

MULTI-COMMODITY ETRM'S ARE BECOMING TOO  
EXPENSIVE TO IMPLEMENT, AND MAINTAIN  
**SO WHAT'S THE SOLUTION?**



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# INTRODUCTION

**Since ETRM software was first introduced around 20-years ago, developers have continually sought to move from developing solutions designed to support specific commodities such as crude oil, natural gas, and electric power, to building solutions that catered for multiple energy commodities. In part, their objective was to reduce costs – specifically integration costs, but without a doubt, part of the objective was self-serving, as this also allowed them to broaden the appeal of their software to a larger and more lucrative market.**

Unfortunately, the goal of a multi-commodity ETRM has remained elusive (and perhaps undesirable) such that only those willing to throw vast sums of money at building such a solution have managed to get even close to it. Much of the problem they face lies in the fact that each physical commodity is remarkably different and has a different supply chain encompassing different types of assets and operations along it. It is virtually impossible to design a solution that can accommodate the vast array of supply chains, commercial processes and physical characteristics of each commodity while also delivering efficient deal capture, position management, real-time reporting and front to back office integration. Many have tried but few, if any, have succeeded. As trades have become increasingly innovative and specialized, often with bespoke terms, it has become increasingly difficult to satisfy all requirements across multiple commodities in a single solution.

The goal of building an all-encompassing ETRM becomes even harder to achieve in recent years as the requirements of these have also changed and grown

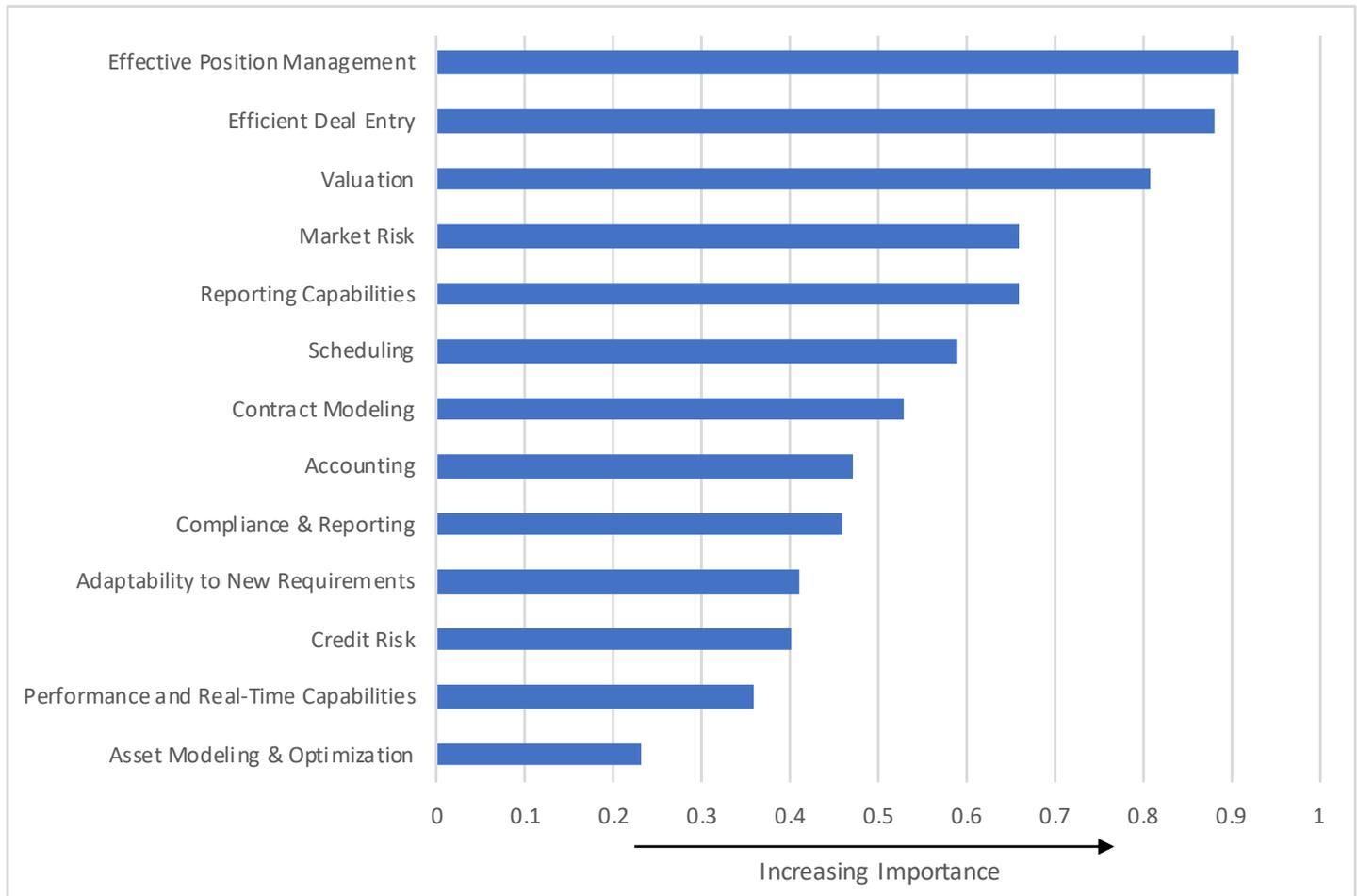
substantially – reflecting the changes in the industries and markets they serve. Now, for example, issues such as auditability and regulatory reporting of trades across multiple jurisdictions, have become mandatory, increasing the functional burdens placed on these system as they are deployed across any number of countries around the globe. Despite these complexities, and the issues they have created for both software vendors and users alike, recent surveys of the industry continue to show that multi-commodity capabilities are still deemed to be somewhat important by many end users (Figure 1 – Note – about 25% of the respondents were oil & gas companies and 75% were energy commodity focused<sup>1</sup>). Physical commodity support is the most important buying criteria amongst buyers of commodity systems.

Meanwhile, continuous research around satisfaction rates<sup>2</sup> also indicates that many end users continue to be disappointed by the lack of depth of functionality provided in commercially available ETRM solutions for specific physical commodities like crude oil, for example. Figure 1 also shows that the surveyed users single

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<sup>1</sup> Vendor Perception Study, 2016, Commodity Technology Advisory, LLC

<sup>2</sup> Commodity Technology bi-annual Vendor Perception reports

**Figure 1: Buyer Criteria (ComTech Vendor Perception Study, 2016 – 155 Respondents)**

most important buying criteria isn't multi-commodity capabilities, rather it's having sufficient depth and breadth of functionality that address the wide-ranging complexities associated with the physical commodity or commodities that they manage, and at a price that they can justify. This need has only grown in recent years as the emphasis has migrated from simply supporting trade capture and position management (and its back-office processes) to a more holistic supply chain requirement that im-

proves visibility into costs and allows operational risks to be better managed. In these days of lower commodity prices, harder to find profits, and increased stakeholder scrutiny, users increasingly need to have deep physical supply chain support in their ETRM solutions. In these days of lower commodity prices, harder to find profits, and increased stakeholder scrutiny, users increasingly need to have deep physical supply chain support in their ETRM solutions.

# THE ETRM CONUNDRUM

Throughout, the twenty-year history of ETRM and CTRM software, the desired “Holy Grail” for many participants in the industry has often been to develop a singular comprehensive solution - one that covers all (or at least the most common) commodities, geographies, supply chains, and assets. While such a solution was seen as providing significant cost benefits, experience has unfortunately shown that building and maintaining such a solution as a singular application is more or less impossible to commercially justify. In a recent white paper<sup>3</sup>, ComTech stated that it *“now believes that a singular, monolithic Commodity Management/CTRM solution that addresses all commodities and markets – is almost certainly impossible to commercially achieve and, frankly, is ultimately not desirable. Rather, the most reasonable approach is an architectural approach – one that combines specific modules or individual products that can address the specific needs of an individual company and the market or markets in which they operate.”*

Among the reasons for taking this position are:

- 1/** Given that many of the physical energy commodities are fundamentally different in terms of their physical states, transportation or transmission modes, commercial processes and requisite physical assets, designing and maintaining a singular monolithic solution becomes commercially unsupportable as those markets change and users' requirements evolve to reflect those changes. In particular, gas, power and liquid hydrocarbon markets have each undergone tremendous change in the last decade however, many of those changes have been regional in nature and user requirements within each of those markets, even for the same commodity, will have great variability.
- 2/** The physical assets involved in the production, processing and transportation/transmission of a physical commodity must be accurately modeled to prop-

erly reflect the commercial processes involved in marketing or trading of the commodity. These complex requirements are difficult to model and maintain in a singular commodity-specific solution, and the complexities increase exponentially (and may in fact may create functional conflicts within the system) as additional commodities are “shoe horned” into the mix.

- 3/** Experience has demonstrated that no purportedly multi-commodity solution actually provides complete functional support “out of the box” for any given specific physical commodity. These same experiences have shown it is increasingly apparent that a commodity-specific solution will be better able to provide deep and wide functional support for the producers, marketers and traders of that commodity and that commodity's supply chain. Deploying such a dedicated, focused solution can reduce implementation

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<sup>3</sup> CTRM as an Architecture, Commodity Technology Advisory LLC White paper, 2017

costs and effort, and once in production, will usually provide the specific functionality needed to manage the inherent risks in the business and provide the controls, checks and balances increasingly required by market regulators and stakeholders.

Indeed, the result of the search for the multi-commodi-

## CHANGING REQUIREMENTS

**As business conditions and regulatory oversight have changed over the last several years, so too has the vision of the ideal ETRM solution. Market participants - faced with lower commodity prices and increasingly intrusive regulations and shareholder scrutiny – are looking more than ever at costs, exposures, and operational risks.**

Achieving a positive margin in this market is increasingly dependent upon optimizing supply chains and improving efficiencies. Simply put, it's no longer about capturing a trade, settling and invoicing it, but about dealing with complex pricing, accurate hedging, efficient transportation, optimal cost routing, speed of providing required documentation for insurance companies and banks, optimal inventory levels, and so on. Further, in order to address regulatory and stakeholder demands, improved controls, checks and balances are in increasing demand, necessitating additional capabilities such as configurable workflows, comprehensive audit trails and added security of access to sensitive screens and data.

Banks that provide lines of credit and other collateral are insisting on ever more detailed audits and due diligence, drilling specifically into approaches to risk management including operational risks across the

ty solution has only resulted in many cases in long and expensive implementations, a low rate of satisfaction, high maintenance costs as requirements continually change, a continued reliance on spreadsheets and other ad hoc tools to fill in 'gaps', and a low ROI for the original investment in the software.

business and supply chain. They want to see how these risks are managed and they want to see how supply chains, assets, and trade financing, for example, are optimized and controlled. Addressing these demands requires detailed and specific physical commodity functionality of the type not usually found in broad multi-commodity systems.

The management wants to see accurate reporting of the key KPIs (profit, risk, inventory, cash flow) and be able to spot exceptions and anomalies in the business.

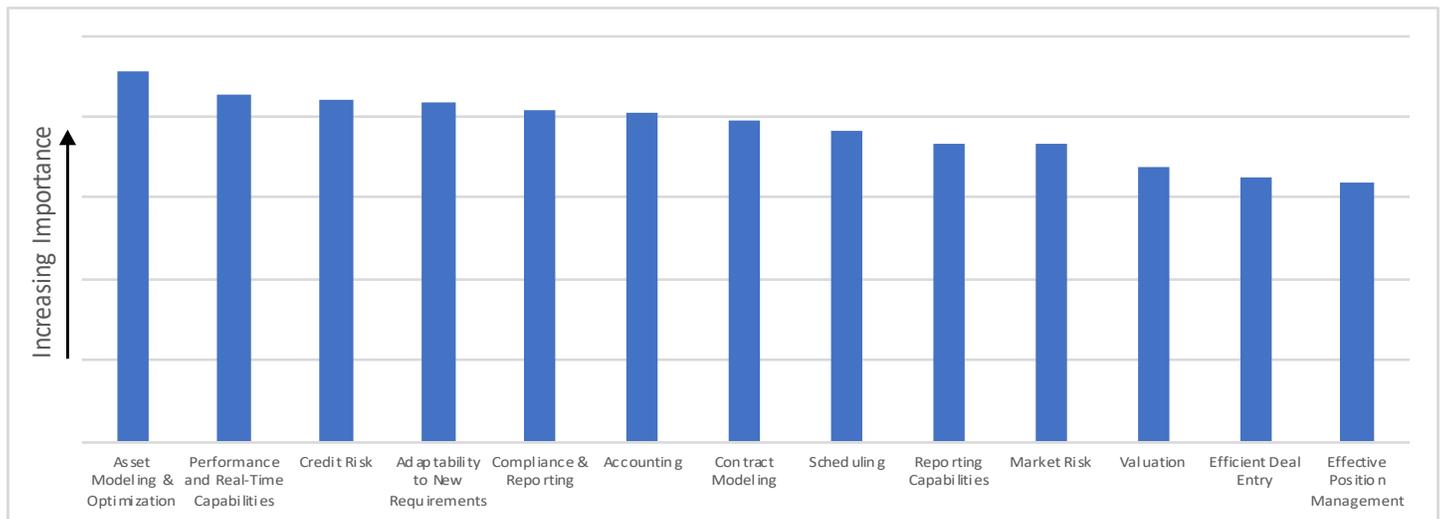
Finally, and perhaps most importantly, to be commercially successful, any system designed for these markets needs to be user-friendly – providing a well thought through user interface that is both intuitive and easy to use, helping reduce data entry and/or interpretation errors and all of this is needed faster (near real-time) and at a reasonable cost.

As a result, ComTech is seeing more procurement of commodity-specific ETRM and CTRM solutions to address the increasingly specific needs of different parts of the business. Of course, this shift in appetite to commodity-specific solutions does require a different approach for cross commodity reporting and reconciliation - business processes that can be performed either in the ERP system or via a reporting overlay. Despite the potential costs or process changes required for such aggregations and reconciliations, the benefits of having commodity-specific capabilities that best fit business requirements more than outweighs

these considerations.

Recently conducted research into how users saw their current ETRM solutions only serves to emphasize the above. While most ETRM's are seen to have adequate trading and risk functionality, other important functions like scheduling, contract modeling and accounting are less than adequate. More importantly, the ability of these solutions to meet new requirements is ranked very low (Figure 2). It is this difficulty in staying a pace of a flood of changes in the industry that is a real challenge for ETRM.

**Figure 2: 125 Global Respondents Rank the Functions of their current ETRM solution**



Sometimes, the frustrations faced by buyers has resulted in efforts to build internally. In 2015<sup>4</sup>, ComTech found that 70% of all CTRM software procurers would likely consider the development of a custom solution while a third of all respondents said that they would seriously consider this option. Amongst the most popular reasons cited for wanting to build a CTRM internally were to have total control over functionality

and to avoid generic functionality. However, the same respondents cited the cost and complexity of building their own solution as barriers to doing so and were also, not unsurprisingly, extremely concerned about maintaining a custom developed solution.

While once the future appeared to be about a single monolithic solution, perhaps even custom developed,

<sup>4</sup>E/CTRM Software – To Build or Buy. That is the Question, Commodity Technology Research Report, 2015

it now appears to be much more about specific and appropriate expertise and functionality around specific physical commodities. Despite some inherent challenges in cross-commodity reporting and accounting, this trend towards specific commodity solutions does address the needs of these specific dynamic markets and helps support;

- /Better operational risk management,
- /Optimization of commodity-specific business processes for cost reduction and/or increased efficien-

cies,

- /Improved business controls, check and balances and auditability that improves stakeholder and third-party confidence and trust,
- /Reduced reliance on spreadsheets and other ad hoc tools.
- /Enhanced user satisfaction with solutions that better meet their specific needs and a usable user interface that enhances their experience of using the software.

## TOWARDS A SOLUTION

**As the emphasis for CTRM has shifted away from primarily trade and risk management with invoicing capabilities to a more holistic commodity-specific supply chain focus, a number of approaches to solving these issues have also emerged as follows;**

**1/**ERP solutions have emerged that incorporate trade and risk management as well as other commodity specifics along the supply chain. So-called 'Commodity Management' solutions have become increasingly popular in the last 2-3 years as a result. However, many of these remain deficient on the trade and risk management side requiring supplemental software products be used and, they tend to increase implementation complexity and costs. In some instances, users take the view that it is a more eloquent solution to integrate a CTRM with the ERP solution based on the view that each solves a different problem.

**2/**Conversely, many CTRM vendors have started to add supply chain functionality in an attempt to rebrand their products as commodity management solutions. Again, the issue is that each

supply chain is different (e.g. power trades may be recorded in 15-minute increments while other commodities are daily trades) and, as discussed above, complexity and costs become an issue. Additionally, integration is still required to the ERP/accounting system anyway.

**3/**Many other end user firms have taken the view that it is better to procure commodity-specific solutions that offer the functional support required for the trading, risk and supply chain function on the basis that what they really require is functionality that is specific to the commodities they deal in. This does mean that there are commodity specific CTRM solutions installed and the focus is on consolidation of at the enterprise back office and reporting level which by far is the more cost effective solution.

# INATECH'S TECHOIL – A PHYSICAL OIL TRADING & FINANCE SYSTEM

**In terms of the latter approach, an example of a cost-effective, functionally-rich, commodity-specific ETRM solution is Techoil. Inatech, a Glencore company, has brought a solution to market called Techoil ETRM that is focused on the crude oil and refined products supply chain and commodity management. Techoil ETRM is an integrated, end-to-end cloud software product designed to help companies to streamline trading, hedging, operations, and inventory, credit, cash flow, while also assisting them to manage risk and operate complex integrated supply chains for crude products, distillates, petrochemicals and bunkers. It is a cloud-based solution that can be implemented rapidly and at a lower cost than many traditional ETRM solutions.**

It is an example of a physical commodity and supply chain focused solution that offers the depth and breadth of functionality required to support a complex physical commodity while delivering on features that improve security, trust, and auditability such as sophisticated workflow, an easy to use user interface, controls and audit trailing at an affordable cost to even the smallest of businesses. The solution ticks the boxes of a strong, physical commodity and supply chain solution having,

- /An intuitive user interface with strong workflow integration making it easy to use and with fewer user entry errors,
- /Front to back office integration tracking key items such as profit and costs across the supply chain helping to reconcile trade profit with accounting profit,
- /Significant supply chain focus with an integrated optional ERP accounting module for greater integration across the supply chain.
- /Strong controls and workflow for auditability

Techoil belongs to a new breed of commercially available solutions as it focuses on the entire supply chain

for a specific group of important commodities - not just trading and risk, and it is low cost and fast to implement. Cloud solutions also deliver a number of other benefits that are increasingly being sought by buyers including the ability to switch capital expenses to operating expenses as well as the ability to scale on demand and increased agility.

Inatech's focus on oil and related commodities over the years, backed by the real-world experiences of its client base and owner, means that it has brought to market a highly-focused solution for the trade, movement, operations and accounting for those commodities. As a recent entrant, it has also been afforded the opportunity to build in a modern scalable, cloud-oriented architecture with a highly usable UI and comprehensive attention to workflow and audit requirements. Inatech's solution represents one approach to solving the CTRM conundrum. It offers more in-depth functionality than a multi-commodity solution and is delivered quickly and cost effectively in the cloud. It is a good example of a singular commodity solution approach discussed in this paper.

# ABOUT INATECH

**A global provider of cloud etrm and fuel management software for the physical oil trading and marine industries**

Established in 2002, Inatech is a global provider of intelligent cloud software in Oil Trading and Marine industries. Headquartered in London, UK, Inatech has a global footprint and local presence in USA, UAE, Singapore and India. Inatech is owned by Glencore, one of the world largest commodity traders with more than 180,000 employees in over 50 countries producing and trading more than 90 commodities derived from natural resources. As part of their Oil division, Inatech benefits from the knowledge and expertise of Glencore in oil trading, hedging and management of the entire oil supply chain, helping Inatech to develop best-of-breed cloud technologies for selected industries to enable companies to integrate, automate and

optimise business processes, driving efficiency and revenue growth. Inatech's customers benefit from an international delivery model that provides the competitive edge needed to thrive in today's dynamic markets.

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# ABOUT

## **Commodity Technology Advisory LLC**

Commodity Technology Advisory is the leading analyst organization covering the ETRM and CTRM markets. We provide the invaluable insights into the issues and trends affecting the users and providers of the technologies that are crucial for success in the constantly evolving global commodities markets.

Patrick Reames and Gary Vasey head our team, whose combined 60-plus years in the energy and commodities markets, provides depth of understanding of the market and its issues that is unmatched and unrivaled by any analyst group.

For more information, please visit:

**[www.comtechadvisory.com](http://www.comtechadvisory.com)**

ComTech Advisory also hosts the CTRMCenter, your online portal with news and views about commodity markets and technology as well as a comprehensive online directory of software and services providers.

Please visit the CTRMCenter at:

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