Derivatives Service Bureau

Industry Views Sought on Proposed Amendments to

Technology, GUI Functionality and Onboarding and Support Matters

Consultation Paper

29 April 2022

1 Introduction

The Association of National Numbering Agencies ("ANNA") founded the Derivatives Service Bureau (DSB) for the allocation and maintenance of International Securities Identification Numbers (ISINs), Classification of Financial Instrument (CFI) codes and Financial Instrument Short Names (FISNs) for OTC derivatives.

The allocation of ISINs to these instruments, as well as the provision of access to the ISIN archive and associated reference data, comprise the numbering agency function of the DSB. This function is overseen by ANNA as the Registration Authority for ISINs under contract with the International Organization for Standardization (ISO) through strict rules over business and technical operations, including limiting user fees to cost recovery.

The European Union's (EU) MiFID II/ MiFIR regulations mandate the use of ISINs to identify certain OTC derivatives, starting 3rd January 2018. These provisions have also been transitioned into the UK's current regulatory regime. The affected OTC derivatives include those tradeable on an EU/UK trading venue (ToTV) and those with underlying asset(s) tradeable on a EU/UK trading venue (uToTV). The reporting obligations for these instruments affect trading venues and Systematic Internalisers (SIs)[1]. ANNA, after discussions with the industry and ISO, set up the Derivatives Service Bureau (DSB) to assign global, permanent and timely ISINs to OTC derivatives.

The current level of ISIN, CFI and FISN generated by the DSB is designed to enable users to satisfy obligations under MiFID II and MiFIR (EU and UK transitioned), with the capability of an identification hierarchy to be introduced as required by industry, such as the Unique Product Identifier (UPI)[2], which will be introduced by the DSB in line with the regulatory reporting mandates of the jurisdictions of major derivatives markets. Likewise, the CFI codes provided assist with EMIR Level III reporting to offer a single, consistently generated value that can be absorbed by all users of DSB data.

Upholding the ISO principles, including operating on a cost-recovery basis, the implementation of OTC ISIN, FISN and CFI codes for OTC derivatives has been achieved through ongoing, collaborative work with market participants, authorities and other standards bodies.

The DSB serves a broad community of users – most free of cost – and others on a cost recovery basis, with users having direct input into the primary fee variables. Users also contribute directly into the service evolution via both an annual consultation process and two industry driven user forums – the Product Committee[3] and Technology Advisory Committee[4]. DSB users have multi-channel access[5] when seeking to create or search for OTC ISIN records containing additional identifiers alongside both input and a range of derived product attributes.

The DSB facilitates access for a range of organization types such as credit institutions, small brokerages, private wealth management firms, boutique asset managers, large, multi-segment and/or multi-market trading venues, derivatives houses from across the buy and sell-sides and universal-bank style sell-side institutions with multiple business segments within a single group holding structure.

[1] As defined in MiFIR
[2] https://www.fsb.org/2019/05/fsb-designates-dsb-as-unique-product-identifier-upi-service-provider/
[3] https://www.anna-dsb.com/product-committee/
[4] https://www.anna-dsb.com/technology-advisory-committee/
[5] https://www.anna-dsb.com/connectivity/

This consultation requesting feedback to help shape the DSB's service development has been sent to the DSB's user community, comprising more than 2,500 individuals across approximately 550 organizations.

At the time of this paper, in excess of 78% of institutions using the service access the DSB free of cost as Registered Users, 13% Power Users (organizations – including affiliates - with programmatic connectivity), 7% Infrequent Users – including affiliates (GUI connectivity) and 2% Standard Users – including affiliates (GUI connectivity). Amongst fee paying users; banks and credit institutions contribute towards 48% of DSB fees, trading venues contribute 37% with the balance comprised of the buy-side, data vendors and others.

The DSB continues to see material differences between those who create OTC ISIN records and those that consume the data. More than half of all OTC ISIN records have been created by the sell-side and one-third of all OTC ISIN records were created by trading venues (both MTFs and OTFs). As a comparative, Trading Venues continue to dominate OTC ISIN reporting to FIRDS, with two-thirds of all OTC derivative reference data reported.

Responses to prior consultations have demonstrated that the DSB has become an integrated part of users' business processes, with the DSB receiving significant interest in providing additional OTC derivative reference data related assistance to industry.

This consultation opens on 29th April 2022 and will close on 30th May 2022, with a final consultation report to be published on 30th June 2022. The consultation paper seeks to obtain industry views on a broad range of topics arising from user feedback during the prior 12-month period and to determine appetite for enhancing the DSB's services within the communal cost recovery ring-fence. The document seeks to present information for market participants' review and feedback, with the consultation focusing on a range of questions relating to remediation work following the detailed technical review of the DSB's cloud infrastructure in 2021, enterprise-wide risk monitoring tools and enhancements to the DSB Graphical User Interface. Market participants' views on continuing to offer Virtual Private Network connectivity as part of the cost recovery service and on the roll-out of the Client Onboarding and Support Platform (COSP) to OTC ISIN Users are also requested.

As part of the DSB's commitment on continued operational efficiency, only one OTC ISIN and CFI service related consultation paper will be published in 2022, in order to allow user fee estimates to be made available earlier in the calendar year, as requested by clients. This paper contains a reduced number of questions for consultation, so that industry's time and effort is optimized on more narrowly focused questions.

This consultation paper commences by providing an update on items approved by industry at previous consultations, followed by consultation considerations in section 5. Respondents also have the ability to provide any general comments in the final section of the response form provided at the end of this paper.

Each section of this paper lists the question being asked, supported by analytical context and where the proposed next steps have a cost impact, the associated costs have been itemised to allow industry to understand the cost / benefits associated with each proposal and make a determination with appropriate information at hand.

All proposals assume the DSB will follow its standard governance process for implementation. i.e.

- Where matters pertain to DSB product templates and associated matters, the DSB will provide appropriate analysis to the Product Committee (PC) to determine prioritization and progress accordingly;
- On matters involving DSB infrastructure, workflow and associated matters, the DSB will provide appropriate analysis to the Technology Advisory Committee (TAC) to obtain their views to ensure that the DSB remains aligned with market feedback as it progresses these items.

The DSB works to ensure the broad views and needs of the stakeholders lead the direction of development of the service. By working collaboratively, both within the DSB as well as its stakeholder user base, the DSB has been able to ensure all views are considered. In light of the broad spectrum of institutions utilizing the DSB, it is hoped that a representative set of firms will seek to respond to this consultation.

All responses will be published on the DSB's website, with respondents able to indicate in the response form if they wish the name of their institution to remain anonymous at the point of publication. All responses should be submitted using the form provided in section 7 of this paper, and sent to industry_consultation@anna-dsb.com no later than 5pm UTC on 30th May 2022.

An explanatory webinar, also providing an opportunity for industry questions to be addressed, will be held at 1pm UTC (2pm UK, 3pm CEST, 9am EST) on Wednesday 11th May 2022. All participants are welcome, with a recording to be made available following the event. Registration is required in advance via this link[6] or via the DSB website.

Please note that this consultation paper addresses provision of the DSB's existing OTC ISIN and CFI service, and is unrelated to the DSB's ongoing consultation with respect to the UPI.

[6] https://zoom.us/webinar/register/WN_Ff9Kjn03TziSAgCokyGcDA

2 Consultation Timeline

- Note that the publication of the draft DSB 2023 Access & Usage Agreement (UA) is much earlier this year as the UA has been updated for the UPI.

Milestone	Date
DSB 2023 draft Access & Usage Agreement (UA) publication	* Tue 12 Apr 2022
Publication of DSB Consultation Paper (CP)	Fri 29 Apr 2022
Webinar *** Register ***	Wed 11 May 2022
Industry feedback on the CP	Fri 29 Apr - Mon 30 May 2022
Final Consultation Report publication	Thu 30 Jun 2022
Deadline for industry feedback on proposed UA changes	Fri 2 Sep 2022
DSB 2023 final UA publication	Wed 28 Sep 2022
User termination deadline	Fri 30 Sep 2022
Annual User fees for 2023 calculated	Mon 3 Oct 2022
2023 User fees published	Wed 5 Oct 2022

3 Principles

Below is a table with a brief statement on the five key principles relied on by the DSB in development of the Access and Usage Agreement and fee model.

Principle	Brief Description
Cost Recovery	The DSB will provide all numbering agency services on a cost recovery basis. This means that the revenues must be sufficient to ensure that the numbering agency has the financial viability to meet its continuing obligation to provide these services. Furthermore, the funding model needs to be sustainable, which includes the need to be efficient and reliable.
Unrestricted Data	The DSB intends that no data associated with the definition of an ISIN will have licensing restrictions dictating usage or distribution. If the DSB Product Committee (http://www.anna-web.org/dsb-product-committee/) determines that there is no viable alternative to the use of licensed or restricted data in a product definition, the DSB will review the impact to its Unrestricted Data policy at that time, taking into account the specific products and attributes that are impacted by the incorporation of licensed or restricted data in the product definitions.
Open Access	Access to the DSB archive for consumption of OTC derivative ISINs and associated reference data will be available to all organizations and users.
Payment in Advance	To the extent possible, the DSB will levy fees through annual contracts that require payment in advance. This advance yearly commitment offers the DSB more clarity in aligning fee levels with cost recovery. For the users, it provides improved ability to forecast their costs for utilising ISIN services.
Equal Treatment	As an industry utility, the DSB aims to ensure parity and efficiency in delivery of our service. This includes following standardised processes and procedures for all users of the DSB operating under the cost recovery framework based service. The DSB has a common agreement in place ensuring equal treatment across all users. Any exceptions to the terms are only introduced on the basis that they can be consistently applied across all users without imposing a risk on the service.

4 Update on Activities Resulting from Prior Consultations

Industry participants' views were requested on several items in the course of previous consultations in 2019 and 2020 on subjects such as functionality, data submission enhancements, service availability and user agreement related enhancements. An update on these items is provided below.

4.1 Work Completed

1. **MIFID II (RTS2) Asset Class Mapping**
   The DSB undertook time-boxed analysis in 2020 to determine how a mapping between ISIN and MiFID II Taxonomy could be both created and maintained. The analysis was presented to the PC.
2. **ISIN to LEI mapping for CDS**
   The DSB undertook time-boxed analysis in 2020 to document the specific workflows required to source, integrate and publish additional LEI information as part of the associated OTC ISIN record. The analysis was presented to the PC who agreed that returning the LEI for an entered ISIN would provide marginal benefit at significant cost.
3. **Equity Index Name Mapping**
   The DSB undertook time-boxed analysis in 2020 to identify desired Equity Index data sources, examining workflows for integration and effort to implement a solution to allow publication of the data in OTC ISIN reference data records. The analysis was presented to the PC and although it was concluded that the reference data had substantial short-comings, an alternative golden source has not been forthcoming. Sourcing of indices is currently being examined as part of the UPI Reference Data project.
4. **Introduction of a new DSB user type - "Search Only API User"**
   This service is aimed at firms requiring low volume, read-only programmatic access to obtain OTC ISIN data on a bulk and same-day basis, for their internal processing and downstream reporting needs.
   The "Search-only API User" is able to submit up to 2,000 search requests a week, with 50 results returned at a time, for a fee set at 50% of the DSB Standard User charge. As with all DSB Users, the "Search-only API User" with search only API functionality has access to DSB end of day files and the DSB web-interface. Any fees earned from such a service, are used to offset the annual fees payable by existing DSB Users. The service was delivered in April 2022.
5. **Dynamic Enumerations**
   The DSB has undertaken further work in relation to the Dynamic Enumerations project. Changes to the system have been made to allow the normalised template versions to be loaded into the system replacing the existing denormalised templates. In addition, changes have been made to the data validation logic to make this more data driven with the aim of reducing the time taken to test the enumeration changes. These changes are due to be released into UAT environment in May 2022 with the production release to follow in June 2022. The TAC members have recommended that DSB users are given 12 months to migrate from the existing normalised templates, so the DSB will target the decommissioning of the denormalised templates from early June 2023. An option has also been added to allow DSB users to obtain a denormalised version of the product templates which is generated from the normalised versions. This should simplify the migration for users who encounter issues with any 3rd party tools used to process the product templates.

4.2 Work to be undertaken in 2022

The following initiatives are expected to commence in the course of 2022 with updates to be provided to the PC and the TAC, as relevant and noted in the prior consultation paper.

1. **Security Controls: Security Operations Centre**

   Following feedback from the TAC the DSB proposed to undertake analysis on the implementation of a Security Operations Centre.

   The analysis tasks include:

   - Reviewing the DSB's current monitoring, analysis and reporting structure
   - Provide a gap analysis of the DSB's existing SIEM infrastructure against what a Security Operations Centre would provide
   - Provide analysis on the cost, benefit and risks associated with either:
     - Utilising an in-house Security Operations Centre
     - Utilising a third part to manage the DSB Security Operations Centre

2. **Cloud Deployment Maturity**

   Following feedback from the TAC the DSB will undertake a detailed review of its cloud deployment and the roles and responsibilities of its Service Provision Partner (SPP).

   The DSB will undertake the following tasks:

   - Provide a detailed review of our current cloud deployment
   - Provide a review of our SPP service in relation to its contractual obligations
   - Provide a detailed cost benefit analysis of any proposed change

3. **Introduction of a "One-time data snapshots for download"**

   The DSB OTC ISIN Industry Consultation 2020 received approval for the development of a new service to provide users with an API-based method of accessing the DSB records contained in the End Of Day (EOD) download files. The rationale for this service was that the DSB currently only creates daily files containing new or changed records. There is no mechanism for new users to download all records efficiently. Also, there is no alternative mechanism for existing users to reconcile their internal databases with the DSB's master records other than by processing the individual set of files since the DSB began operations in 2017.

   User feedback received as part of the analysis for the implementation of the service, and especially with the TAC, pointed to a lighter touch model being more appropriate for the majority of DSB users, based on creating a snapshot file of the entire database on a regular interval and moving away from a more expensive API service.

   The TAC recommended a weekly snapshot, on the basis that it would provide value to both new users and existing users of the service at lower cost and improve user experience:

   - New users would not need to load daily snapshot files from the start of the DSB service (4+ years of daily files) in order to populate their internal databases with the relevant DSB records
   - Existing users would be able to reconcile their databases with the DSB's latest data snapshot – this functionality does not currently exist

   The weekly snapshot file would be made available on the same basis as the existing end of day files. This would mean that all DSB users, including free registered users, would have access to the files and the cost of the service would be added within the existing cost recovery service.

5 Consultation Considerations

The table below shows a summary of the consultation items with the build costs and any ongoing operating costs or savings in subsequent years.

		PROPOSED COST IMPACT
5.1 Error! Reference source not found.	Q1 - Global Agile Architecture	• 2023: € 625K • 2024: € 625K
5.2 Error! Reference source not found.	Q2 - Technology Controls: Tools	• 2023: € 155K
5.3 Error! Reference source not found.	Q3 - GUI Search Utility Improvements	• 2023: None • 2024: € 27K • 2025-2027: € 27K p.a. • 2028-: € 6K p.a.
5.4 Error! Reference source not found.	Q4 - Support for provision of CFI codes for EMIR	• 2023: None • 2024: € 14K • 2025-2027: € 14K p.a. • 2028-: € 4K p.a.
5.5 Error! Reference source not found.	Q5 - Removal of VPN Connectivity option from Cost Recovery	• 2023-: -€ 35K p.a.
5.6 Error! Reference source not found.	Q6 - Client Onboarding and Support Platform for OTC ISIN-only clients and clients subscribing to both OTC ISIN and UPI	• Not Applicable
TOTALS		• 2023: € 745K • 2024: € 631K • 2025-2027: € 6K p.a. • 2028-: -€ 25K p.a.

5.1 Q1 – Global Agile Architecture

Summary:

In 2021 the DSB and the TAC undertook two pieces of analysis as part of the 2020 Industry Consultation exercise. These questions related to the DSB's use of the cloud to implement its infrastructure and whether the DSB should consider moving to multiple cloud providers and/or multiple active regions. The analysis was overseen by a new subcommittee formed from the existing TAC members which is named the Cloud Architecture Subcommittee (CASC).

The TAC CASC produced six recommendations for the DSB to improve on its operational processes as a pre-requisite to these options or other possible solutions. The six recommendations are:

1. Agility
2. People
3. Process
4. Immutable Infrastructure (Cattle not pets)
5. Continuous Integration / Continuous Deployment
6. Connectivity

The TAC CASC recommendations were presented to the full TAC membership in April 2022 who approved the recommendations and requested incorporating this question into this industry consultation paper.

Question 1:

Should the DSB progress the TAC CASC recommendations to enhance the DSB's operational processes? The activity would be governed by the TAC and last for an initial period of two years, subject to review by the TAC.

Supporting Information:

Questions 5 and 6 of the industry consultation Final Report[7] from the DSB's 2020 Industry Consultation process posed the below questions which were approved for analysis in 2021 with the caveat that a subcommittee should be formed to oversee the analysis:

Q5 - Should the DSB perform a risk assessment on the current single cloud operations, together with a cost-benefit analysis of a potential move to a multi-cloud architecture?

Q6 - Should the DSB perform a risk assessment of its existing model of global connectivity from a single active geographical region, plus analysis of the costs and benefits of mitigating the identified risks?

The DSB formed a new Cloud Architecture Subcommittee (CASC) from the existing TAC membership. The CASC met five times to provide oversight to the analysis being undertaken by the DSB. The two questions were approached in different ways:

- The multi-cloud question was an RFI based approach, reaching out to several industry specialists in this area
- The multi-region question followed a risk-based approach

The recommendations from the CASC where summarized and presented to the full TAC membership in April 2022 - the paper is available on the DSB's website[8]. The full TAC approved the CASC

[7] https://www.anna-dsb.com/download/dsb-2021-consultation-final-report/

[8] https://www.anna-dsb.com/download/20220420-dsb-tac-report-public/

recommendations to move the DSB towards the strategic aims outlined on slide 14 in the paper. The TAC noted that if the remediation effort wasn't actioned in the short-term, then it was very likely that it would be required in the future, but at a higher cost.

The proposal introduces new governance around the work being undertaken, with the TAC in control of deciding which elements of the work to progress as well as undertaking regular reviews of the deliveries. The work is to be limited to a period of two years, with the TAC able to reduce that if required.

DSB Proposal for Next Steps:

Subject to industry feedback aligning with the TAC's recommendation, the DSB will work with the TAC in Q4 2022 to establish the governance around this work, ensuring any necessary changes are made to the TAC Charter[9] which commences a new term in October 2022. The DSB will commence work in January 2023 for an initial period of two years at the discretion of the TAC.

Cost estimates:

a) Capex: €0
b) Opex: €625k in 2023; €625K in 2024; None from 2025 onwards

5.2 Q2 – Technology Controls: Tools

Summary:

With increasing focus on cyber-threats to critical market infrastructures, the DSB has worked with the TAC and industry on its management of controls and associated risks. The DSB is constantly looking to improve its operational controls and automating through the use of enhanced tools would significantly help in the DSB's overall control position. The DSB is proposing to work with the TAC to undertake a detailed review of its enterprise tooling estate, to create a proposal to the TAC on how to mitigate cyber and operational risks by strengthening controls and improving visibility, automation and transparency.

Question 2:

Should the DSB perform a review of the current toolset in order to propose to the TAC options to strengthen its controls and improve visibility, automation and transparency?

Supporting Information:

The DSB previously submitted the request to review tooling as part of the 2021 Consultation process, question 3. Although there was no negative feedback the DSB decided to put this initiative on-hold for one year due to the large amount of work already planned.

The DSB would like to re-submit this question due to the increased focus on controls with regard the ongoing situation in Ukraine and the resulting increased cyber-threat to critical market infrastructures.

[9] https://www.anna-dsb.com/download/technology-advisory-committee-charter/

The DSB is working closely with industry on how the management of controls and associated risks.

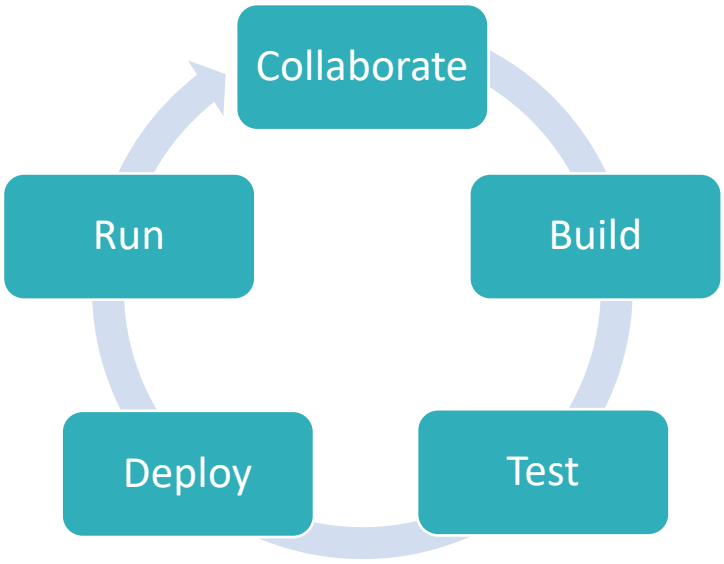
With this in mind, the DSB is proposing to carry out a detailed review of its enterprise tooling estate in an effort to understand how risks can be better mitigated by improving visibility, automation and transparency.

Controls should be multi-layered and predominantly fall into the following categories:

1. Directive – Written user guidance on what should and should not be done
2. Preventative – Technology controls that restrict what a user can do
3. Detective – Manage and monitor controls 1 & 2 to ensure policy is adhered to

This Consultation question focuses on "Preventative – Technology controls that restrict what a user can do" and "*Detective – Manage and monitor controls 1 & 2 to ensure policy is adhered to.*"

The review will aim to cover the entire technology lifecycle as depicted below.



DSB Proposal for Next Steps

Subject to positive feedback the DSB will work with the TAC in order to:

- Review current toolsets and understand if and how these tools and associated processes can be optimised to support increased operational controls, automation and visibility
- Provide a risk-based assessment of our existing detective control tools and propose and changes and improvements where required
- Provide a cost benefit analysis associated with any proposed change

Scope

Name of Tool/Service	Supplier	Country of Origin	Link to Website
Anisble	Anisble	USA (Owned by Redhat)	https://www.ansible.com/
Atlassian Bitbucket	Atlassian Bitbucket	Australia	https://www.atlassian.com/
Atlassian Confluence	Atlassian Confluence	Australia	https://www.atlassian.com/
Atlassian JIRA	Atlassian JIRA	Australia	https://www.atlassian.com/
Atlassian Service Desk	Atlassian Service Desk	Australia	https://www.atlassian.com/

	Auth0	USA	https://auth0.com/
Auth0 Enterprise	Auth0 Enterprise	USA	https://auth0.com/
Burp Suite	Burp Suite	UK	https://portswigger.net/burp
Canva	Canva	Australia	https://www.canva.com/
Cisco Webex (1)	Cisco Webex (1)	US	https://www.webex.com/
Crowdstrike Falcon	Crowdstrike Falcon	US	https://www.crowdstrike.com/
Cucumber	Cucumber	US (Owned by SmartBear)	https://cucumber.io/
DigiCert	DigiCert	US	https://www.digicert.com/
Download Manager	Download Manager	US	https://www.freedownloadmanager.org/
Elasticsearch Limited	Elasticsearch Limited	US	https://www.elastic.co/about/history-of-elasticsearch
ExactMetrics Plus	Monster Insights (ExactMetrics Plus)	US	https://www.monsterinsights.com/
Fix Conductor (ITIVITI)	Fix Conductor (ITIVITI)	Sweden	https://www.itiviti.com/
	Gotham Digital Sciences	UK	https://www.gdssecurity.com/
	Grammarly WP	US	https://www.grammarly.com/
Skedler	Guidanz Inc	US	https://www.guidanz.com/ https://www.skedler.com/
Hashicorp Packer	Hashicorp Packer	US	https://www.packer.io/
Jenkins	Jenkins	US	https://www.jenkins.io/
JFrog Artifactory	JFrog Artifactory	US	https://jfrog.com/artifactory/
JFrof Xray	JFrog	US	https://jfrog.com/
	Jumpsec Ltd	UK	https://www.jumpsec.com/
	Marcus Evans	UK	https://www.marcusevans.com/home
Microsoft Teams	Microsoft Teams	US	https://www.microsoft.com/en-gb/microsoft-teams/log-in
Ninja	Ninja	US	https://www.ninjaone.com/
Piktochart	Piktochart	Malaysia	https://piktochart.com/
SOLR	SOLR	US	https://solr.apache.org/
SonarQube Scanner	SonarQube Scanner	Switzerland	https://sonarcloud.io/
Terraform	Terraform	US	https://www.terraform.io/
TestRail	TestRail	Germany	https://www.gurock.com/testrail/
	VPN - Manila DSN Environments	Manila	N/A
VPN - MyIP.IO	VPN - MyIP.IO	US	https://www.myip.io/
Zabbix-Agent	Zabbix-Agent	Lativia	https://www.zabbix.com/about
Zabbix-Server	Zabbix-Server	Lativia	https://www.zabbix.com/about
Zookeeper	Apache Zookeeper	US	https://www.apache.org/
Zoom	Zoom	US	https://zoom.us/
Zscaler	Zscaler	US	https://www.zscaler.com/

Cost estimates:

a) Capex: None
b) Opex: €155K in 2023; None from 2024 onwards

5.3 Q3 – GUI Search Utility Improvements

Summary:

The existing DSB Graphical User Interface (GUI) provides a search facility that enables the retrieval of OTC ISIN records and their associated reference data using a query script. This query script is designed for use by IT professionals and developers.

The DSB has received feedback that many end users do not have the professional support to enable them to run queries via the GUI. For example, there is no simple mechanism for a user to request the details of an OTC ISIN because the entry of an OTC ISIN in the search box will return the details of the requested OTC ISIN along with all other records that included the entered OTC ISIN as an underlying asset. Additionally, GUI users are limited in the number of records that are returned, which means that the search results may not provide the actual OTC ISIN record amongst the list of returned records.

In response to a 2020 industry consultation[10] request, the DSB proposed enhancements to the search facilities that would allow a user to search the DSB's database without the need for professional technical support. The DSB PC has reviewed the proposed design and approved its implementation.

Question 3:
Should the DSB implement the DSB PC approved functionality to allow end users to more easily search the OTC ISIN database via the DSB Graphical User Interface (GUI)?

Supporting Information
In addition to the existing search facility, the DSB proposed the development of two new search pages on the DSB GUI:

- **Search by ISIN**: The user inputs a valid "EZ" ISIN and the data elements of the entered OTC ISIN are returned.
- **Search by Attributes**: The user is able to filter the list of OTC ISINs through the main OTC attributes: Asset Class, Instrument Type, Product, CFI Code, Expiry Date and Status.

The query results are presented as a list with the ability to view or download the details of a selected OTC ISIN.

Some example screenshots are shown in 6.3 Appendix 3 – GUI Search Screenshots.

DSB Proposal for Next Steps

If industry is supportive of the PC-approved proposal, the DSB will develop and deploy the documented solution in 2023, with oversight from the PC and the TAC as appropriate.

Cost estimates:

a) Capex: €84K
b) Opex: €6K per annum

Impact on DSB total costs: €0K in 2023; €27K in each year in 2024-2027; €6K from 2028 onwards

[10] https://www.anna-dsb.com/2020-user-fee-and-user-agreement-consultations/

5.4 Q4 – Support for provision of CFI codes for EMIR

Summary:

Industry has asked the DSB to investigate the effort required to provide a CFI generation service for OTC derivative products in scope for EMIR, so that CFI codes can be obtained without the need to generate the OTC ISIN or the OTC ISIN data record.

This functionality is already available to ReST and FIX API users, but is not currently available through the DSB GUI.

The DSB has completed the analysis to extend this functionality to the GUI and has presented the proposed solution to the PC who support the design and implementation of the proposed enhancement.

Question 4:

Should the DSB extend the GUI functionality to allow the user to input a request message that will return the product's CFI without generating an OTC ISIN?

Supporting Information:

Through the DSB GUI, the user will populate the input template and the GUI will allow users to choose whether to retrieve ISIN details (without creating the OTC ISIN) or to retrieve (and create) an ISIN.

If the user chooses to retrieve the ISIN without creation, the system will check whether a matching ISIN exists. If it does exist, the full record (including the ISIN and CFI will be returned). If a matching ISIN does not exist, the system will return the full record with the CFI Code but without the ISIN - since it will not have been generated by the request.

This functionality is currently available to ReST and FIX API Users but not to GUI Users.

DSB Proposal for Next Steps

If the industry is supportive of the above functionality, the DSB will develop and deploy the documented solution, with oversight from the PC and TAC as appropriate.

Cost estimates:

a) Capex: €40K

b) Opex: €4K per annum

Impact on DSB total costs: €0K in 2023; €14K in each year in 2024-2027; €4K from 2028 onwards.

5.5 Q5 – Removal of VPN Connectivity option from Cost Recovery

Summary:

The DSB currently provides users the option of connecting to its API services over the internet via a Virtual Private Networking (VPN) solution. However, out of the DSB's 72 Production API users, only 2 are using this option to connect. For UAT, there are 31 API users and again only 2 users connect via

VPN. The cost of providing this connectivity option is currently within the DSB's Cost Recovery ring-fence, which means these costs are recovered from all users of the DSB and not just the 4 users who are utilising the VPN service.

The current annual infrastructure run costs for this option are approximately €35K. In order to ensure a fair allocation of costs, the DSB is proposing to make the VPN solution an optional commercial service outside the Cost Recovery ring fence. The impact of this move would be to lower the cost base of the DSB that is within the cost recovery ring fence by €35K.

Question 5:

Should the DSB remove the VPN connectivity option from the Cost Recovery model and instead make it an optional commercial service?

Supporting Information:

The DSB has seen a significant reduction in the number of users connecting to the OTC ISIN Service via Virtual Private Network (VPN) connectivity. There are currently two organisations connecting to Production via this option. However, all DSB users are contributing to the cost of this connectivity option because it is within the DSB's cost recovery ring-fence. The breakdown of the different connectivity types within the cost recovery ring-fence for Production is as follows:

Environment	TLS	VPN	Total
Production	70	2	72

The above figures show the number of legal organisations programmatically connecting to the DSB's Production environment, including intermediary connections.

The DSB already offers an optional connectivity service for users who wish to connect to the DSB's API service via BT Radianz[11]. Existing DSB users do not contribute to the costs of providing the BT Radianz service because it is not within the DSB's cost recovery ring-fence. The DSB proposes to follow the same model for VPN connectivity. This way only the users that require the service would pay for it. The DSB would undertake this migration from its existing resourcing and therefore the full cost saving of €35K p.a. associated with this re-classification can be passed to DSB's users.

DSB Proposal for Next Steps:

Subject to positive industry feedback, the DSB will reclassify the optional VPN connectivity solution from cost recovery to a commercial service. The DSB will work directly with the 4 users who will be impacted.

Cost estimates:

The changes would be undertaken with existing resources and would result in a reduction of €35K in operating costs each year from 2023 onwards.

[11] https://www.anna-dsb.com/download/dsb-bt-radianz-connectivity-service/

5.6 Q6 – Client Onboarding and Support Platform for OTC ISIN-only clients and clients subscribing to both OTC ISIN and UPI

Summary:

As detailed in the DSB Legal Terms and Conditions Consultation Final Report[12], the DSB is currently implementing the Client Onboarding and Support Platform (COSP) to provide fee-paying UPI users with a streamlined and scalable on-boarding and user management self-service portal for administration of their UPI Services. Since the outset of the UPI project, the TAC has been consulted on and provided oversight for the rationale for the UPI Scalability proposal, the selection of technology solutions to underpin the COSP (Salesforce, Auth0 and FixSpec), and the duration of the UAT phase prior to the launch of the UPI Production Service. Most recently, at the TAC meeting on 23rd March 2022, key COSP design decisions for the UPI Service were presented[13] (p31-34). The TAC reviewed and were supportive of the design decisions.

When the COSP and UPI Service are launched, new and existing users of the OTC ISIN Service will continue to use the existing manual OTC ISIN processes to onboard and manage their relationship with the DSB. The COSP will initially only be available to UPI Service users.

The DSB is aware that some users will wish to utilise both the UPI Service and the OTC ISIN Service. For such users, utilising two separate on-boarding and administration models to engage with the DSB's services may result in additional complexity and duplication of data and processes. DSB users who only require the OTC ISIN Service will be left with the existing manual process without the option of accessing the streamlined user portal available to UPI users. Should the impending implementation of EMIR result in significant numbers of additional OTC ISIN users, this could negatively impact the DSB's cost structure given the manual processes involved in the existing OTC ISIN system would require increased resourcing.

The DSB and the TAC are currently building a roadmap for a potential roll-out of the COSP to OTC ISIN users to address these identified challenges.

Question 6:

The DSB has no specific questions on this matter on the basis that any action taken by the DSB or the TAC will have no impact on 2023 costs. However, the DSB welcomes any general feedback from industry on the potential roll-out of the COSP to OTC ISIN users, which can be taken into consideration by the DSB as part of their deliberations, with ongoing oversight from the TAC.

Supporting Information:

The COSP will launch at the same time as the launch of UAT for the UPI Service to enable UPI Service users to commence the onboarding process (e.g. set-up their GUI permissions) to be able to take part in UAT and ensure readiness for Go Live of the UPI Service in Production.

The onboarding process on the COSP consists of a series of steps and screens in which each organisation is able to manage their own data and on-board/off-board/permission their own users. This process enables each organisation to have control of their own organisation's data, without

[12] https://www.anna-dsb.com/upi-legal-terms-and-conditions-consultation/
[13] https://www.anna-dsb.com/download/20220323-dsb-tac-report-member-final/

needing to email or contact DSB technical support. This data includes being able to act on sensitive information such as terminating a user once they leave the organisation.

When the COSP and UPI Service are launched, new and existing users of the OTC ISIN Service will continue to use the existing manual OTC ISIN processes to onboard and manage their relationship with the DSB. The COSP will initially only be available to UPI Service users. As a result, users of a combined OTC ISIN Service and UPI Service will use the existing OTC ISIN processes to manage their OTC ISIN Service, and the COSP to manage their UPI Service. Questions about the UPI Service will be processed via COSP, and queries about the OTC ISIN Service will continue to be processed using the existing ad-hoc processes.

DSB Proposal for Next Steps

The DSB will work with the TAC in order to:

- Create a cost-benefit analysis for extension of the COSP to the OTC ISIN Service
- Finalise the roadmap for a potential OTC ISIN COSP implementation
- Review feedback from industry resulting from this consultation
- Draft a recommendation for approval by the full TAC and by the DSB Board, underpinned by the cost benefit analysis, the roadmap and industry feedback

5.7 Any other comments

This section is an opportunity for respondents to provide feedback and commentary on any other aspects they believe should be considered.

6 Appendices

6.1 Appendix 1 - Cost Basis 2022

Annual user fees recover the DSB overhead costs. The total estimated annual overhead upon which the cost-recovery fees were calculated for 2022 is €9,46K, which is in line with the amount previously communicated[14]. The fee calculation was based on the contracts in force as of 1 October 2021 and the user categories those contracts represent. Excess revenues caused by additional contracts signed after 1 January 2022 will go to defraying user fees for the next contract year following completion of the 2022 financial audit.

The tables below show the breakdown of the 2022 Estimated Total DSB Cost of €9,46K on 6 October 2021, following feedback received as part of the industry consultations in 2021 and include a 20% margin for financial sustainability:

Category (Recurring)	Description	Amount
Technology & Operations	Operation of the DSB platform including technical and asset class support	€7,694K
Management	Senior management team including MD, MSP management team and CFO	€872K
Administration	Administrative costs and overheads such as office space, travel and expenses and administrative support functions	€994K
External consultants	External oversight and legal, professional & communication	€510K
Previous Year Operating Expenditure Adjustment	**Excess Fee Income reduction based on the DSB Statutory Accounts 2020**	**-€1,117K**
Total		**€8,953K**

Category (Time-limited)	Description	Amount
Build Costs / Capex	Amortization of build costs 2016-2019	€511K
Total		**€511K**

[14] https://www.anna-dsb.com/fee-model-variables/

6.2 Appendix 2 - Principles for Excess Fee Income Redistribution

The following principles will guide the use of any excess fee income received by the DSB – primarily generated because of late joiners and/ or mid-cycle upgrades but, also due to operational savings:

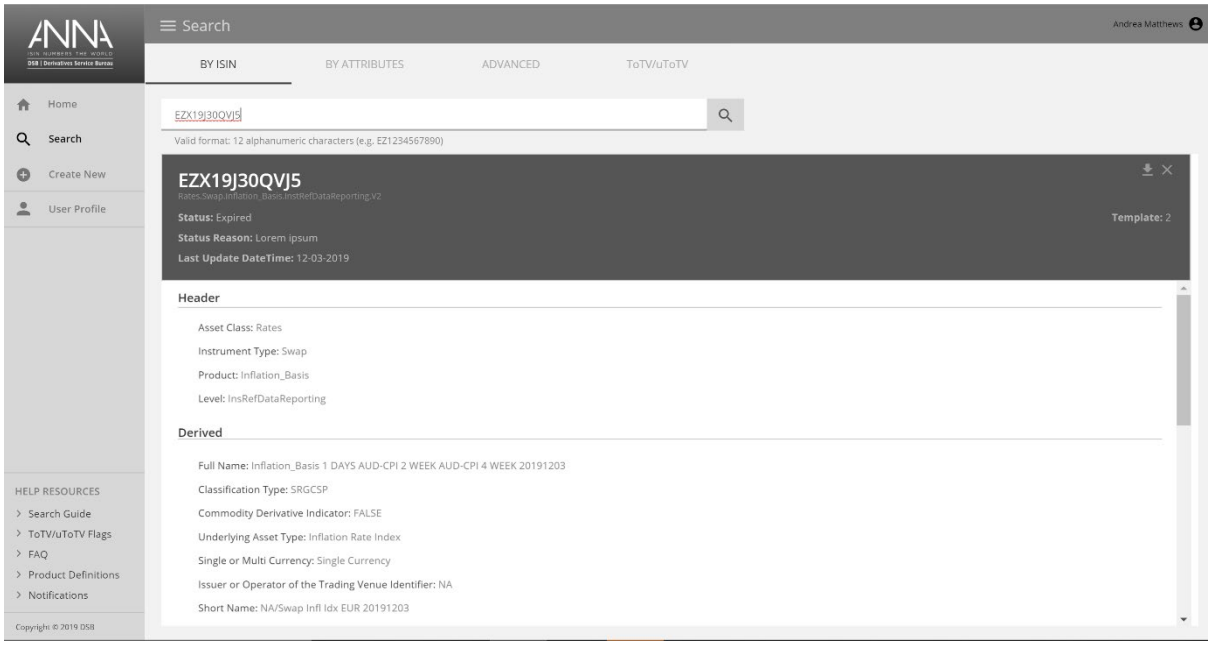
- 100% of the excess fee income will be passed back to DSB fee-paying Users
- The mechanism used to address any excess fee income received by the DSB should be simple and transparent

Excess Fee Income will be used to reduce the costs of the DSB for the year following the audited financial accounts and, will form part of the fee model variables to be fixed on the day as notified by DSB which shall in be no later than the end of the first Working Day in December each year. The DSB assumes that most users will roll their annual contracts with the utility.

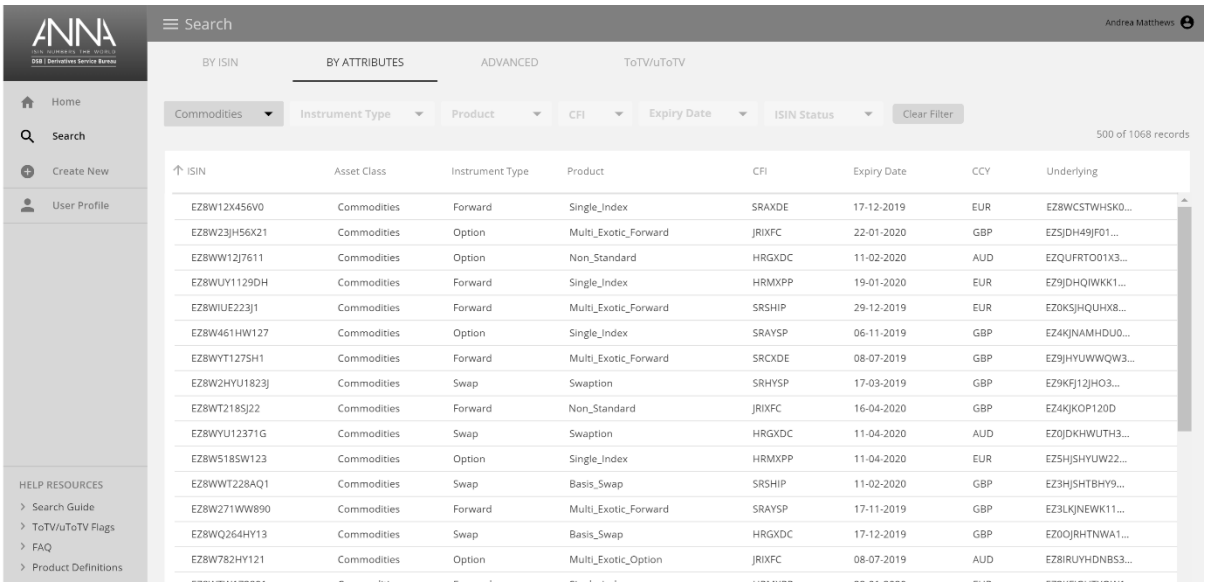
Annual fees are currently determined in the first week of October.

6.3 Appendix 3 – GUI Search Screenshots

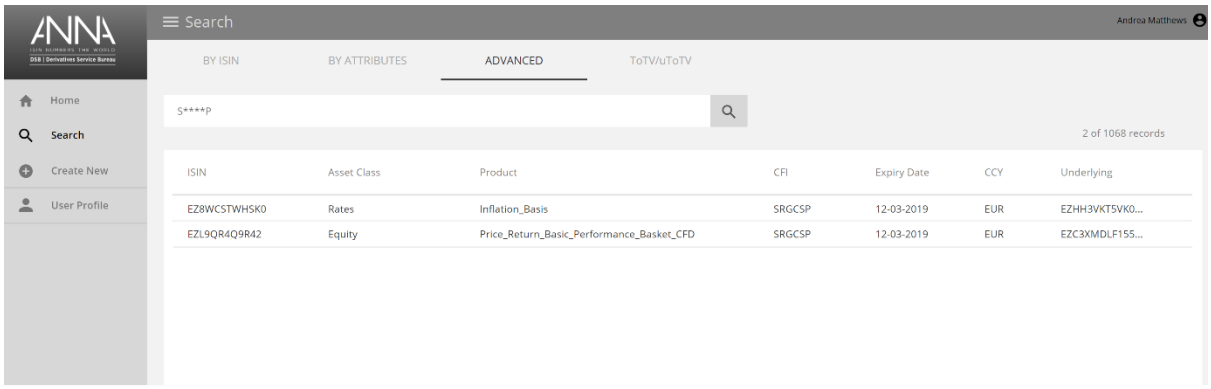
6.3.1 Search by ISIN



6.3.2 Search by Attributes



6.3.3 Advanced Search (unchanged)



7 Consultation Response Form for Industry

Proposed Format for Industry Responses to the DSB Consultations:

- Consultation responses should be completed using the form below and emailed to industry_consultation@anna-dsb.com
- An option is provided for respondents to stipulate whether the response is to be treated as anonymous. Note that all responses are published on the DSB website and are not anonymized unless a specific request is made
- Where applicable, responses should include specific and actionable alternative solution(s) that would be acceptable to the respondent to ensure that the DSB can work to reflect the best target solution sought by industry (within the governance framework of the utility)
- As with prior consultations, each organization is permitted a single response
- Responses should include details of the type of organization responding to the consultation and its current user category to enable the DSB to analyse client needs in more detail and include anonymized statistics as part of the second consultation report
- Responses must be received by 5pm UTC on Monday 30th May 2022
- A webinar to address consultation related queries will take place on Wednesday 11th May 2022. Register for the webinar here.
- All consultation related queries should be directed to industry_consultation@anna-dsb.com

Respondent Details

Name	
Email Address	
Company	
Country	
Company Type	Data Vendor
User Type	Power
Select if response should be anonymous	x
Company	
Country	
Company Type	Multilateral Trading Facility (MTF)
User Type	Power
Company	

Country	
Company Type	Multilateral Trading Facility (MTF)
User Type	Power

Q#	QUESTION FOR CONSULTATION	PARTICIPANT'S RESPONSE
1	**Summary:** In 2021 the DSB and the TAC undertook two pieces of analysis as part of the 2020 Industry Consultation exercise. These questions related to the DSB's use of the cloud to implement its infrastructure and whether the DSB should consider moving to multiple cloud providers and/or multiple active regions. The analysis was overseen by a new subcommittee formed from the existing TAC members which is named the Cloud Architecture Subcommittee (CASC). The TAC CASC produced six recommendations for the DSB to improve on its operational processes as a pre-requisite to these options or other possible solutions. The six recommendations are: 1. Agility 2. People 3. Process 4. Immutable Infrastructure (Cattle not pets) 5. Continuous Integration / Continuous Deployment 6. Connectivity The TAC CASC recommendations were presented to the full TAC membership in April 2022 who approved the recommendations and requested incorporating this question into this industry consultation paper. **Question 1:**	Response: It is our position that reviews of cloud storage system are warranted and necessary but fall under the standard operating costs of the business and should already be factored into the DSB's cost of doing business. It is unclear why there should be such a significant cost associated with what are general enhancements that come with running such a business.

Q#	QUESTION FOR CONSULTATION	PARTICIPANT'S RESPONSE
	Should the DSB progress the TAC CASC recommendations to enhance the DSB's operational processes? The activity would be governed by the TAC and last for an initial period of two years, subject to review by the TAC.	
2	**Summary:** With increasing focus on cyber-threats to critical market infrastructures, the DSB has worked with the TAC and industry on its management of controls and associated risks. The DSB is constantly looking to improve its operational controls and automating through the use of enhanced tools would significantly help in the DSB's overall control position. The DSB is proposing to work with the TAC to undertake a detailed review of its enterprise tooling estate, to create a proposal to the TAC on how to mitigate cyber and operational risks by strengthening controls and improving visibility, automation and transparency. **Question 2**: Should the DSB perform a review of the current toolset in order to propose to the TAC options to strengthen its controls and improve visibility, automation and transparency.	Response: It is our position that this review falls under the standard operating costs of running a technology platform, especially, given this is a question of reviewing the current toolset as opposed to implementation of new processes. The review of your toolset, processes and procedures should be factored in as a cost of a doing business already.
3	**Summary:** The existing DSB Graphical User Interface (GUI) provides a search facility that enables the retrieval of OTC ISIN records and their associated reference data using a query script. This query script is designed for use by IT professionals and developers. The DSB has received feedback that many end users do not have the professional support to enable them to run queries via the GUI. For example, there is no simple mechanism for a user to request the details of an OTC ISIN because the entry of an OTC ISIN in the search box will return the details of the requested OTC ISIN along with all other records that included the entered OTC ISIN as an underlying asset. Additionally, GUI users are limited in the number of records that are returned, which means that the search results may not provide the actual	Response: It is our position that while this does not impact our use of the DSB's OTC ISIN services as we do not access the system via GUI, we can understand the differing needs of the various users across the industry. However, the costs associated with implementing this should only be applied to those specific users that require the service.

Q#	QUESTION FOR CONSULTATION	PARTICIPANT'S RESPONSE
	OTC ISIN record amongst the list of returned records. In response to a 2020 industry consultation[15] request, the DSB proposed enhancements to the search facilities that would allow a user to search the DSB's database without the need for professional technical support. The DSB PC has reviewed the proposed design and approved its implementation. **Question 3:** Should the DSB implement the DSB PC approved functionality to allow end users to more easily search the OTC ISIN database via the DSB Graphical User Interface (GUI)?	
4	**Summary:** Industry has asked the DSB to investigate the effort required to provide a CFI generation service for OTC derivative products in scope for EMIR, so that CFI codes can be obtained without the need to generate the OTC ISIN or the OTC ISIN data record. This functionality is already available to ReST and FIX API users, but is not currently available through the DSB GUI. The DSB has completed the analysis to extend this functionality to the GUI and has presented the proposed solution to the PC who support the design and implementation of the proposed enhancement. **Question 4:** Should the DSB extend the GUI functionality to allow the user to input a request message that will return the product's CFI without generating an OTC ISIN?	Response: It is our position that the costs associated with this enhancement should be borne by those specific users who are impacted and require the change.
5	**Summary:** The DSB currently provides users the option of connecting to its API services over the internet via a	Response: We support the DSB's removal of the VPN connectivity option from the Cost Recovery model and instead making it an

[15] https://www.anna-dsb.com/2020-user-fee-and-user-agreement-consultations/

Q#	QUESTION FOR CONSULTATION	PARTICIPANT'S RESPONSE
	Virtual Private Networking (VPN) solution. However, out of the DSB's 72 Production API users, only 2 are using this option to connect. For UAT, there are 31 API users and again only 2 users connect via VPN. The cost of providing this connectivity option is currently within the DSB's Cost Recovery ring-fence, which means these costs are recovered from all users of the DSB and not just the 4 users who are utilising the VPN service. The current annual infrastructure run costs for this option are approximately €35K. In order to ensure a fair allocation of costs, the DSB is proposing to make the VPN solution an optional commercial service outside the Cost Recovery ring fence. The impact of this move would be to lower the cost base of the DSB that is within the cost recovery ring fence by €35K. **Question 5:** Should the DSB remove the VPN connectivity option from the Cost Recovery model and instead make it an optional commercial service?	optional commercial service for those specific users that may require that type of connection.
6	**Summary:** As detailed in the DSB Legal Terms and Conditions Consultation Final Report[16], the DSB is currently implementing the Client Onboarding and Support Platform (COSP) to provide fee-paying UPI users with a streamlined and scalable on-boarding and user management self-service portal for administration of their UPI Services. Since the outset of the UPI project, the TAC has been consulted on and provided oversight for the rationale for the UPI Scalability proposal, the selection of technology solutions to underpin the COSP (Salesforce, Auth0 and FixSpec), and the duration of the UAT phase prior to the launch of the UPI Production Service. Most recently, at the TAC meeting on 23rd March 2022, key COSP design decisions for the UPI Service were presented[17] (p31-34). The TAC reviewed and were supportive of the design decisions.	Response: We agree with the proposed streamlined approach but reiterate our prior stance that certain actions required to be completed via the COSP should be determined based on user type.

[16] https://www.anna-dsb.com/upi-legal-terms-and-conditions-consultation/
[17] https://www.anna-dsb.com/download/20220323-dsb-tac-report-member-final/

Q#	QUESTION FOR CONSULTATION	PARTICIPANT'S RESPONSE
	When the COSP and UPI Service are launched, new and existing users of the OTC ISIN Service will continue to use the existing manual OTC ISIN processes to onboard and manage their relationship with the DSB. The COSP will initially only be available to UPI Service users. The DSB is aware that some users will wish to utilise both the UPI Service and the OTC ISIN Service. For such users, utilising two separate on-boarding and administration models to engage with the DSB's services may result in additional complexity and duplication of data and processes. DSB users who only require the OTC ISIN Service will be left with the existing manual process without the option of accessing the streamlined user portal available to UPI users. Should the impending implementation of EMIR result in significant numbers of additional OTC ISIN users, this could negatively impact the DSB's cost structure given the manual processes involved in the existing OTC ISIN system would require increased resourcing. The DSB and the TAC are currently building a roadmap for a potential roll-out of the COSP to OTC ISIN users to address these identified challenges. **Question 6:** The DSB has no specific questions on this matter on the basis that any action taken by the DSB or the TAC will have no impact on 2023 costs. However, the DSB welcomes any general feedback from industry on the potential roll-out of the COSP to OTC ISIN users, which can be taken into consideration by the DSB as part of their deliberations, with ongoing oversight from the TAC.	
7	Please use this space for any other comments you wish to provide	