Feedback on ESMA's MiCA XBRL Implementation Work

MiCA Crypto Alliance

12 September 2025

The European Securities and Market Authorities

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France

Re: Feedback on ESMA's MiCA XBRL Implementation Work

Dear ESMA team,

Thank you for including the MiCA Crypto Alliance as part of the stakeholder group invited to provide feedback to ESMA's MiCA eXtensible Business Reporting Language (XBRL) implementation work, with a focus on the Conversion Tool designed by ESMA as a technical aid for preparers of MiCA white papers.

As one of the key stakeholders bringing the industry together in the generation, diffusion and execution of best practices in relation to MiCA white papers, the MiCA Crypto Alliance hereby submits our feedback in response to this invitation.

We appreciate the effort to provide an XBRL taxonomy for MiCA-related supervisory reporting on crypto-assets, applaud the initiative of distributing technical aid resources beyond ESMA's legislative mandate, and welcome the opportunity to contribute constructively to the tool's ongoing development.

Kind regards,

Juan Ignacio Ibañez
General Secretary
MiCA Crypto Alliance

Feedback on ESMA's MiCA XBRL Implementation Work

MiCA Crypto Alliance

We are honoured to have the opportunity to contribute to ESMA's XBRL implementation work. To this end, we have structured our feedback in two parts. First, we provide general feedback about the taxonomy, as part of ESMA's broader IT implementation works ahead of the entry into application of Commission Implementing Regulation (EU) 2024/2984. Second, we offer specific input about the conversion tool itself.

Taxonomy feedback

The taxonomy package published by ESMA contains four components:
1. The taxonomy.
2. The taxonomy documentation.
3. The validation rules.
4. The reporting manual.

Overall, we find the taxonomy to be comprehensive, with tags covering all relevant fields and none missing. Consequently, our feedback is largely positive. As for potential improvements, we note a few minor areas that could be refined:

- **Table of contents mismatch:** While the RTS of CIR 2024/2984 demands the heading "Table of contents" in the plural, the taxonomy instead uses "Table of content" in the singular. We suggest resolving this by reconciling the taxonomy to the RTS. Until this is achieved, preparers should also be encouraged to use "display text" tags in the white papers to create a human-readable version that is RTS-compliant, and a machine-readable version that is taxonomy-compliant.
- **Number of assets offered or admitted mismatch:** Similarly, for indicator E.12, the RTS of CIR 2024/2984 provide the title "Total number of *offered/traded crypto assets*". By contrast, the taxonomy (and by extension the conversion tool) contains "Total number of *offered or traded other tokens*". This creates the same difficulties and merits the same proposed solution.

- We suggest including a standardised stylesheet to improve readability and ensure consistency across all white papers. This will help maintain a uniform format and appearance for all submissions.

With regard to the taxonomy documentation, we find it to be accurate and complete, with no negative feedback to provide except an inconsistency. In the section "3.4.3.2 Data types",the taxonomy refers to enum2:enumerationItemType / enum2:enumerationSetItemType (EE 2.0), but then lists the controlling attributes with the enum: prefix (enum:linkrole, enum:domain, enum:headUsable). For EE 2.0, these attributes should use the same (2.0) namespace/prefix, not the 1.0 prefix, in order to maintain consistency.

We suggest communicating a non-binding target frequency of updates so that stakeholders in the white paper preparation ecosystem can better estimate their future needs and possible technical debt. Given that projects requiring white paper submissions may already entail significant costs for small projects, and that white papers are not as complex documents as financial reports, we encourage maintaining a low frequency of updates.

We found the validation rules to be complete and to cover all the ELR (Element-Label-Reference) mappings but we discovered a namespace inconsistency for code values. Two taxonomy dates are mixed for enumerations: .../2025-03-31/... (e.g., rows 122–127 in validation rules sheet) and .../2024-11-29/... (e.g., rows 203–210, 207–209 in validation rules sheet). This inconsistency will cause lookups against the EE2 enumerations to fail. We recommend using one taxonomy release and applying it consistently across all rules to avoid lookup failures.

For section F5, the check should enforce that the text is restricted to one of the four allowed values (NEWT, MODI, EROR, CORR). At present, it checks the text field only with the PresenceRule and accepts any text as valid input.

The reporting manual is very clear and informative, and the distinction of "must", "shall" and "should" elements is well defined.

More generally, we suggest that ESMA clarifies explicitly what files a best-practice white paper submissions should include. For example, whether it should consist of a single .xhtml file with CSS embedded in the same file, or a .zip file, and, if the latter, what contents should be required.

Conversion tool feedback

With regard to the conversion tool prepared by ESMA, we have set out a series of observations from our experience trialling it.

As a first observation, we note that the tool does not function at all on Microsoft Excel for Mac, presumably due to differences in the implementation of Excel Visual Basic for Applications (VBA) at code-level. In our experience, all attempts to generate a white paper will fail.

Furthermore, the error messages do not correspond to the actual underlying issues. A file that successfully generates a white paper on Excel on Windows may instead produce run-time error 1004 (modification of a protected sheet) or the invalid folder path error (inability to save files in a particular folder, applied to all folders), although these do not accurately reflect the underlying failure.

Having made this initial clarification, we organise the remainder of the feedback in accordance with the white paper types: first, the OTHR category; second, the EMT category; and third, the ART category. The feedback can be summarised as follows:

For white papers for crypto-assets other than asset-referenced tokens or e-money tokens:

1. **Table of Contents** field defined as Boolean instead of text
2. **Field 05:** Statement in accordance with Article 6(5), point (d), of Regulation (EU) 2023/1114 **is fixed and not adjustable**; absence of utility token status question
3. **Absence of 'Not Applicable' options in Dropdown Fields**
4. **Fields not restricted** to predefined values
5. **Section E defaults to "N/A"** in the admission to trading configuration
6. Recommendation to **enable "N/A" answers in LEI fields**
7. Recommendation to **enable "N/A" answers in part G**
8. **Applicable Law Fields** should be implemented as **Dropdown Lists**
9. **Typographical error** present in **Part H**
10. In the Sustainability chapter, **Field J.1 appears unnecessary** and could be removed
11. The Sustainability chapter currently **allows free-text entry in numeric placeholders**, which may lead to inconsistencies
12. **Energy mix** field limited to a **single value instead of multiple** inputs
13. The **response time** for submissions may **not meet expected standards**
14. Certain **presentation elements** are not permitted
15. **Date fields** are subject to **format restrictions**
16. **Field naming misalignment** between tool and regulatory references

For EMT white papers:

1. **Using an LEI** should automatically allow the use of a '**Not Applicable' option in other related** fields
2. The system currently **rejects "N/A"** entries in the **number of units field**
3. There are issues regarding the implementation and use of **supplementary and optional indicators**

For ART white papers:

We refer to the feedback provided for OTHR and EMT white papers, adjusted for the respective numbering changes. A full mapping of fields across white paper types, together with their location and numbering, can be found in the accompanying MiCA Crypto Alliance report.

1. OTHR category

We appreciate the ESMA team's effort to provide an XBRL tool compliant with the regulatory requirements and best practices under MiCA, and we recognise the difficulty that this entails. Nevertheless, we remain concerned about certain formatting and configuration issues.

1.1. Table of contents: incorrect field type definition

The "Table of Contents" element should be defined as an alphanumerical text field rather than as a Boolean (true/false) variable, in line with the requirements set out under the MiCA reporting template on "**Form and Standards to be Used for Reporting**".

Template for white papers for crypto-assets other than asset-referenced tokens or e-money tokens [abstract]
General information

| 00 Table of content | | true |

Template for white papers for crypto-assets other than asset-referenced tokens or e-money tokens

No	FIELD	CONTENT TO BE REPORTED	FORM AND STANDARDS TO BE USED FOR REPORTING
00	Table of contents	Table of contents	Alphanumerical text

1.2. Field 05 not adjustable based on the classification of the token

In Field 05, "Statement in accordance with Article 6(5), point (d) of Regulation (EU) 2023/1114", the current formulation is fixed and implicitly presumes that the crypto-asset in question is a utility token, which is frequently not the case. In such instances, standard market practice is to write "Not applicable" next to this field. Therefore, "Not applicable" or "N/A" should be accepted as valid inputs under the validation rules.

One possible solution would be to introduce, within the "Configure new White Paper template" process, an explicit question on whether the token constitutes a utility token. Such a configuration would enable automatic population of certain fields with the response "Not Applicable" where appropriate (05, 09, D.7, G.7, G.8) and with "False" for fields D.6 and G.6, in cases where the token is not a utility token. Alternatively, simply adding a dropdown response option with both choices would mitigate the identified issue.

05 Statement in accordance with Article 6(5), point (d), of Regulation (EU) 2023/1114	The utility token referred to in this white paper may not be exchangeable against the good or service promised in this white paper, especially in the case of a failure or discontinuation of the crypto-asset project.

1.3. Dropdown Selection Restrictions

The issue relates to fields implemented as dropdown lists. For the element relating to the registered address, the "Country" sub-field in A.3, A.4, B.4, B.5, C.3 and C.4 is currently implemented as a dropdown list. While the list includes a blank option, it may be more appropriate to introduce an explicit choice such as "Not Applicable: LEI provided in B.7". This would avoid ambiguity for filers who have already disclosed their Legal Entity Identifier in section B.7 and would provide clearer guidance to both issuers and supervisors by distinguishing between incomplete information and instances where the field is not applicable. We recommend introducing this explicit option consistently across sections A, B and C, where the "Country" field is present.

B.4 Registered address	
Registered addess	N/A as LEI is provided in B.7
Country	
Sub-division	N/A as LEI is provided in B.7
B.5 Head office	

1.4. Restricted format required

Some fields require predefined text, values, or specific formats that must not be modified in order to comply with MiCA reporting standards and best practices. Accordingly, Fields F.4 and F.5 must be restricted as follows:

Field F.4 should be limited to the code "OTHR".

of the crypto-asset white paper in the register referred to in Article 109 of Regulation (EU) 2023/1114, as specified in accordance with paragraph 8 of that Article

F.4 Type of crypto-asset white paper	Other crypto-asset token white paper
F.5 Type of submission	
F.6 Other token characteristics	
F.7 Commercial name or trading name	
F.8 Website of the issuer	

F.4	Type of crypto-asset white paper	The type of white paper notified	OTHR

Field F.5 should be limited to the following values: "NEWT" (New), "MODI" (Modify), "EROR" (Error), and "CORR" (Correction). These restrictions are necessary to ensure consistency with the regulatory template, eliminate ambiguity, and facilitate accurate supervisory data collection.

A description of the characteristics of the other token, including the data necessary for classification of the crypto-asset white paper in the register referred to in Article 109 of Regulation (EU) 2023/1114, as specified in accordance with paragraph 8 of that Article

F.4 Type of crypto-asset white paper	Other crypto-asset token white paper
F.5 Type of submission	New
	New
F.6 Other token characteristics	Modify
	Error
	Correction

F.5	The type of submission	Type of submission	NEWT = New MODI = Modify EROR = Error CORR = Correction

We are aware, however, that these issues are not caused by the tool itself, but rather by a mismatch between the taxonomy and the RTS in CIR 2024/2984. If the taxonomy is not updated to address the mismatch, we suggest that the conversion tool be updated to generate display text that is human-readable and RTS-compliant, while preserving taxonomy compliance in the machine-readable side of the file. Alternatively, we recommend issuing specific guidance on the acceptability of RTS violations in order to maintain taxonomy compliance. If none of these solutions is implemented, we are concerned that the conversion tool may not be adopted by the industry, as its use could expose filers to sanctions for non-compliance.

1.5. Part E defaulting to "N/A" in admission to trading configuration

When "Admission to trading" is selected in the configuration questions, all fields from E.3 to E.32 are currently populated automatically with "N/A". This implementation incorrectly ignores the E fields that apply to both admission to trading and offer to the public, in particular E.12, E.13, E.14, and E.24. The configuration must therefore allow these fields to remain active and reportable, rather than defaulting to "N/A", to ensure that the disclosure obligations under MiCA are correctly met.

E.12 Total number of offered or traded other tokens	N/A
E.13 Targeted holders	N/A
E.14 Holder restrictions	N/A
E.24 Payment methods for other token purchase	N/A

1.6. Legal Entity Identifier field should enable "N/A" answers

In fields referring to the "Legal Entity Identifier" including A.6, B.7, and C.6, the response "N/A" is not accepted as valid when the offeror, person seeking admission to trading, the issuer, or the operator does not have a Legal Entity Identifier. This was resolved by replacing "N/A" with "Not Applicable".

C.4 Head office		
Head office		Not Applicable
Country		
Sub-division		Not Applicable
C.5 Registration date		Not Applicable
C.6 Legal entity identifier	LEI	N/A
C.7 Another identifier required pursuant to applicable national law		Not Applicable

1.7. Part G should enable "N/A" answers

In Part G, N/A is not accepted as a valid response. However, the absence of a contract regulating crypto assets often means that many of the fields of this section are not applicable. Therefore, we suggest that "N/A" is enabled as a valid response.

Part G - Information on rights and obligations attached to other tokens		
G.1 Purchaser rights and obligations		N/A
G.2 Exercise of rights and obligations		N/A
G.3 Conditions for modifications of rights and obligations		N/A
G.4 Future public offers		N/A
G.5 Issuer retained other token	integer	N/A
G.6 Utility token classification		false
G.7 Key features of goods or services utility tokens		N/A
G.8 Utility tokens redemption		N/A
G.9 Non-trading request		false
G.10 Other tokens purchase or sale modalities		N/A
G.11 Other tokens transfer restrictions		N/A
G.12 Supply adjustment protocols		false
G.13 Supply adjustment mechanisms		N/A
Other token schemes details		
G.14 Token value protection schemes		false
G.15 Token value protection schemes description		N/A
G.16 Compensation schemes		false
G.17 Compensation schemes description		N/A
G.18 Applicable law		N/A
G.19 Competent court		N/A

1.8. Applicable law fields should be a drop down

According to CIR 2024/2984, applicable law fields may only be completed by selecting from a "drop-down list of applicable laws", which is not currently available. We suggest making such a drop-down available within the conversion tool. This suggestion could be extended to

competent court fields, which are not subject to this restriction, but would nevertheless benefit from being structured in this way.

1.9. Part H typo

In Field H.1, the conversion tool introduces the acronym "DTL" for distributed ledger technology, when the correct acronym is "DLT". This problem arises not only at the level of the conversion tool but also at the taxonomy level, and can even be observed within the RTS of CIR 2024/2984 itself.

Part H – information on the underlying technology	
H.1	Distributed ledger technology (DTL)

1.10. Sustainability chapter (Part J): Field J.1 is not needed

Under CIR 2024/2984, Field J.1 is a free alphanumerical text field. However, the field requires the disclosure of the "information referred to Commission Delegated Regulation establishing technical standards adopted pursuant to Article 6(12), fourth subparagraph, Article 19(11), fourth subparagraph, Article 51(15), fourth subparagraph, and Article 66(6), fourth subparagraph of Regulation (EU) 2023/1114 of the European Parliament and of the Council". This requirement is already met by introducing the tables of CDR 2025/422 (Fields S.1 to S.36). There is therefore no need to introduce a custom prose field (J.1) *in addition to* these 36 fields. Indeed, in the taxonomy this field can be null. We suggest deleting this field altogether to avoid confusion.

Part J - Information on the sustainability indicators in relation to adverse impact on the climate and other environment-related adverse impacts	
J.1 Adverse impacts on climate and other environment-related adverse impacts	
Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism	
General information about adverse impacts	
S.1 Name	Hedera Hashgraph, LLC.

1.11. Sustainability chapter (Part J): Free text in numeric placeholders

The validation rules currently allow the entry of free text in fields designated as numeric placeholders. This suggests that the validation framework is not functioning correctly, unless the

intention is to enable the entry of "N/A" where certain fields are not applicable. If that is the case, this feature should also apply to the Legal Entity Identifier fields (A.6, B.7, and C.6), allowing "N/A" as a valid response when an LEI is not available (see feedback 1.6).

Mandatory key indicator		
S.8 Energy consumption	energy (kWh)	46,466.82545 kWh per calendar year
Sources and methodologies		
S.9 Energy consumption sources and methodologies		Data provided by the MiCA Crypto Alliance as a third party, with no deviations from the calculation guidance of Commission Delegated Regulation (EU) 2025/422, Article 6(5). Full methodology available at : www.micacryptoalliance.com/methodology
Supplementary information on principal adverse impacts on climate and other environment-related adverse impacts of consensus mechanism		
Supplementary key indicators		
S.10 Renewable energy consumption	percent	39.46177594%
S.11 Energy intensity	energy (kWh)	0.00021 per transaction
S.12 Scope 1 DLT GHG emissions - controlled	GHG emissions (tCO2e)	0 eq per calendar year
S.13 Scope 2 DLT GHG emissions - purchased	GHG emissions (tCO2e)	13.02924 eq per calendar year
S.14 GHG intensity	GHG emissions (tCO2e)	0.00006 kg CO_2eq per transaction

1.12. Sustainability chapter (Part J) : Energy Mix Field Restricted to Single Value

The current implementation of the "Energy Mix" in Field S.17 permits only a single input value, which is inconsistent with the nature of the disclosure, as the energy mix typically consists of multiple energy sources. We suggest that the field be structured in the same format as those used for "Management Body" or "Legal Persons", thereby allowing multiple entries in a tabular format. Implementing this approach could also be accompanied by the introduction of a related configuration question to enable or disable the field, with this remaining optional given that the sustainability indicator is not mandatory in all cases.

S. 17 Energy mix	percent	19%

S.17	Energy mix	Energy source	Percentage {DECIMAL-11/10}
		Bioenergy	0.0419126260
		Coal	0.1254243206
		Gas	0.2874233009
		Hydro	0.0858538592
		Nuclear	0.1571084368
		Other fossil	0.035426182
		Other Renewables	0.0025591953
		Solar	0.0911392039
		Wind	0.1731528750

1.13. Response time

According to CIR 2024/2984, "response time" (A.11) is a three-digit integer value. However, the conversion tool allows entries with fewer than three digits. The validation rules only check whether the value is greater than zero and do not require this field to contain three digits. We recommend standardising this or issuing guidance clarifying whether entries with fewer than three digits are acceptable.

A.10 E-mail address		text format
A.11 Response time (days)	*integer*	07
A.12 Parent company		Not applicable as

1.14. Presentation elements

The tool imposes multiple restrictions that limit the readability and usability of the XHTML output. For example, it does not permit free-text fields to be restructured into bullet points or tabular formats (except where tabular format is already mandated), nor does it allow for the generation or import of functioning hyperlinks.

	Data provided by the MiCA Crypto Alliance as a third party the calculation guidance of Commission Delegated Regulati 6(5). As the asset runs on a decentralised network, estimates draw are used.
S.9 Energy consumption sources and methodologies	Full methodology available at: www.micacryptoalliance.con

1.15. Date format restriction

The date format in fields such as Field 01 ("Date of notification") should follow the 'YYYY-MM-DD' standard, in line with MiCA reporting requirements and best practices. However, the tool currently allows free-text entry, which increases the risk of typographical errors, unless this feature is intended to accommodate "not applicable" options in certain date fields. We recommend that all date fields adopt a standardised format. In cases of non-applicability, this could be addressed, for example, through a tick-box option.

I.00 Table of content	true
I.01 Date of notification	2025-300-12

2.   EMT category

The EMT fields display similar limitations to the OTHR fields. To avoid repetition and for the sake of brevity, we do not restate each of the limitations already identified, but instead focus on the unique ones. It should be noted, however, that field numbers for the same content may vary across white paper types.

2.1.   Usage of LEIs should enable N/A in other fields

The usage of an LEI in field A.7 means that fields that are not to be completed if a LEI is provided (such as A.4 and A.5) should be automatically blocked and "N/A" defaulted to. If this is not feasible, the rejection of the input "N/A" should be lifted to allow for manual entry of "N/A" in this field. We recommend introducing a configuration step through a preliminary YES/NO question such as "Does the entity have an LEI?". This would enable the tool to automatically apply the appropriate logic and reduce the risk of inconsistency. Alternatively, guidance could be issued clarifying that leaving a field entirely blank is acceptable and should be treated as "N/A", thereby ensuring consistent interpretation.

Part A - Information about the issuer of the e-money token	
A.1 Statutory name	Circle Internet Financial Europe SAS
A.2 Trading name	Circle France
A.3 Legal form	Not applicable as LEI is provided in A
A.4 Registered address	
Registered addess	Not applicable as LEI is provided in A
Country	France
Sub-division	Not applicable as LEI is provided in A

2.2.   Rejection of N/A in number of units

Field C.2 (number of units) refers to the total number of units of the e-money token to be offered to the public or admitted to trading. In cases where no specific number of units is admitted or offered, for example, where supply is governed by an algorithm or subject to other rapid fluctuations, this field would typically be completed as "N/A". However, the validation rules currently reject this input as it is not an integer, although it appears to be an appropriate response to the requirement.

Part C - Information about the offer to the public of the e-money token or its admission to trading		
C.1 Public offering or trading		Offer to public
C.2 Number of units	integer	0
Trading platforms characteristics		
C.3 Trading platforms name		USDC is listed on major global regulated crypto-as Bitstamp and OKX. Circle SAS intends to maintain Applicable Laws.
C.4 Trading platforms market identifier code (MIC)		USDC is listed on numerous trading platforms, incl Bitstamp: BESA
C.5 Applicable law		France
C.6 Competent court		Any dispute with the offer to the public of USDC in Paris, France except where prohibited by the laws

2.3. Supplementary and optional indicators

Unlike our experience with the OTHR file, the EMT file did not accept alphanumerical text in the supplementary and optional sustainability indicators. However, as these indicators are optional, this raises the question of what preparers should enter if they wish not to provide this information. In this scenario, writing "N/A" would violate a validation rule, as it is alphanumerical content, whereas writing "0" would abide by the validation rule but could be misleading, suggesting, for example, that Scope 3 emissions are zero when the preparer merely intends to indicate that they are not being disclosed.

Optional information on principal adverse impacts on the climate and on other environment-related adverse impacts of the consensus mechanism		
Optional indicators		
S. 17 Energy mix	percent	40.55229692%
S.18 Energy use reduction		
Energy use reduction target (absolute value)	energy (kWh)	Ex: 27.04
Energy use reduction target (percentage)	percent	Ex: 27.1018%
S.19 Carbon intensity	decimal	Ex: 27.1018
S.20 Scope 3 DLT GHG emissions - value chain	GHG emissions (tCO2e)	Ex: 27.04
S.21 GHG emissions reduction targets or commitments		textBlock format
S.22 Generation of waste electrical and electronic equipment (WEEE)	mass (tonnes)	Ex: 27.04
S.23 Non-recycled WEEE ratio	percent	Ex: 27.1018%
S.24 Generation of hazardous waste	mass (tonnes)	Ex: 27.04
S.25 Generation of waste (all types)	mass (tonnes)	Ex: 27.04
S.26 Non-recycled waste ratio (all types)	percent	Ex: 27.1018%
S.27 Waste intensity (all types)	mass (tonnes)	Ex: 27.04
S.28 Waste reduction targets or commitments (all types)		textBlock format
S.29 Impact of use of equipment on natural resources		textBlock format
S.30 Natural resources use reduction targets or commitments		textBlock format
S.31 Water use	volume (m3)	Ex: 27.04
S.32 Non recycled water ratio	percent	Ex: 27.1018%

As one of the few initiatives working closely with regulators, CASPs, and crypto-asset projects, the MiCA Crypto Alliance has developed a practical understanding of how MiCA white papers work in practice. We have supported leading projects in preparing high-quality MiCA compliant white papers and sustainability disclosures, aligned with established best practices and methodologies. Our MiCA white paper tracking tool and scoring framework, available here, is a testimony to this commitment. We would be pleased to remain engaged as the study progresses and to support the finalisation of your recommendations with field-tested insight and implementation experience.