DERIVATIVES SERVICE BUREAU

TECHNOLOGY ADVISORY COMMITTEE – INDUSTRY CONSULTATION 2 REVIEW MEETING

12 August 2019

MEMBER FINAL V01

<u>Agenda</u>

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Introduction

DSB Industry Consultation

The Chair has requested two additional TAC meetings to be scheduled in 2019 to tie-in with the two rounds of the DSB's Industry Consultation process,

The objectives of this second meeting are to validate the DSB's assessment of the feedback received in relation to the technology-related questions in the consultation paper. This is with a view to providing guidance to the Board on the appropriate investment levels in technology and services in the 2020 budget cycle. The DSB's decision will be published in the final consultation report.

The following slide summarises the remaining key milestones associated with the consultation process leading to the publication of the final consultation report.

Milestones

The DSB is currently undertaking a further industry consultation exercise, the timeline for this was published on Monday 4th March, the full notification is available here.

Key Milestones:

- ➢ 09 May 2019   Publication of 1st DSB 2020 Consultation Document (CP1)
- ➢ 05 Jun 2019   Deadline for CP1 Feedback
- ➢ 17 Jun 2019   Publication of TAC Meeting Pack
- ➢ 18 Jun 2019   TAC Industry Consultation Meeting (1)
- ➢ 05 Jul 2019   Publication of 2nd DSB 2020 Consultation Document (CP2)
- ➢ 29 Jul 2019   Deadline for CP2 Feedback
- ➢ 05 Aug 2019   Publication of TAC Meeting Pack
- ➢ 12 Aug 2019   **TAC Industry Consultation Meeting (2)**
- ➢ 19 Aug 2019   Publication of DSB 2020 Final Consultation Report

Topics under Consideration - Overview

The DSB conducted a second round of consultation on the 2020 User Agreement, and included technology related questions on:

- Functionality (3 questions)

- Data Submission Enhancements (1 question)

- Service Levels (2 questions)

- Service Availability (1 question)

- Cyber Security (4 questions)

9 responses available at https://www.anna-dsb.com/2020-user-fee-and-user-agreement-consultations/:

• 3 trading venues (Bloomberg, State Street, 1 x Anonymous)

• 2 sell-side investment firms (Bank of America, 1 x Anonymous)

• 4 trade associations (BVI, EFAMA, ISDA, EVIA)

Topics under Consideration - Functionality

CP2 #	Topic	Response Summary	Proposed Next Steps
Q1	CFI generation service	Mixed response	Progress analysis (€40K capex) No implementation (€360K capex, €160K opex)
Q5	GUI Functionality	Mixed response	Progress analysis (€60k capex) No implementation (€200K capex, €40K opex)
Q6	Additional Enhancements	Unanimous feedback in favour	Progress (No cost)

Topics under Consideration – Functionality

CP1 Question	CP2 Additional Information
Q1.1 CFI Generation Service Should the DSB investigate the provision of a service that supports the creation, search and publication of CFI codes for all products in scope of EMIR? Given the wider product scope of EMIR vs MiFID, the DSB envisions such a CFI service to be independent of the existing ISIN generation service.	The DSB has provided costings for the service in this section in order to allow industry to make an informed decision on whether the DSB should provide such a service under the ISO cost-recovery principles, or whether industry prefers to receive such a service from commercial operators. The DSB proposes two next steps, allowing users to determine whether and how to progress: a) Conduct analysis to document the expanded product coverage at launch, associated workflows and technology impact – overseen by the DSB PC and TAC as relevant (details below) b) proceed with implementation unless the analysis determines that forecast costs may be exceeded Cost estimates: a) Capex:　　€40k analysis in 2020 b) Capex:　　€360k for the build cost in 2020 c) Opex:　　€160k annual run cost from 2021 Impact on DSB total costs: 2020:　　　None　(Capex in year incurred is funded by the DSB's financial sustainability margin) 2021-24:　　€260K (<3% increase in costs, amortized over 4 years) 2025 onwards:€160K (<2% increase in costs)

Topics under Consideration – Functionality

Question	Response Summary
CP2 Q1: Given the approach and cost estimates provided by the DSB in this consultation, and bearing in mind that these costs would be shared across the DSB's user base as per the DSB's existing fee model, do you believe it is appropriate for the DSB to provide a CFI service to act as the golden source of CFI codes for all EMIR Level III products, or should such a service be left to commercial operators? Next step: Progress analysis No implementation	Yes=4 (2 x sell-side; 2 x association;) No=5 (2 x association; 3 x TV) Comments For: 1. Yes we agree the DSB should do this (1 x sell-side) 2. For reasons of consistency across the market and further product coverage, we strongly support DSB to act as golden source of CFI codes (1 x sell-side) Comments Against: 1. Golden source of CFI should be commercial operators or regulators (2 x TV; 2 x association). 2. Cost and terms should be separate from ISIN terms (3 x TV; 2 x association) 3. The associated costs are too high (1 x association)

Topics under Consideration – Functionality

CP1 Question	CP2 Additional Information
Q1.5 GUI Functionality Should the DSB investigate the enhancement of its web-based GUI to allow non-technical users to search for ISINs by any attribute across any product template?	The DSB proposes to implement a limited set of search filters based on the feedback provided in CP1, liaising with the PC and the TAC to finalise the set of filters and reach agreement on the implementation approach. Anticipated costs are provided below, based on implementing the examples provided in the CP1 feedback listed in this document and also the TAC example: Cost Estimates: a) Capex: €60k liaison with PC and TAC to finalise functionality and technical design b) Capex: €200k for the build cost c) Opex: €40k annual run cost (infrastructure + support staff) from 2021 Impact on DSB total costs: 2020: None 2021-24: €105K (<1.2%) 2025 onwards: €40K (<0.4%)

Topics under Consideration – Functionality

Question	Response Summary
CP2 Q5: Do you concur with the DSB's proposal to implement a minimal set of search filters targeting non-technical users? Next step: Propose to undertake analysis only, to include details of the build and run costs No implementation	Yes=6 (2 x sell-side; 1 x TV; 3 x association) No=3 (2 x TV; 1 x association) Comments For: 1. Yes, easy to search improvements in line with TAC recommendation are welcome (2 x association) 2. Yes, we would support enhancements of the existing search functionalities and easy-to-use filters intended to target non-technical users (1 x sell-side) 3. We propose only the analysis is approved to allow a better assessment of the costs and benefits. Careful consideration needs to be given to ongoing run cost beyond the build cost (1 x TV; 1 x association) Comments Against: 1. This would incur cost for users who took the time to train their staff. Occasional users should do the same (1 x TV) 2. Size of the build and run budgets are too high (1 x TV; 2 x association) 3. This is not a cost that should be borne by the entire user base given it is not requested by a large majority of DSB users (1 x TV)

Topics under Consideration – Functionality

CP1 Question	Additional Information
Q1.6 Additional enhancements a) Do you think that the DSB service should be reviewed in order to examine any additional technical enhancements that could be made to facilitate enhanced and/or more efficient integration?	The DSB proposes to work with the TAC utilising existing TAC secretariat resources to determine how best to progress the three specific examples listed above. There is no cost impact given the use of existing resources, with the corollary that the investigation is subject to TAC prioritization. Cost Estimates: None Impact on DSB total costs: None

Topics under Consideration – Functionality

Question	Response Summary
CP2 Q6: Do you concur with the DSB's proposal to utilise existing TAC resources to address the identified concerns as part of the DSB's business as usual resourcing? Next step: Propose to implement	Yes=9 (2 x sell-side; 3 x TV; 4 x association;) No=0 Comments For: 1. Yes, assuming the DSB can handle any increased workload (1 x sell-side) 2. Yes. Indeed, we would encourage ANNA DSB to improve ANNA server. On a few occasions, ANNA server side couldn't deter heartbeat of client processes, even though procedures were followed to recycle our subscriber process multiple times (1 x sell-side) 3. Yes, existing TAC resources should be used to address identified concerns as part of the DSB's business as usual resourcing (1 x TV) 4. We agree with the proposal to utilize existing resources (1 x association) 5. Yes, we concur with the DSB's proposal (1 x TV) 6. Yes, EVIA does concur with the DSB's proposal to utilise existing TAC resources to address the identified concerns as part of the DSB's business as usual resourcing (1 x association) Comments Against: 1. None

Topics under Consideration – Data Submission Enhancements

CP2 #	CP1 Question	Response Summary	Proposed Next Steps
11	2.2 (b) LEI for CDS Single Name *(PC Referred Question)*	Majority in favour	Progress analysis (€60K capex) No implementation (€200K capex, €90K opex)

Topics under Consideration – Data Submission Enhancements

CP1 Question	Additional Information *(PC Referred Question)*
Q2.2(b): LEI for CDS Single Name Where a user submits an underlying ISIN for a credit default swap, do you want the DSB to investigate connecting to the new LEI-ISIN mapping API in order to also provide the LEI (in all instances where it is available) as part of the associated OTC ISIN record?	The DSB has provided costings for the service in this section in order to allow industry to make an informed decision on whether the DSB should provide such a service under the ISO cost-recovery principles. Cost Estimates: a) Capex: €60k analysis in 2020 b) Capex: €200k for the build cost in 2020 c) Opex: €90k annual run cost from 2021 Impact on DSB total costs: 2020: None 2021-24: €155K (<2% increase in costs) 2025 onwards: €90K (<1.2% increase in costs)

Topics under Consideration – Data Submission Enhancements

Question	Response Summary
CP2 Q11: Do you concur with the DSB's proposal for the build of the LEI-ISIN mapping service for CDS single names? Next step: Propose to undertake analysis only, to include details of the build and run costs No implementation	Yes=7 (4 x association; 2 x sell-side; 1 x TV;) No=2 (2 x TV) Comments For: 1. We fully support a LEI-ISIN mapping service based on the ANNA-GLEIF agreement (1 x TV; 2 x association) 2. We support in principle the mapping of a submitted ISIN to the LEI using the ISIN-LEI mapping service and with the specific goal of increasing the data quality. The costs as proposed are high, in particular the ongoing annual run cost, and the direct benefits are unclear. We propose an initial analysis that outlines in more detail the approach and work needed, the costs and the benefits of integrating the LEI-ISIN mapping (2 x association) Comments Against: 1. We support use of LEIs, but not the DSB's proposal given the cost involved does not benefit non-CDS users (2 x TV)

Topics under Consideration – Service Levels

CP2 #	CP1 Question	Response Summary	Proposed Next Steps
19a	3.4a AUP monitoring – Core functionality	Significant majority against	Drop (€170K capex, €40K opex)
19b	3.4b AUP monitoring – API functionality	Significant majority against	Drop (€85K capex, €20K opex)

Topics under Consideration – Service Levels

CP1 Question	Additional Information *(PC Referred Question)*
Q3.2a: Proactive AUP Monitoring Should the DSB's AUP monitoring process be extended to warn users when they exceed certain percentage levels of their AUP allocation?	**(a) Proposal for core implementation:** This option proposes to implement the minimal core functionality via an automated email-based mechanism which automatically notifies all fee paying users upon breaching certain pre-configured thresholds (e.g. 75%, 90% and 100%). *The precise thresholds and functionality to be agreed with the TAC.* Cost Estimates: a) Capex: €30k analysis for TAC review b) Capex: €140k implementation c) Opex: €40k run cost from 2021 Impact on DSB total costs: 2020: None 2021-24: €82.5K (<1% increase in costs) 2025 onwards: €40K (<0.5% increase in costs)

Topics under Consideration – Service Levels

Question	Response Summary
CP2 Q19(a): Do you concur with the DSB's proposal to implement the core functionality? Next step: Drop	Yes=1 (1 x TV) No=4 (2 x TV; 2 x association) Comments For: 1. We support the email/core functionality (1 x TV) Comments Against: 1. We favour a proactive monitoring system of the UAP limits. However, if the DSB cannot provide this functionality as part of the BAU environment, this should be dropped (2 x association; 1 x TV) 2. We do not support the DSB's proposal due to the costs involved (1 x TV)

Topics under Consideration – Service Levels

CP1 Question	Additional Information *(PC Referred Question)*
Q3.2b: Proactive AUP Monitoring Should the DSB's AUP monitoring process be extended to warn users when they exceed certain percentage levels of their AUP allocation?	**(b) Proposal for API implementation:** The DSB can also optionally implement an additional API-notification on top of the core functionality, to allow both REST and FIX users programmatic notification of threshold breaches. *Precise functionality to be agreed with the TAC (e.g. API to allow the user to retrieve existing % usage or only be notified when threshold is reached).* Cost Estimates (assume implemented at the same time as core): a) Capex: €15k analysis for TAC review b) Capex: €70k implementation c) Opex: €20k run cost from 2021 Impact on DSB total costs: 2020: None 2021-24: €41.25K (<1% increase in costs) 2025 onwards: €20K

Topics under Consideration – Service Levels

Question	Response Summary
CP2 Q19(b): Do you concur with the implementation of the API functionality? Next step: Drop	Yes=0 No=4 (2 x TV; 2 x association) <u>Comments Against:</u> 1. We favour a proactive monitoring system of the UAP limits. However, if the DSB cannot provide this functionality as part of the BAU environment, this should be dropped (2 x association; 1 x TV) 2. We do not support the DSB's proposal due to the costs involved (1 x TV)

Topics under Consideration – Service Availability

CP2 #	CP1 Question	Response Summary	Proposed Next Steps
20	4.1 Change of operating hours	All applicable responses were in favour.	Progress (No cost)

Topics under Consideration – Service Availability

CP1 Question	Additional Information
Q4.1 Change of operating hours Should the DSB's downtime hours be change to between 00:30AM Sunday UTC and 12:30PM Sunday UTC?	The DSB proposes to implement the downtime model to between 00:30AM Sunday UTC and 12:30PM Sunday UTC. This change incurs no incremental costs as it can be performed by existing business as usual resources. Cost Estimates: None Impact on DSB total costs: None

Topics under Consideration – Service Availability

Question	Response Summary
CP2 Q20: Do you concur with the DSB's proposal to change the DSB's downtime hours to between 00:30AM Sunday UTC and 12:30PM Sunday UTC? Next step: Progress	Yes=5 (3 x TV; 2 x association) No=0 Comments For: 1. We support DSB's proposed downtime hours to be between 00:30AM Sunday UTC and 12:30PM Sunday UTC (1 x TV) 2. We support the TAC recommendation on this (1 x association) 3. Yes, we have no concerns with the proposed change (1 x TV) 4. EVIA has no particular view on this, but in general would support the TAC recommendation (1 x association) Comments Against: 1. None

Topics under Consideration – Cybersecurity

CP2 #	CP1 Question	Response Summary	Proposed Next Steps
Q21	5.1 GUI Multi-Factor Authentication implementation	Mixed response	Drop (€200K capex, €45K opex)
Q22	5.2 Secure SDLC analysis	Mixed response	Progress (€90K Opex)
Q23	5.3 ISO 2700X (cyber-security) analysis	Mixed response	Progress (€90K Opex)
Q25	5.5 Addition of Chief Info-Sec Officer	Mixed response	Progress (€290K Opex)

Topics under Consideration – Cybersecurity

CP1 Question	Additional Information
Q5.1 GUI Multi-factor authentication Should the DSB GUI support multi-factor authentication to match best practice cyber-authentication guidelines?	The DSB proposes to implement a minimal MFA solution with the narrow remit of only mitigating the identified risks. This solution would include self-provisioning as well as password expiry in order to minimize incremental on-going load on the support desk. *Governance: TAC to be involved in the design and implementation* *Cost Estimates:* *a) Capex:* *€40K analysis* *b) Capex:* *€160K implementation* *c) Opex:* *€45k run cost from 2021* *Impact on DSB total costs:* *2020:* *None* *2021-24:* *€95K (<1% increase in costs)* *2025 onwards:* *€45K (<0.5% increase in costs)*

Topics under Consideration – Cybersecurity

Question	Response Summary
CP2 Q21: Do you concur with the DSB's proposal to implement a minimal MFA solution for the GUI? Next step: Drop	Yes=4 (2 x association; 1 x sell-side; 1 x TV) No=4 (2 x TV; 2 x association) Comments For: 1. We welcome highest standards of security (2 x association) 2. We support a minimal MFA solution as long as the user experience is not compromised (1 x sell-side) 3. Yes, we concur (1 x TV) Comments Against: 1. We do not support implementing a minimal MFA solution for the GUI (1 x TV) 2. The costings and the scale of even a minimal MFA solution are too high at this point in time, since the DSB does not hold PII data, so the risks are more localised and bespoke (1 x TV; 1 x association) 3. MFA and the proposed cost, might not be the best solution for the risks identified: the core system should be isolated and protected at any access point, not just the GUI access. Internal support functions should be clearly separated from the core functionality and require their own protection. An attacker impersonating a more privileged user to not pay its fair share is highly unlikely because of the reputational risk associated with it and in the GUI environment in any case this is unlikely to have much impact (1 x association) 4. Our position is that the DSB should already have implemented all best practices with respect to cybersecurity within the existing cost structure (1 x TV)

Topics under Consideration – Cybersecurity

CP1 Question	Additional Information
Q5.2 Secure SDLC Should the DSB's Software Development Life Cycle (SDLC) be extended to embed security considerations throughout the SDLC?	The DSB proposes to perform the analysis on the adoption of ISO 27034 as its secure SDLC methodology, while also considering any additional items required by NIST that may be relevant to the DSB. On the assumption that industry approves the on-boarding of the new CISO function (see Q5.5), the DSB proposes to move forward with the analysis phase in 2020, led by the CISO and in conjunction with the TAC. The deliverable of the analysis to include scope and details of the implementation, alongside implementation costs and an explanation of the steps to be taken to ensure implementation will be delivered cost-effectively. The analysis will be provided to the TAC to review, and assuming TAC agreement, the implementation will be the subject of a subsequent consultation in 2020 for possible implementation in 2021. *Cost Estimates:* *a) Opex: €90k analysis* *Impact on DSB total costs:* *2020: €90K (<1% increase in costs)* *2021 onwards: None*

Topics under Consideration – Cybersecurity

Question	Response Summary
CP2 Q22: Do you concur with the DSB's proposal to move forward with analysis of Secure SDLC? Next step: Progress analysis	Yes=5 (4 x association; 1 x TV) No=2 (2 x TV) Comments For: 1. Yes, we welcome highest standards of security (2 x association) 2. We support moving forward with the analysis. (1 x association) 3. Yes, we concur (1 x TV) 4. Yes, in line with our answer CP1/5.2, EVIA does support the DSB moving forward with the analysis (1 x association) Comments Against: 1. We do not support analysis of Secure SDLC considering the cost estimated by DSB (1 x TV) 2. The DSB should already have implemented all best practices with respect to cybersecurity within the existing cost structure (1 x TV)

Topics under Consideration – Cybersecurity

CP1 Question	Additional Information
Q5.3 ISO 2700X Should the DSB explore adopting the ISO 2700X standard as its framework for addressing information security risks?	On the assumption that industry approves the on-boarding of the new CISO function (see Q5.5), the DSB proposes to move forward in principle with implementing the ISO27001/27002 framework, but to spend 2020 performing only the analysis, led by the CISO and in conjunction with the TAC. The scope of this analysis to include costs of implementation as well as details of the cost-benefit and an explanation of how costs will be contained. The analysis will be reviewed by the TAC and assuming agreement, will be the subject of a subsequent consultation in 2020 for possible implementation in 2021. *Governance: Led by CISO and with TAC involvement* Cost Estimates: Opex: €90k analysis Impact on DSB total costs: 2020: €90K (<1% increase in costs) 2021 onwards: None

Topics under Consideration – Cybersecurity

Question	Response Summary
CP2 Q23: Do you concur with the DSB's proposal to move forward with the analysis phase for the implementation of the ISO27001/27002 framework? Next step: Progress analysis, to include cost benefit comparison and framework evaluation	Yes=4 (3 x association; 1 x TV) No=3 (2 x TV; 1 x association) Comments For: 1. We welcome highest standards of security (2 x association) 2. We support DSB further looking into this and doing the initial analysis. The analysis should include a cost benefit comparison and an evaluation of whether the proposed ISO 27001/27002 framework is the right framework for the size and activity of the DSB (1 x association) 3. We concur (1 x TV) Comments Against: 1. We do not support analysis considering the cost estimated by DSB (1 x TV) 2. Our position is that the DSB should already have implemented all best practices with respect to cybersecurity within the existing cost structure (1 x TV) 3. To reiterate CP1/Q5.3, MiFID TVs do not see the use case because DSB users would only use login/password, which can show email address that include name/surname/company name. Apart from this, DSB isn't holding any kind of PII, however implementing ISO 27001 just for this alone doesn't seem justifiable (1 x association)

Topics under Consideration – Cybersecurity

CP1 Question	Additional Information
Q5.5 Addition of Chief Information Security Officer Should the DSB explore adding a new role of Chief Information Security Officer to its management team?	The DSB proposes to on-board the 1.4 FTE staff as described above, on the premise that this skill-mix staff will also allow the DSB to provide more timely and more tailored feedback to DSB users when they request the DSB to complete their technology cyber-security risk questionnaires. Currently such requests are unable to be serviced adequately due to lack of dedicated resource, with the DSB relying on occasional updates to its generic cyber-security FAQ document. *Governance:* TAC to be involved in matters relating to CISO role, remit and prioritization of activities Cost Estimates: a) Capex: Zero analysis and change cost b) Opex: €290K annual run cost (salaries, office costs, IT & other admin) Impact on DSB total costs: 2020 onwards: €290K (<3% increase in costs) *The DSB will not progress where costs exceed the amounts set out in this document.*

Topics under Consideration – Cybersecurity

Question	Response Summary
CP2 Q25: Do you concur with the DSB's proposal to on-board a part-time CISO with a full-time security engineer? Next step: Propose to hire, with a review by the TAC after one year on long-term need	Yes=4 (3 x association; 1 x TV) No=3 (2 x TV; 1 x association) Comments For: 1. Yes, we welcome highest standards of security (2 x association) 2. Yes, we concur (1 x TV) 3. We suggest for the DSB to initially cover this function through consultancy to get a better handle on the long term need (1 x association) Comments Against: 1. We do not support on-boarding a part-time CISO considering the cost estimated by DSB (1 x TV) 2. Role did not seem large enough to warrant a full-time headcount. DSB has indicated currently this role is integrated into the management team. The proposed change to appoint an independent CISO so as to align with best practices outlined by the FSB's cybersecurity regulations does not seem to warrant the additional cost of €290,000 per year to support this (1 x TV) 3. In view of the public and transparent nature of the data in question, we do not see the use case currently for a Chief Information Security Officer (1 x association)

AOB

- TAC information: https://www.anna-dsb.com/technology-advisory-committee/

Appendices

- TAC Committee Members

- TAC 2019 Meeting Schedule

Committee Members

Institution	Category	First Name	Last Name	Position / Title
Citigroup	SI	Souvik	Deb	VP, Regulatory Reform
Credit Suisse	SI	Prem	Ananthakrishnan	IT
HSBC	SI	James	Cowie	GFI Regulatory Reporting Manager
JP Morgan	SI	Nadav	Krispin	VP, Software Engineering
Lloyds Bank	SI	Stephen	Pond	FI E-Trading & Rates Pricing Dev Manager
Morgan Stanley	SI	Shari	Lines	Financial Instrument Ref Data Architect
Rabobank	SI	James	Brown	Delivery Manager, IT Systems
SEB	SI	Henrik	Martensson	Markets CTO Office
Standard Chartered Bank	SI	Andrew	Poulter	Sabre Development Manager
State Street Bank	SI	Kimberly	Cohen	MD - Business Technology Solutions
UBS	SI	Tony	Chau	IB CTO for Regulatory Initiatives
BGC Partners	TV	Jimmy	Chen	Development Manager
Bloomberg LP	TV	Chris	Pulsifer	Software Development Manager
Nex	TV	Ziv	Yankowitz	VP - Research and Development
State Street FX Connect	TV	Raj	Roka	Head of FX Regulatory Product
Thomson Reuters MTF	TV	Zintis	Rullis	Senior Technical Specialist
Tradeweb	TV	Elodie	Cany	Director, Technology Product Development
Asset Control	Other Industry	Martijn	Groot	VP - Product Management
Simplitium	Other Industry	Aanya	Madhani	Head of Product Development
SIX Group Services AG	Other Industry	Stephan	Schaub	Senior Architect
SmartStream	Other Industry	Rocky	Martinez	CTO
Thomson Reuters Data	Other Industry	David	Bull	Head of FI Content Management
BVI	Other Industry	Felix	Ertl	VP, Legal
EFAMA	Other Industry	Vincent	Dessard	Senior Policy Advisor
FIX	Other Industry	Lisa	Taikitsadaporn	FIX Global Technical Committee
Investment Association	Other Industry	David	Broadway	Investment Operations Lead
ISDA	Other Industry	Karel	Engelen	Senior Director
Independent Expert	Other Industry	Jim	Northey	ex officio as ISO TC 68 Chair Elect

DSB Sponsor: Marc Honegger
DSB Board Member

Chair: David Broadway
Investment Association

Designated DSB Officer: Sassan Danesh
DSB Management Team

Observers	Name	Postion / Title
ESMA	Olga Petrenko	Senior Officer, Markets
FCA	Paul Everson	Senior Associate – Market Oversight
JSDA	Eiichiro Fukase	General Manager
CFTC	Robert Stowsky	IT Specialist

TAC 2019 Meeting Schedule

The following shows the agreed meeting dates & times for 2019:

- Wednesday 13th March 2019   1pm GMT (1pm UTC, 2pm CET, 8am EST)
- Tuesday 18th June 2019   1pm BST (12pm UTC, 2pm CEST, 8am EDT)
- Monday 12th August 2019   1pm BST (12pm UTC, 2pm CEST, 8am EDT)
- Wednesday 9th October 2019   1pm BST (12pm UTC, 2pm CEST, 8am EDT)