

Association for Financial Markets in Europe

Technology & Operations Division

ECB Operations Managers Working Group

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- **Overview of AFME**
- **Overview of the Technology and Operations Division**
- **Presentation of two recent papers:**
 - Industry Utilities: A Perspective on the Challenges and Opportunities for Capital Markets
 - Technology and Innovation in Europe's Capital Markets
- **Summary of our 2018+ focus areas**
- **Q&A**

- **AFME is the voice of Europe's wholesale financial markets and represent the leading global and European banks and other significant capital market players**
- The group focus on a wide range of market, business and prudential issues
- We bring a pan-European perspective, bringing policy and technical expertise, and constructive influence, with European and global policymakers
- AFME works with its members through a series of Divisions and Committees
- Examples include: Prudential Regulation, Recovery and Resolution, Capital Markets, Post Trade, Compliance, Global Foreign Exchange (GFMA), Public Policy and Advocacy
- AFME is a member of the Global Financial Markets Association (GFMA) that includes sister organisations in North America (SIFMA) and Asia (ASIFMA)

- **The AFME Technology and Operations Division focuses on the common challenges our members face out of regulation, expense pressure, innovation, and changes in the risk and security environment**
- The objective of the division is to enable continued technological innovation for financial organisations and to promote the optimum related regional and global regulatory and security framework
- The Technology and Operations Committee (TOC) is led by senior heads of Technology and Operations from AFME board member firms
- The TOC is focused on three priority areas:
 - **Cybersecurity and Resilience:** Identifying and responding to cybersecurity risks and emerging frameworks
 - **Innovation and New Technologies:** Supporting innovation, the adoption of new technologies, and regulatory change
 - **Operational Cost and Efficiency:** Achieving cost reduction and efficiency gains through process and technology change

- **The paper identified the factors that could support the development of successful utilities and the future opportunities that exist for the industry**
- The paper was developed through a survey and subject matter expertise of the AFME Technology and Operations Industry Utilities Working Group
- **Key findings include:**
 - Utilities provide cost and efficiency savings and enhanced risk management opportunities; however, there are many barriers which impair their effectiveness and adoption
 - Standards and industry collaboration are fundamental in realising the maximum benefits
 - We identified ten specific opportunities - including KYC, reference data and regulatory reporting - that have the potential for a utility service
 - For utilities to succeed:
 - Banks need to work collectively on areas of common and non-competitive need
 - Policymakers and authorities can facilitate and contribute to the industry dialogue
 - Third-parties and regulators can provide support by focusing on the importance of standardisation and interoperability in utility offerings

Utility operating models and the degree of preference from banks

Utility Models		Preference	
1	Single Financial Institution	A single financial institution acts as a utility provider for multiple participants	0%
2	Multi-Financial Institution (Open Shareholding)	Multiple financial institutions are shareholders in a utility that is available to other participants	14%
3	Multi- Financial Institution (Closed Shareholding)	Multiple financial institutions are shareholders in a utility that is closed to other participants	14%
4	Third-Party¹ Provided	One or more third-parties act as a utility provider to two or more participants (open or closed)	29%
5	Third-Party and Financial Institution Joint Venture	One or more third-parties and multiple financial institutions form a joint venture utility that is made available to other participants (open or closed)	43%

1 Third party is defined as any other market participant that is not a bank receiving (primary) or providing (secondary) a utility service.


- **Utilities represent an opportunity for a wide range of participants – banks, policymakers, regulators, third-party suppliers – yet require a collective effort for their benefits to be realised**
- We suggest the following three recommendations to the industry:
 - Financial institutions need to work collectively, placing greater emphasis on the long-term benefits for the wider industry and focusing on areas of common and non-competitive need
 - Policymakers and authorities can play a key role in facilitating and contributing to the industry dialogue that is needed, ensuring that the standards and benefits of utilities are achieved for all participants
 - Third-parties and regulators can support the industry by focusing on the importance of standardisation and interoperability in utility offerings to help drive increased adoption and uptake in the market

- **The paper considered current trends in technology and innovation and their impact on the 'Investment Bank of the Future' within European capital markets**
- The paper was developed through a survey and interviews with members of the Technology and Operations Committee, supported by subject matter expertise from PwC
- **Key findings include:**
 - Technology is one of the most powerful tools banks have to address current industry challenges and deliver future reductions in operating costs and inefficiency
 - Four technologies have the potential to transform banks and the industry: Data & Analytics, Cloud Computing, Artificial Intelligence (AI) and Distributed Ledger Technology (DLT)
 - New technologies and a focus on innovation will require banks of the future to be increasingly automated, data-led, open and agile
 - Balancing new technology, security and operational resilience will be key in demonstrating the suitability of future technology change to both internal and external stakeholders
 - Any future regulatory frameworks applicable to new technologies should be applied in a proportionate and principles-based approach

Technology	Description	Key findings from the report
Data and Analytics	<ul style="list-style-type: none"> The control and management of data assets, and the generation of insights from those data assets 	<ul style="list-style-type: none"> A key enabler for all future technology change and innovation Varying levels to how data is currently being managed and in the approaches applied to realise its future value
Cloud Computing	<ul style="list-style-type: none"> The delivery of applications and services on bank or third-party facilities (Private), facilities hosted by a Cloud provider (Public), or a mix of both (Hybrid) 	<ul style="list-style-type: none"> Underpins the ability to implement new technologies and to quickly process large amounts of data Challenges in moving existing infrastructure to both Public and Private Cloud platforms
Distributed Ledger Technology (DLT)	<ul style="list-style-type: none"> Combined database technology and cryptography where multiple participants each keep their own (distributed) copy of, and can update, records in a shared dataset 	<ul style="list-style-type: none"> Widespread research and specific instances of DLT being used, and extensive future use cases Large scale or industry-wide use is still seen as a long-term (5 year+) and ambitious objective
Artificial Intelligence	<ul style="list-style-type: none"> An umbrella term for a number of algorithms and technologies that allow machines to simulate human intelligence by learning 	<ul style="list-style-type: none"> Expected to develop rapidly across multiple functions of the banks Success dependent on the quality of data and the ability to understand how outcomes are realised

- **New technologies will have varying levels of impact across all functions of the bank value-chain**
- A positive impact is expected from Data & Analytics and AI on Sales and Trading; DLT on Post Trade
- Bank's will become more agile and automated; the workforce will be focused on high-value activities and relationships
- Banks must identify near term benefits that can be delivered incrementally and maintain a long-term investment focus on innovation, security and resilience

Technology	Sales and Trading				Post Trade			Risk, Compliance and Finance			Information Technology
	Sales & Relationship Management	Trading	Advisory	Research	Trade Support & Processing	Product Management	Client Support & Servicing	Risk Management	Finance & Treasury	Legal & Compliance	Technology & Infrastructure
Data Management and Analytics	High	High	Med	Med	Med	Med	High	High	Med	Med	Med
Artificial Intelligence	Med	High	Low	Med	Med	Low	High	Med	Low	Med	Med
Cloud Computing	Low	Low	Low	Low	Med	Low	Low	Med	Low	Low	High
Distributed Ledger Technology	Low	Low	Low	Low	High	Low	Low	Low	Low	Low	Med

 Areas where additional PwC research and interviews indicate the opportunity may be greater than shown by survey responses. For example, whilst responses on Cloud computing tended to consider the potential benefits of infrastructure solutions, the opportunities would be significantly higher for platform (PaaS) and software (SaaS) cloud services.

Q&A

Industry Utilities: A Perspective for Capital Markets:

<https://www.afme.eu/globalassets/downloads/publications/afme-tao-industry-utilities.pdf>

Technology and Innovation in Europe's Capital Markets:

<https://www.afme.eu/globalassets/downloads/publications/afme-pwc-tech-and-innovation-in-europes-capital-markets.pdf>