significantly impact an organization's agility, flexibility, and ability to innovate, making it a critical consideration in the journey toward a next-generation trading ecosystem.

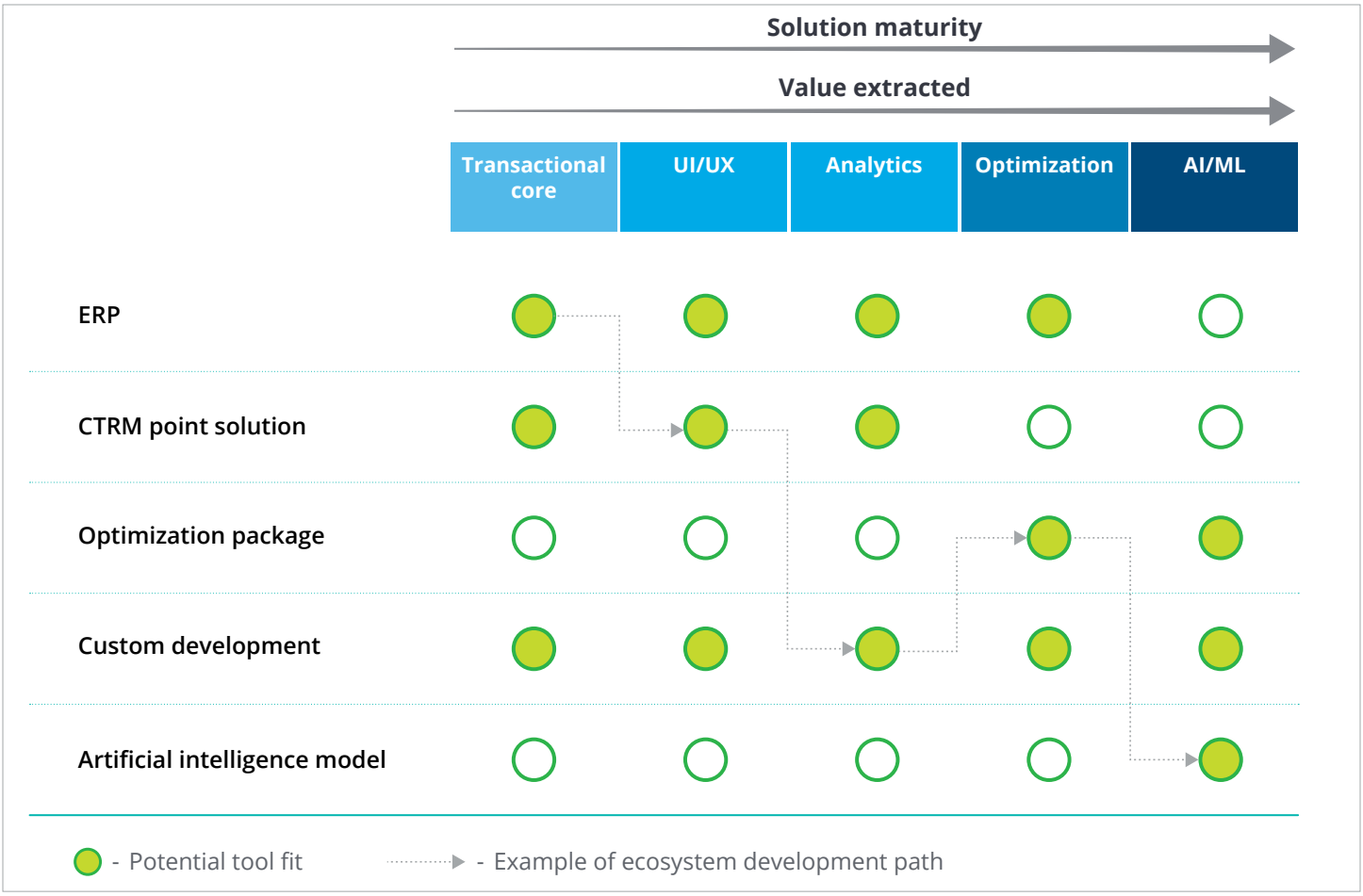
By implementing these cornerstones and striking an effective balance in their IT strategy, organizations can navigate the complexities of the commodity market, unlock latent value, and effectively capitalize on commodity flow.

Investment in advanced technology ecosystems is a critical move for organizations seeking to outpace their competitors in the commodities industry. This approach can unlock value in their asset networks and enable agility in a rapidly changing market landscape.

Embracing the future of commodity markets

The strategic embrace of advanced technology ecosystems is a crucial differentiator in the complex world of commodity markets. With an effective blend of common platforms and best of breed solutions, organizations can navigate the hurdles, harness opportunities, and boost overall performance. This strategic shift could bring adaptability, resilience, and competitive advantage to a continuously changing commodities environment.

Figure 3. Sample of the solution path flexibility



Let's talk!

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