



## Commodities Trading and Risk Management Technology

Maximising the benefits of  
your CTRM investment

# CTRM technology delivery: Common mistakes and challenges

Many commodities traders have invested heavily in their Commodities Trading and Risk Management (CTRM) technology. However, few companies are completely satisfied that they are unlocking the full benefits of their investment.

There are many different types of business, functional and technical benefits that can be captured through an effectively delivered and maintained CTRM technology solution. However, opportunities to deliver benefits are commonly missed, or value is leaked over time due to poor practices and underinvestment in critical areas.

## Failing to target and plan benefits delivery

From the start, many organisations fail to adequately identify and prioritise target benefits as part of defining a business case for their CTRM solutions. This can reduce the ability to fully plan benefits delivery, and properly steer investment and decision making. Additionally, systems selections can become overly focused on assessing non-differentiating requirements that don't truly set products and vendors apart, whilst neglecting more strategic considerations. It's also not uncommon to observe organisations investing in functionality which eventually remains unused or underutilised.

## Insufficient focus on business design

Implementation projects commonly suffer from the absence of adequate business design in the form of a well defined trading operating model. When combined with strong design governance, a clear operating model blueprint aligns understanding across the business and project teams, guides detailed design, provides a baseline to manage future change, and helps to support more effective decision making.

In addition, many projects fail to exploit a CTRM system implementation as an opportunity to redesign and realign the book structure. Whilst CTRM systems can be flexible in terms of adding new books and other trade reporting attributes, the business and IT impacts of a fundamental book structure redesign can be more significant and difficult once operational. Many projects also approach book structure design from a technical perspective without adequately considering the business requirements and benefits.

## Underinvestment in project assurance and delivery

Once in project 'implementation mode', sight of objectives and target benefits can quickly become lost, particularly as project teams become busy on meeting tough deadlines and 'getting live' without the required levels of project assurance and future planning. This is commonly exacerbated by excessive focus on technical delivery without adequately investing in other important design and change related capabilities. This is especially the case, as these areas are commonly cut or scaled back on the basis of insufficient project funding. For example, many projects fail to establish appropriate levels of project governance and steering, underinvest in project management office, and lack focus on proper change management and business readiness. A lack of clear design governance and insufficient investment in good trading business analysts can also be a contributing factor, as can failing to properly define and plan post implementation support and development capabilities. All of these can further undermine the chance of success and degrade the final experience and outcomes for the business and users, especially for larger implementations.

## Keeping pace with business change

Getting the most out of CTRM systems can be further impeded by the need to keep pace with rapid business change. New business models, mergers and divestments, new regulatory requirements, and supporting new deal types, commodities, and markets can all put stress on the systems environment. For IT functions, delivering new requirements whilst continuing to properly support the business can be challenging, especially when there is insufficient capacity and capability to meet demand. This can further undermine the ability to maintain quality systems. Focus and investment is therefore required to ensure effective IT delivery and support. This includes a well executed IT and business engagement model, quality planning, discipline around CTRM design and architectural and technical standards, proper data governance, and adequate quality assurance. A commitment to architectural improvement projects and keeping pace with vendor product upgrades are also required to prevent the accumulation of future technology and delivery related risks.

## Living with the consequences

Unfortunately, it is all too common to see poor practices and underinvestment manifest as issues across the trading and risk organisation. For example, proliferation of manual processes and spreadsheets, poor quality data, inconsistent reporting, system performance issues, reoccurring defects, challenges delivering system changes, and excessive levels of IT intervention in running operational processes. For IT managers, dealing with these issues is challenging enough without further headaches such as increasing cost pressures, limited capital expenditure, keeping pace with technology, overrunning projects, and maintaining a skilled workforce.

# CTRM technology delivery: Why Deloitte?

Deloitte's CTRM practice is geared to help our clients navigate strategic decisions, avoid common pitfalls, and optimise their CTRM technology return on investment.

Our services span the CTRM system asset lifecycle from inception, selection, planning and design through to delivery and post implementation maintenance and support.

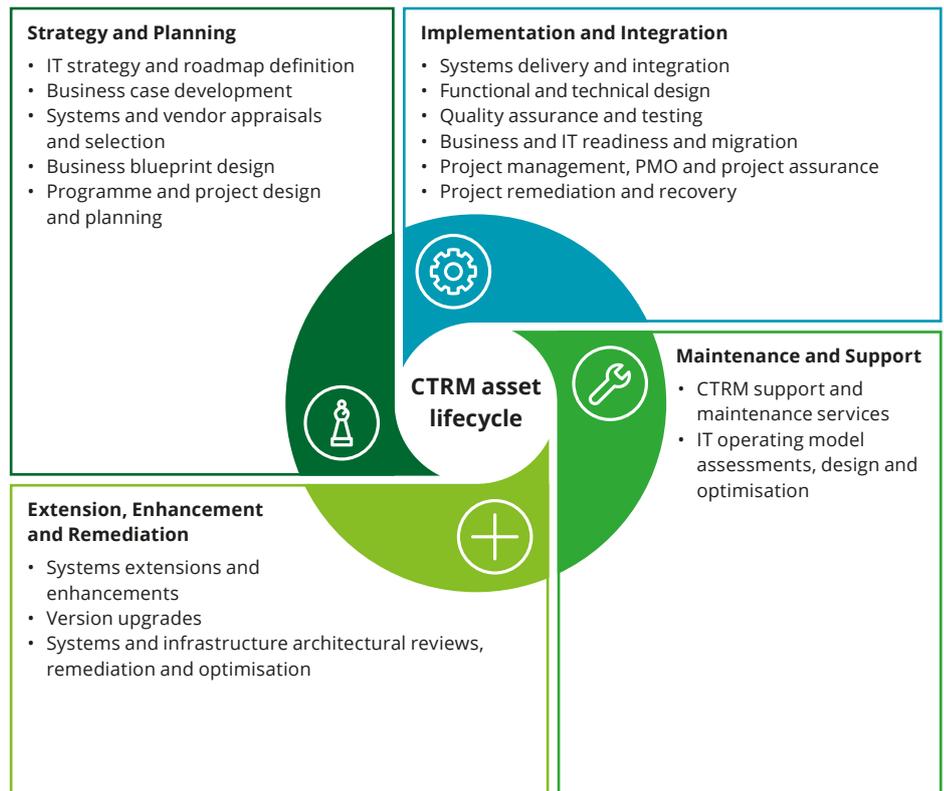
Our dedicated resources bring advanced expertise, experience and skills across a range of vendor products, commodity classes and industries. This includes CTRM solutions that span front, middle, and back office and regulatory requirements, and integrate with other logistics, risk, finance and treasury solutions.

We also work with CIOs and CTRM IT managers to enhance their IT functions. This includes performing system and architectural review and improvement projects, and helping to design and optimise the IT organisation in terms of business and IT engagement, cost and efficiency, and delivery effectiveness.

## Our wider and complementary CTRM services

- CTRM technology
- Trading strategy
- Trading operations
- Hedging & portfolio management
- Risk management
- Quantitative risk & analytics
- Governance & controls
- Finance, treasury & credit
- Compliance & regulations
- Trading surveillance & forensics
- Disputes & litigation
- Cyber & IT security
- Human performance
- Organisational transformation
- Internal audit

## Deloitte CTRM technology services across the system asset lifecycle



## Our CTRM differentiation:

- We bring broader and deeper business, trading and risk expertise and capabilities.
- Our key focus on business design, project assurance, and business transformation and change.
- Our integrated business and technology CTRM related offerings that help reduce business risk and increase value delivery.
- Our proven methodologies and accelerators optimise delivery 'time to value' and reduce delivery and business risk.
- Our focus on CTRM architectural optimisation to deliver efficiency, resilience and scalability across the CTRM systems landscape.
- We leverage our onshore, near shore, and offshore CTRM centres to optimise capabilities, expertise and cost.
- Our expertise in CTRM IT support and maintenance operations.
- Our experience of new technology and innovation – helping clients meet future threats and opportunities.

# Targeting CTRM technology benefits

We work with our clients to identify, prioritise, target and deliver business benefits to maximise their CTRM technology return on investment:

- Decrease **manual effort** and **improve efficiency**
- Increase focus on **value add activities**
- Reduce **operational risk**
- Enhance **decision making** and **increase performance and revenues**
- Improve **transparency** and management of **positions and risk exposures** (market, counterparty, liquidity)
- Manage **currency risk** and related exposures
- Deliver clear performance and risk **accountability**
- Manage **allocation of risk capital**
- Enhance **pricing and valuation** capabilities
- Remediate excessive spreadsheet reliance
- Enhance **cost measurement, transparency and control**
- Reinforce **regulatory compliance** capabilities
- Comply with **hedge accounting standards** and measure hedge effectiveness
- More effectively **manage and control data**
- Deliver more powerful, aligned and **standardised reporting**
- Authorise and control user access, activities and **segregation of duties**
- Ensure **auditable records** to create transparency and traceability
- Robust platform for delivering **new business and transactional scalability**

## Delivering CTRM systems – desirable qualities and capabilities

### Functional properties

|   |   |  |   |
|---|---|--|---|
| Rich and advanced functionality and business logic  | Integrated, automated and configurable workflows      | Ability to manage controls and validations     | Simulation, forecasting and optimisation capabilities |
| Intraday, real time and near-real time capabilities | Ability to access, extract, report and visualise data | Robust data management capabilities            | Ability to manage and store documents                 |
| Effective user access controls                      | Navigable and easy to use (user interface)            | Ability to import data                         | Configurable templates                                |
| Ability to operate in multiple currencies and units | Risk and pricing models                               | Effective, flexible and extensible data models | Ability to add limits and alerting                    |

### Non-functional properties

|                         |                                  |  |                                 |
|-------------------------|----------------------------------|--|---------------------------------|
| Secure and auditable    | Ease of integration              | Ease of modification and extensibility | Ease of support and maintenance |
| Performant and scalable | Technology and architectural fit | Recoverability and failure management  | Cost effectiveness              |

### CTRM IT delivery, support and maintenance

|  |  |  |                              |
|--|--|--|------------------------------|
| Project design and execution (quality, time, cost) | IT governance, standards, processes and controls | CTRM IT organisation and operating model | IT-Business engagement model |
|--|--|--|------------------------------|

# Examples of supporting our clients



## Supporting our clients navigate key decisions across the CTRM system asset lifecycle

### Buy vs Build

Decision on whether to buy a vendor CTRM product, or to build your own custom solution

### Product selection

CTRM systems are large investments and commitments – selecting the best system and vendor partner for your organisation is key

### Risk and logistics

Leverage the CTRM system native functionality, or opt to implement separate specialist risk and logistics products

### Non standard/complex deals

Key decision on approaches to capture and manage deal terms and optimise and value complex transactions e.g. gas storage, swing options

### Internal or outsourced CTRM support and maintenance

Key decision on the organisational approach to support and maintain the CTRM solution

### Single vs 'Best of Breed'

Attempt to model all commodities, markets, and instruments in a single core CTRM system, or opt for multiple systems to adopt 'best fit' solutions?

### Versioning

Implement the latest version of a vendor CTRM product, or rely on previous and more 'proven' releases?

### Interfaces

Rely on manual/semi manual or automated interfaces?

### Cloud vs hosted CTRM

Decision on where to host the solution e.g. CTRM in the cloud or hosted on site

# CTRM contacts

## UK and Switzerland

**Randy Wilson – Partner**  
Commodities Trading Advisory  
+44 20 7303 8657  
randywilson@deloitte.co.uk

**Mathew Heywood – Director**  
Commodities Trading Advisory  
+44 20 7007 8744  
mheywood@deloitte.co.uk

## Australia

**Alex Georgievski – Partner**  
Commodities Risk Advisory  
+61 29 322 7032  
algeorgievski@deloitte.com.au

## Canada

**Trent Gall – Partner**  
Enterprise Risk Services  
+1 403 267 0569  
tgall@deloitte.ca

## Czech Republic

**Vladimir Vanek – Partner**  
Consulting  
+420 24 604 2361  
vvanek@deloitteCE.com

## Denmark

**Jens Skov Holm – Partner**  
Consulting  
+45 22 20 21 58  
jsholm@deloitte.dk

## Germany

**Thomas Schlaak – Partner**  
Consulting  
+49 403 2080 4894  
tschlaak@deloitte.de

## Japan

**Kenji Shimoda – Partner**  
Consulting  
+81 80 9350 0862  
keshimoda@tohatsu.co.jp

## Portugal

**Paula Mateus – Partner**  
Consulting  
+351 21 042 2580  
pmateus@deloitte.pt

## Spain

**Felipe Requejo – Partner**  
Consulting  
+34 91 438 1655  
frequejo@deloitte.es

## United States

**Brian Murrell – Partner**  
Commodities Trading Advisory  
+1 21 2436 4805  
bmurrell@deloitte.com

**Andrew Fike – Partner**  
Consulting  
+1 713 982 2918  
afike@deloitte.com

# Deloitte.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (“DTTL”), a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see [www.deloitte.co.uk/about](http://www.deloitte.co.uk/about) for a detailed description of the legal structure of DTTL and its member firms.

Deloitte LLP is the United Kingdom member firm of DTTL.

This publication has been written in general terms and therefore cannot be relied on to cover specific situations; application of the principles set out will depend upon the particular circumstances involved and we recommend that you obtain professional advice before acting or refraining from acting on any of the contents of this publication. Deloitte LLP would be pleased to advise readers on how to apply the principles set out in this publication to their specific circumstances. Deloitte LLP accepts no duty of care or liability for any loss occasioned to any person acting or refraining from action as a result of any material in this publication.

© 2016 Deloitte LLP. All rights reserved.

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London EC4A 3BZ, United Kingdom. Tel: +44 (0) 20 7936 3000  
Fax: +44 (0) 20 7583 1198.

Designed and produced by The Creative Studio at Deloitte, London. J7333