

Digital Token Identifier Foundation (DTIF)

✉ secretariat@dtif.org
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Dear Sir / Madam,

Consultation Paper on the Technical Standards specifying certain requirements of MiCA (2nd package)

The [Digital Token Identifier Foundation \(DTIF\)](#)¹ and its Product Advisory Committee (PAC) welcome the opportunity to respond to ESMA's consultation paper '[Technical Standards specifying certain requirements of Markets in Crypto Assets Regulation \(MiCA\) - second consultation paper](#)' (hereafter called the 'consultation paper') to develop technical standards and guidelines for the Regulation on markets in crypto-assets (MiCA).

As stated within the consultation paper, the DTIF is the Registration Authority for the International Organization for Standardization (ISO) 24165 Digital Token Identifier (DTI) standard², an ISO standard that enables the unique identification of all fungible digital assets which use distributed ledger technology (DLT) for token issuance, storage, exchange, a record of ownership, or transaction validation. The DTI itself comprises a code - a random, unique combination of nine alphanumeric characters allocated to a digital token - and a record of data relevant to that token (the reference data), which sits behind the code and is held by the DTIF. The reference data provides information about the DLT on which the token is deployed, as well as token technical attributes (such as address, name(s) and any external identifiers).

The DTIF's mission is to provide the golden source reference data for the unique identification of digital tokens. The DTIF issues and maintains DTIs on a non-profit basis, to increase transparency in the digital asset space by creating a core reference data set based on open data principles and made available as a public good.

¹ The DTI Foundation is a non-profit division of Etrading Software Limited: <https://etradingsoftware.com/>

² [ISO 24165-1:2021](#) and [ISO 24165-2:2021](#), Digital token identifier (DTI)

The DTIF welcomes ESMA's proposed approach to use globally recognised ISO standards within the proposed Regulatory Technical Standards (RTS) and Implementing Technical Standards (ITS) set out within the consultation paper. The DTI Foundation is prepared to support the implementation of the ISO 24165 DTI standard to identify crypto assets under MiCA, as set out within the RTS and ITS. The ISO 24165 DTI standard has been created for the specific purpose of providing a unique and unambiguous identification for digital tokens and DLT networks based on objective and publicly verifiable technical attributes. As highlighted within the consultation paper, use of the DTI standard benefits both market participants and regulators by improving efficiencies in activities based on distributed ledger and blockchain technologies. Consistent regulatory reporting standards are essential for investor protection, market oversight, and market efficiency. The DTIF believes that the use of the ISO 24165 DTI standard, in conjunction with other ISO standards mandated by regulators in traditional finance (e.g. ISIN), will help to improve the consistency and accuracy of regulatory reporting in the crypto-asset market.

The DTI Foundation welcomes industry stakeholders to engage with development of the ISO 24165 standard. ISO 24165 was developed by the ISO [subcommittee SC 8](#) *Reference data for financial services* of the ISO/TC 68 *Financial Services* technical committee as a new standard to address the need to identify digital tokens issued, traded, settled or stored across distributed ledger networks. The DTI Foundation's PAC aims to ensure the standard is consistent with evolving market and regulatory requirements. Stakeholders are encouraged to apply to join the PAC.

We have confined our specific responses to questions 24, 27, 30, 37, 38, 41, and 68 which relate to the following sections as these are directly relevant to the DTIF's remit.

- (i) Offering pre- and post-trade data to the public
- (ii) Record keeping obligations for CASPs, and
- (iii) Machine readability of white papers and white papers register.

We are at your disposal to answer any questions you may have and would welcome the opportunity to discuss the DTI ISO standard further with ESMA and market stakeholders. Please do not hesitate to contact us at secretariat@dtif.org.

Offering pre- and post-trade data to the public

Q24: Do you agree with ESMA's proposals on the description of the pre-trade information to be disclosed (content of pre-trade information) under Table 2 of Annex I of the draft RTS? If not, please explain why. If yes, please clarify whether any elements should be amended, added and/or removed.

We welcome the use of globally recognised ISO standards within the description of pre-trade information to be disclosed, including the ISO 24165 DTI standard for the identification of the crypto-asset with the two fields {DTI} and {DTI_SHORT_NAME} under Table 2 of Annex I of the draft RTS. These two data points will (i) provide the unique token identifier code, and (ii) provide a recognisable short name (e.g., BTC) captured under the ISO 24165 standard.

Although DTI short names provide a recognisable code, they are not unique, and the standard allows for a list of multiple short names as an informative field within the DTI Registry. There is currently no industry agreed standard for short names, or 'tickers', for crypto-assets – these are not unique across different ledgers and any person or organisation can designate a short name to a token. For this reason, the DTI code is the only international standard to uniquely identify crypto-assets.

Based on a consultation with ESMA, the DTI Foundation will create an additional field not currently defined within the ISO 24165 standard called DTIF Ticker which will be unique and based on the short code that is most commonly used by crypto exchanges & market data aggregators (e.g., BTC for Bitcoin, USDT for Tether USD, etc.). The governance for this new field will follow the existing DTIF governance model, to be finalised in consultation with ESMA and the DTIF Product Advisory Committee by the end of Q1 2024.

We recognise ESMA has noted a 'crypto-asset full name' to be reported for pre- and post-trade transparency, among other purposes. Depending on the intended purpose of the field, ESMA may consider the DTI_LONG_NAME as an appropriate value for this piece of data requested. Although the DTI_LONG_NAME is an informational attribute with no uniqueness, similar to the DTI short name, it provides a recognisable name regularly used by industry participants (e.g., Bitcoin, Ethereum). It could also streamline the resource needs for organisations reporting under MiCA if this information is obtained from the same source as the DTI code and short name. Use of the DTI_LONG_NAME would also remove data usability issues typically associated with free-text field formatting, such as the use of special characters, non-Latin characters, etc. Additionally, DTIF is working with ANNA to link the DTI_LONG_NAME and FISN to create a standardised human-readable format covering all tokens.

Reference: The ISO 24165 standard is embedded within the below field identifiers under Table 2 of Annex I of the draft RTS on trade transparency:

- Crypto-asset identification code {DTI}
- Price currency {DTI_SHORT_NAME}
- Quantity currency {DTI}

Q27: Do you agree with the proposed list of post-trade information that trading platforms in crypto assets should make public in accordance with Tables 1, 2 and 3 of Annex II of the draft RTS? Please provide reasons for your answers.

We welcome the use of globally recognised ISO standards within the proposed list of post-trade information to be made public, including the ISO 24165 DTI standard for the identification of the crypto asset with the two fields {DTI} and {DTI_SHORT_NAME} under Tables 1 and 2 of Annex II of the draft RTS. These two data points will (i) provide the unique token identifier code, and (ii) provide a recognisable short name (e.g., BTC) captured under the ISO 24165 standard.

As mentioned in our response to question 24, DTI short names are recognisable but lack uniqueness, serving only as informative fields in the DTI Registry. The absence of an industry standard for crypto asset tickers results in variations across exchanges, allowing any entity to assign any short name even it's already in use. Although DTI code remains the sole ISO standard for uniquely identifying crypto assets, DTIF proposes to use DTIF Tickers as additional identifier (for more information, see answer to Question 24).

As mentioned in our response to question 24, ESMA requires reporting of a 'crypto-asset full name' for pre- and post-trade transparency, among other purposes. Depending on the field's intended use, ESMA may deem the DTI_LONG_NAME suitable for this data. While the DTI_LONG_NAME lacks uniqueness, similar to the short name, it offers a recognizable label commonly used by industry participants (e.g., Bitcoin, Ethereum). Additionally, using the DTI_LONG_NAME from the same source as the DTI code and short name could streamline resource requirements for organisations reporting under MiCA.

Reference: The ISO 24165 standard is embedded within the below field identifiers under Tables 1, and 2 of Annex II of the draft RTS on trade transparency:

- Crypto-asset identification code {DTI}
- Price currency {DTI_SHORT_NAME}

Q30: Do you expect any challenges for trading platforms in crypto assets to obtain the data fields required for publication to comply with pre- and post-trade transparency requirements under Annex I and Annex II of the draft RTS?

Our response is focused on those data fields relating to the ISO 24165 DTI standard.

All data fields outlined within Annex I and Annex II of the draft RTS on transparency requirements relating to the ISO 24165 DTI standard are accessible via the DTI Registry.

For crypto-assets already captured within the DTI Registry, data is available via search functionality within the DTI webpage. The DTI Foundation also offers a free service to download a historical snapshot of the entire DTI registry in JSON format. The contents of the snapshot are refreshed monthly with new tokens and amendments processed in the previous month. Daily incremental files and API read connectivity services are also available as auxiliary services.

For crypto-assets not yet captured by the DTI registry, any stakeholder can submit a request via the DTI Webpage to create a DTI code for new or emerging ledgers and tokens quickly and efficiently to maintain standardised identification. The DTI Foundation also provides an Interactive JSON Explorer (DTI-IJE), a Web browser-based reference for the DTI Digital Token Templates required for DTI creation depending on the type of token requested. Submission and allocation timings continue to be developed by the DTIF for streamlined processing.

The DTI Foundation serves as the designated Registration Authority for ISO 24165. Any fees charged confirm to ISO governance requirements of fair, reasonable, and non-discriminatory (FRAND) principles founded on a cost-recovery basis, consistent with ISO 24165 specifications.

Record keeping obligations for CASPs (RTS on content and format of order book records, and RTS on record-keeping by crypto-asset service providers)

Q37: Do you agree with using the DTI for uniquely identifying the crypto-assets for which the order is placed or the transaction is executed? Do you agree with using DTI for reporting the quantity and price of transactions denominated in crypto-assets?

We welcome the use of the globally recognised the ISO 24165 DTI standard for the identification of the crypto-asset for both RTS on content and format of order book records, and RTS on record-keeping by crypto-asset service providers.

As outlined in page 43 of the consultation paper, an International Securities Identification Number (ISIN), defined by ISO 1066, was designed to capture economic characteristics of financial instruments, and

therefore does not account for the technical aspects related to the DLT on which the crypto-asset is stored or traded, which are all features that NCAs should have visibility on. Where the ISIN identifies the asset, which has historically always been the case and will continue to be, the DTI uniquely identifies the implementation of the token on a DLT. For this reason, the DTI the DTI also serves as a standardised reference for reporting of the quantity and price of transactions denominated in crypto-assets.

Reference: The ISO 24165 standard is embedded within the below field identifiers:

RTS on content and format of order book records

Annex 1 Table 2: Details of orders to be kept

- Crypto-asset identification code {DTI}
- Price currency {DTI} for e-money token, {DTI_SHORT_NAME} for crypto assets in a currency pair
- Quantity currency {DTI}

Annex 1 Table 3: On-chain data

- Token ID {DTI}
- Currency {DTI}

RTS on record-keeping by crypto-asset service providers

Annex II Table 2: Details of orders to be kept

- Crypto-asset identification code {DTI}
- Price currency {DTI} for e-money token, {DTI_SHORT_NAME} for crypto assets in a currency pair
- Quantity currency {DTI}

Annex II Table 4: Records of transactions

- Quantity currency {DTI}
- Price Currency {DTI}
- Crypto-asset identification code {DTI}

Annex II Table 5 : On-chain data

- Token ID {DTI}
- Currency {DTI}

We understand that smart contract addresses are expected to be recorded as part of the under RTS on content and format of order book records (Tables 3 and 5 relating to on-chain data, within Annex II Record of Orders). The value of Smart Contract Addresses is currently defined by up to a 52 alphanumeric character limit within the consultation paper. It is possible that smart contract addresses are longer than

52 characters. For this reason, we recommend ESMA considers a larger character limit. The DTI Foundation is aware of smart contract addresses up to 80 characters on Aptos blockchain, but these are not limited in size due to unique representation on the blockchain. A field definition allowing up to 100 characters may be suitable for any future-proofing considerations.

Some tokens do not use smart contracts at all if they are native to the blockchain (for example ETH on Ethereum) and there could be more than one native token (e.g., THETA and TFUEL) on Theta blockchain. Although we agree that smart contracts provide additional data, given that the reference data is inconsistent, we suggest that the DTI is used to uniquely identify the tokens as it is technology agnostic and provides the smart contract (or equivalent) in its meta data.

Q38: Are there relevant technical attributes describing the characteristics of the crypto- asset or of the DLT on which this is traded, other than those retrievable from the DTIF register? Please detail which ones.

As outlined within the consultation report, the DTI Registry contains multiple technical and informational attributes for each assigned DTI code. The DTI Foundation welcomes feedback on any other potential relevant technical attributes which could be added to the DTI Registry to support wider implementation of the ISO 24165 standard.

The additional economic or classification data elements for crypto-assets are expected to be covered through existing ISO standards, such as CFI (ISO 10962) and ISIN (ISO 6166), already widely used in the financial industry. The DTI Foundation is already collaborating with ANNA (registered Registration Authority for ISIN) to ensure that ISIN and DTI codes are complementary and interoperable. The key initiatives of this collaboration have been the linkage of DTI and ISIN registers and the issuance of new ISIN codes for crypto instruments with XT prefix (following the same hierarchical model as traditional assets). A combination of DTI (technical token/DLT characteristics), ISIN (economic attributes of an asset) and CFI (taxonomy and classification) will provide all the information requirements for market participants. This will also provide continuity and consistency with traditional finance attributes. An overview of ISO family of standards for identification, naming and taxonomy of all tokenised assets is shown in the diagram below.

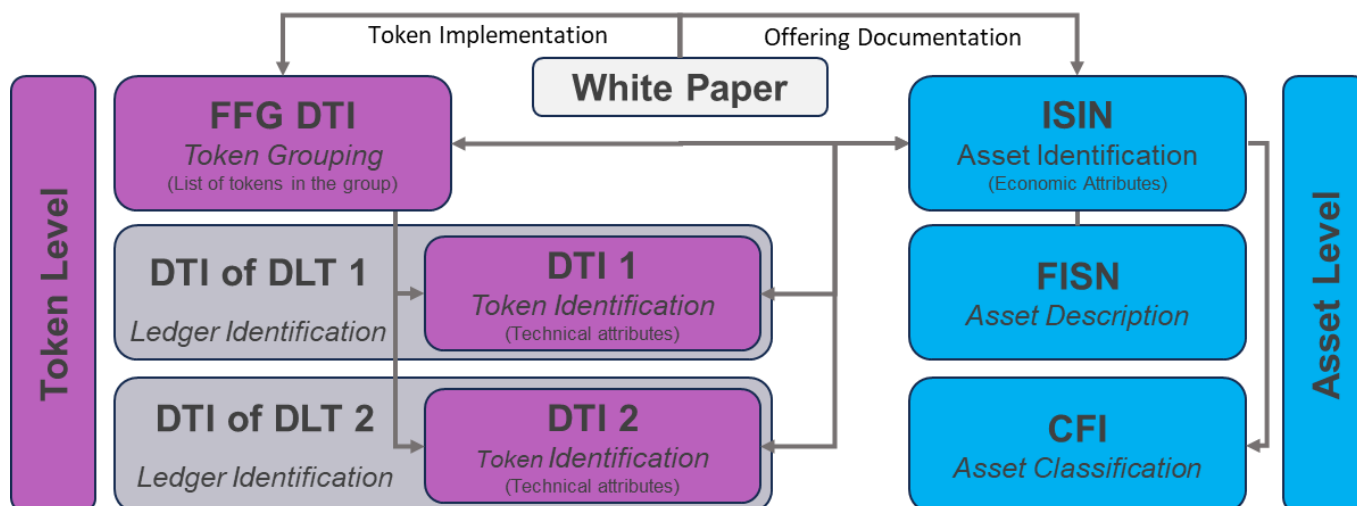


Figure 1. Identification of token implementation with DTI

Q41: Do you agree with the inclusion of the above data elements [Currency (DTI), Type (Deposit/Withdrawal), TravelRule (Yes, No, NA)], specific for on-chain transactions, in both RTS?

As outlined within the consultation paper, the DTI is an appropriate additional data element to be included for both RTS on content and format of order book records and RTS on record-keeping by crypto-asset service providers. Use of the Functionally Fungible Group (FFG) DTI could also be used to support the tracking of tokens across multiple distributed ledger networks.

Machine readability of white papers and white papers register

Q68: Do you agree with the proposed metadata elements, also considering the mandatory metadata expected to be mandated in the context of ESAP?

We agree that in addition to the set of characteristics listed in Annex I (Part D and F); Annex II (Part B) and Annex III (Part B), a valid ISO 24165 Fungible Functional Group Digital Token identifier (FFG) and the more granular DTIs pertaining to the crypto-asset(s) referred in the white paper should be provided as part of the metadata. As outlined in the consultation paper, this will provide regulators with an unambiguous link between a crypto-asset whitepaper and (i) the relevant blockchain where the crypto-asset is issued/traded/settled, and (ii) any ISIN already assigned to the crypto-asset which is recorded and linked to the DTI.

Note that the ISO subcommittee TC68/WG3 has proposed a name change from *Functionally Fungible Group* to *Equivalent Group*. The group has proposed this change to reduce confusion in terminology use of fungibility within the context of describing equivalent tokens implemented across different ledgers.