Implications of MiCA for sustainability disclosure

January 2024

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Contents

1 Background of the Markets in Crypto-Assets regulation

The aim of the Markets in Crypto-Assets (MiCA) regulation is to establish an EU-wide harmonized framework to regulate crypto-assets. This regulation intends to overcome fragmented regulations that currently exist across EU member states and provides a level playing field for all market participants inside the EU. By providing legal certainty, MiCA will foster trust within the crypto market. This regulation supplements and interacts with existing regulations such as the Markets in Financial Instruments Directive II (MiFID II[1]).

The two main groups targeted by MiCA are token issuers and crypto-asset service providers (CASPs).

The requirements for token issuers depend largely on the type of crypto-assets they issue. MiCA identifies three types: electronic money tokens (EMTs), asset-referenced tokens (ARTs) and other tokens, covering a wide variety of crypto-assets, including utility tokens. Subject to their material design, both EMTs or ARTs can be structured as stablecoins. At the same time, MiCA does not cover security tokens, non-fungible tokens (NFTs), and certain electronic securities as summarized in Table 1.

Tokens in scope	Tokens out of scope
▸ Electronic money tokens (EMTs), which aim to maintain a stable value by referring to the value of a single fiat currency that is legal tender. Examples of EMTs are Tether and USD Coin. ▸ Asset-referenced tokens (ARTs), which aim to maintain a stable value by referring to the value of several fiat currencies that are legal tender and/or one or more crypto-assets and/or commodities. Examples of ARTs are PAX Gold or Libra Coin from Facebook. ▸ Other tokens, which include a wide variety of crypto-assets, including utility tokens.	▸ Security tokens, defined as financial instruments or electronic money (e-money) and covered under MiFID II or the Electronic Money Directive (EMD). Includes other tokens falling under existing regulation such as the EU Prospectus Regulation as well as electronic securities as defined under the German Electronic Securities Act (eWPG).[2] ▸ Non-fungible tokens (NFTs) are excluded to a large extent (e.g., digital art, digital collectibles, and tokens representing specific physical assets such as real estate) unless the asset can be fractionalized.[3]

TABLE 1 Tokens in and out of scope of MiCA

> The MiCA regulation aims to provide an EU-wide harmonized framework to regulate crypto-assets.

1 Application of the law is subject to the design of the digital asset (ESMA "substance over form"). Hence crypto-assets that are subject to MiFID II i.e., a financial instrument according to MiFID II Annex 1 Section C, are outside the scope of MiCA and vice versa.
2 See Recital 3 of the MiCA regulation and Sec.2 of the eWPG.
3 See Recital 10 of the MiCA regulation.

In addition to token issuers, the second target group of the MiCA regulation are CASPs, which are defined as entities providing services related to crypto-assets to third parties on a professional basis. Examples for crypto-asset services that fall under this definition include operating trading platforms and exchanging crypto-assets for funds or other crypto-assets. Furthermore, services on behalf of clients fall under this definition, such as custody and administration, transfer services, issuance and placement of crypto-assets, transmitting or executing orders, advice on crypto-assets, and portfolio management. Crypto-asset services that are provided in a fully decentralized manner without any intermediary are not in scope of the MiCA regulation. It is also important to note that tokens with no identifiable issuer do not need to meet the requirements specified for token issuers (as there are none). However, crypto-asset service providers that provide services relating to tokens with no identifiable issuer are covered by MiCA.[4] By the end of 2024, the EU Commission must present a report to the European Parliament and the Council assessing whether further regulation of such decentralized crypto-asset systems without a token issuer or CASP – which are currently out of scope – is necessary.[5]

MiCA entered into force in June 2023, with its application scheduled to take place in 2024. The regulation includes several measures that must be developed before the entry into application. The first and second consultation packages were published in July and October 2023. The first package invites feedback on proposed regulations for CASPs concerning their authorization, conflict of interest management and complaint handling, among others. The second consultation package invites feedback on sustainability indicators, technical requirements for whitepapers and disclosure of inside information, among others. The European Securities and Markets Authority (ESMA) will be releasing the last MiCA consultation package at the beginning of 2024 as illustrated in Figure 1.

> MiCA will enter into application in the course of 2024 after entering into force in June 2023.

Timeline

4 See Recital 22 of the MiCA regulation.
5 See Article 142 of the MiCA regulation.

Markets in Crypto-Assets (MiCA) Regulation
Implementation timeline

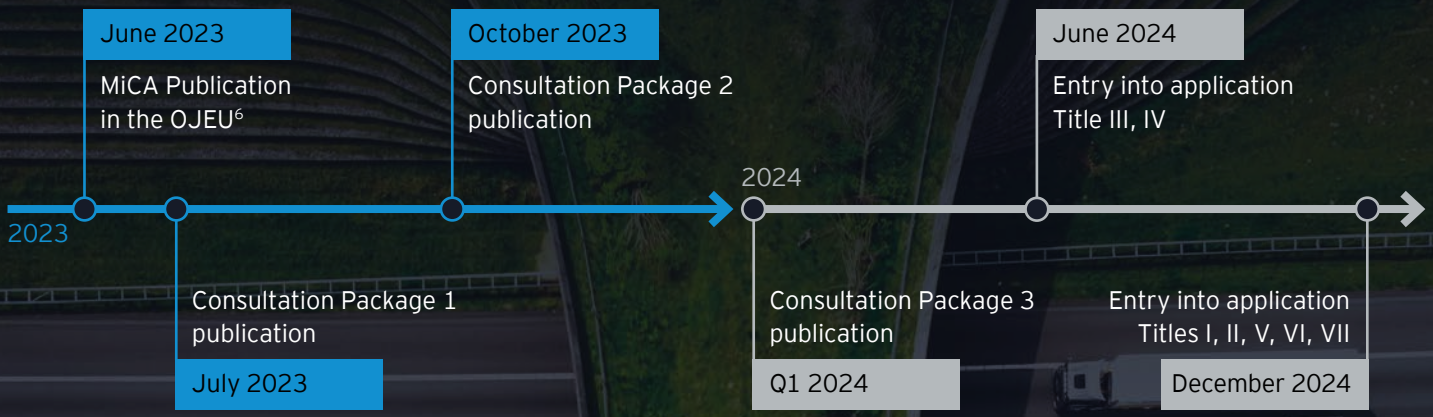

FIGURE 1 MiCA implementation timeline
Source: European Securities and Markets Authority (ESMA)

6 OJEU: Official Journal of the European Union

2 Implications and sustainability disclosure under MiCA

The MiCA regulation acknowledges that crypto-assets might have principal adverse effects on the climate and the environment. The extent of the effects largely depends on the type of consensus algorithm used by the respective crypto-asset.

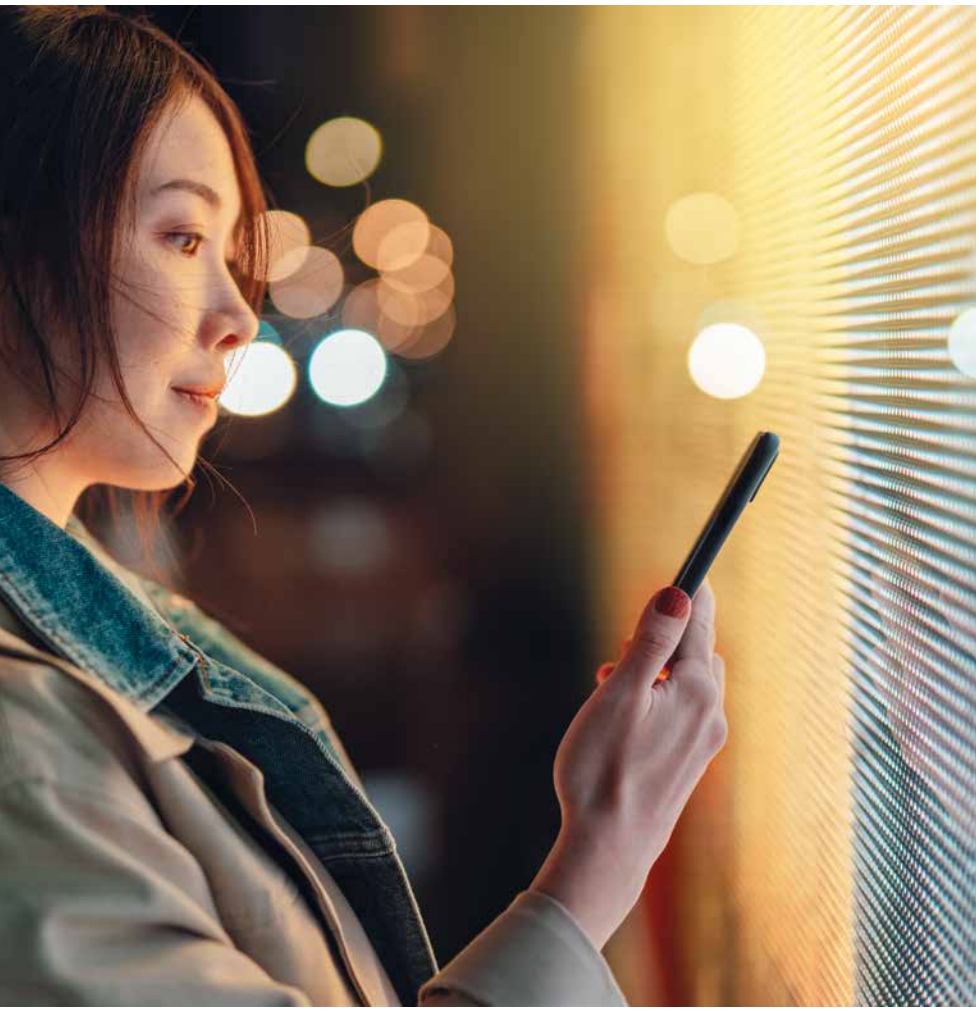

Figure 2 provides an overview of the most relevant consensus algorithms and their respective carbon intensity[7] as a proxy for climate impact. Consequently, token issuers and CASPs will be required to disclose certain sustainability indicators. The ESMA in cooperation with the European Banking Authority (EBA) are mandated to develop technical standards for the content, the methodologies and presentation of information with regard to the sustainability indicators that should ensure coherence in the disclosure of token issuers and crypto-asset service providers.[8]

7 Carbon intensity for individual tokens may vary greatly depending on external factors such as average efficiency of the hardware being used, the geographic distribution of miners, energy sources used, etc.
8 See recital 7 in the MiCA regulation.

Consensus algorithm	Proof of Work (PoW)	Proof of Stake (PoS)	Proof of Storage	Other BFT[9]-style algorithms (e.g., Proof of Authority/ elapsed time/history, BFT, Hashgraph)
Energy/carbon intensity	Very High	Low	Medium-high	Low
Key driver of energy need	Mining activities/ incentives[10]	Node and transaction counts[11]	Storage capacity	E.g., count of trusted validators
Examples	Bitcoin, Litecoin 	Ethereum, Cardano, Solana 	Filecoin, Chia 	VeChain, Hedera, permissioned networks 
Tokens, Layer 2 networks, etc.	The climate impact of tokens, layer 2 networks, and other activities building on top of layer 1 networks highly depend on the sustainability performance of the underlying layer 1 network.[12] Examples of tokens include stablecoins such as Tether and USD Coin, or L2 networks such as Polygon, which benefits from security features of Ethereum and other base-layer networks.			

FIGURE 2 Climate impact of relevant consensus algorithms (Source: CCRI research).

The second consultation package released by ESMA on 5 October 2023, presents the proposed sustainability indicators token issuers and CASPs must disclose. ESMA proposes mandatory disclosure of several quantitative indicators to capture adverse climate and environmental effects (see Table 2a), as well as additional indicators that may be disclosed (see Table 2b).[13] The disclosed information must be easily understandable, updated at least once a year (and without undue delay in case of major changes), and users must be able to compare all crypto-assets provided by the same CASP. Furthermore, any layer 2 network must include the underlying layers in their disclosures.

9 *BFT stands for byzantine fault tolerance.*
10 *See e.g., De Vries et al. 2022, Revisiting Bitcoin's Carbon Footprint.*
11 *See e.g., CCRI Ethereum Merge Report.*
12 *See e.g., Gallersdörfer et al. 2021, Accounting for carbon emissions caused by cryptocurrency and token systems.*
13 *See MiCA Consultation Package 2, Annex II, Table 1 and 2.*

Mandatory information

Type	Adverse sustainability indicator	Metric
Energy	Energy consumption	Total amount of energy used, expressed in kilowatt-hours (kWh) per calendar year, for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions
	Non-renewable energy consumption	Share of energy used generated from non-renewable sources, expressed as a percentage of the total amount of energy used per calendar year, for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions
	Energy intensity	Average amount of energy used, in kWh, per validated transaction
Greenhouse Gas (GHG) emissions	Scope 1 – Controlled	Scope 1 GHG emissions, expressed in tons (t) carbon dioxide equivalent (CO2e) per calendar year for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions
	Scope 2 – Purchased	Scope 2 GHG emissions, expressed in tons of CO_2 emmissions (tCO_2e) per calendar year for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions
	GHG intensity	Average GHG emissions (scope 1 and scope 2) per validated transaction, expressed in kilogram (kg) CO2e per transaction (Tx)
Waste production	Generation of waste electrical and electronic equipment (WEEE)	Total amount of WEEE generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in tons per calendar year
	Non-recycled WEEE ratio	Share of the total amount of WEEE generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, not recycled per calendar year, expressed as a percentage
	Generation of hazardous waste	Total amount of hazardous waste generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in tons per calendar year
Natural resources	Impact of the use of equipment on natural resources	Description of the impact on natural resources of the production, the use and the disposal of the devices of the DLT network nodes

TABLE 2A Mandatory information on principal adverse effects on the climate and other environment-related adverse effects of the consensus mechanism as proposed by the ESMA in Consultation Package 2[14]

14 See MiCA Consultation Package 2, Annex II, Table 1.

Additional information

Type	Adverse sustainability indicator	Metric
Energy	Energy mix	Share of energy from non-renewable sources used for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, broken down by each non-renewable energy source, expressed as a percentage
	Carbon intensity	Carbon intensity of the energy used for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in kgCO2e per kWh
	Energy use reduction	Energy use reduction targets or commitments, expressed in absolute or relative reduction of energy use over one calendar year
Greenhouse Gas (GHG) emissions	Scope 3 - Value chain	Scope 3 GHG emissions for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in tCO_2e per calendar year
	GHG emissions reduction targets or commitments	GHG emissions reduction targets or commitments, expressed in terms of absolute or relative reduction in GHG emissions over one calendar year
Waste production	Generation of waste (all types)	Total amount of waste generated by the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in tons per calendar year
	Non-recycled waste ratio (all types)	Share of the total amount of waste generated for the validation of transactions and the maintenance of the integrity of the distributed ledger of 100 transactions not recycled per calendar year
	Waste intensity (all types)	Total amount of waste generated per transaction validated, expressed in gram per transaction
	Waste reduction targets or commitments (all types)	Waste reduction targets or commitments, expressed in absolute or relative reduction in waste generation over one calendar year
Natural resources	Natural resources use reduction targets or commitments	Natural resources use reduction targets or commitments, expressed in absolute or relative reduction in use of natural resources over one calendar year
	Water use	Total water consumption linked to the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed in cubic meters
	Non recycled water ratio	Share of the total water consumed not recycled and not reused linked to the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions per calendar year, expressed as a percentage

TABLE 2B Additional climate and other environment-related indicators as proposed by the ESMA in Consultation Package 2[15]

15 See MiCA Consultation Package 2, Annex II, Table 2.

Implications for token issuers

The introduction of MiCA has profound implications for token issuers operating within the EU. These implications vary depending on the type of token issued. In the case of issuers of electronic money tokens (EMTs) and asset-referenced tokens (ARTs), MiCA imposes a specific obligation to obtain authorization. EMTs, by their very nature, aim to maintain a stable value by referencing the value of a single fiat currency that is legal tender. This essentially means that they are designed to mirror traditional fiat currencies in terms of their stability. Similarly, ARTs aim to maintain a stable value by referring to the value of several fiat currencies that are legal tender or one or more crypto-assets or commodities.

Given their nature and their potential to disrupt the existing monetary and financial systems, MiCA defines strict regulatory measures to govern stablecoins. The authorization requirement implies that issuers must meet specific standards and follow certain protocols, which aim to enhance security and reliability. This means that issuers must navigate a rigorous process to obtain authorization, which can increase the operational complexity and costs associated with their activities.

Moreover, ART issuers are subject to an additional requirement: they must be a legal person domiciled within the EU. This measure can be considered a way of ensuring that these issuers are accountable and can be held legally responsible within the jurisdiction of the EU. It is another mechanism to enhance the credibility of these tokens and the overall crypto market, promoting trust among users and investors.

Additionally, for all issuers, regardless of the type of token, MiCA introduces a requirement to publish a comprehensive whitepaper that provides essential details about the tokens. The whitepaper must include not only financial information, but also data on sustainability indicators and any potential adverse climate and environment-related effects associated with the token.[16] This requirement aims to ensure transparency, mitigate the risks associated with crypto-assets, and allow potential investors to make informed decisions. The second consultation package released by ESMA on 5 October 2023, presents the proposed sustainability indicators token issuers and CASPs must disclose (see Table 2A and 2B). Table 3 summarizes the general implications and climate-related disclosure requirements by type of token issuers.

The MiCA requirements differ depending on the type of token issued.

16 See Article 6 of the MiCA regulation.

Type of token	Implications for issuers	Climate impact disclosure
Electronic money tokens (EMT)	▸ Required to publish whitepaper (the issuer is liable to the asset holder in case of incomplete or misleading information leading to loss) ▸ Obligation to obtain authorization as credit institution or as electronic money institution ▸ Further specific requirements including the safeguarding of funds and the presentation of marketing communications[17]	▸ All token issuers need to publish whitepapers containing information on the principal adverse impact on the climate and other environment-related adverse impacts of the consensus mechanism used to issue the crypto-asset ▸ The sustainability disclosures should cover the use of energy, the production of waste as well as greenhouse gas emissions (see mandatory and additional sustainability indicators proposed by ESMA displayed in Table 2A and 2B).
Asset-referenced tokens (ART)	▸ Required to publish whitepaper (the issuer is liable to the asset holder in case of incomplete or misleading information leading to loss) ▸ Obligation to be a legal person or undertaking established in the EU and to obtain authorization as an ART issuer or to be a credit institution[18] ▸ Further specific requirements including the obligation to regularly report key figures on the asset to the competent authority and requirements for a minimum amount of own funds[19] (the highest of the following: (a) EUR 350,000; (b) 2% of the average amount of the reserve of assets referred to in MiCA Article 36[20]; (c) a quarter of the fixed overheads of the preceding year)	
Other tokens	▸ Required to publish whitepaper (the issuer is liable to the asset holder in case of incomplete or misleading information leading to loss) ▸ Utility token offerings to qualified investors and those in which crypto-assets can only be held by such qualified investors as well as those where over a period of 12 months, the total consideration of an offer to the public of crypto-assets in the Union does not exceed EUR 1,000,000, are exempted from publishing a whitepaper ▸ Duration of public offer for utility tokens – with regard to a service that is not yet in operation – shall not exceed 12 months ▸ Required to publish marketing communications	

TABLE 3 Implications of MiCA for token issuers

17 See Articles 53 to 55 of the MiCA regulation for further details on specific requirements.
18 See Article 16 (2) of the MICA regulation for dedicated exemptions from that rule.
19 See Articles 22 to 47 of the MiCA regulation for further details on specific requirements.
20 See Article 36 of the MiCA regulation.

In conclusion, MiCA introduces a significant shift in the regulatory landscape for token issuers, particularly those issuing EMTs and ARTs. The increased regulatory requirements and procedures will enhance security and stability and thereby create trust and credibility in the market. At the same time, they also bring new challenges and complexities for issuers, who will need to adapt their operations to comply with all these requirements listed above in Table 3 in order to be MiCA compliant.

> Issuers of EMTs and ARTs must hold a specific authorization and issuers of ARTs must also establish a legal person within the EU.

Implications for crypto-asset service providers

The adoption of MiCA has significant implications for CASPs. As an integral part of the crypto ecosystem, these entities offer one or more crypto-asset services to third parties on a professional basis. Under the new regulatory framework of MiCA, CASPs are now subject to increased scrutiny and stringent regulatory requirements depending on the type of service they provide. Table 4 summarizes those requirements by type of CASP.

EMTs | ARTs

Type of CASP[21]	Implications for CASPs	Climate impact disclosure
Trading platforms	▸ Must be established as legal entities with a registered office in the EU ▸ Obligation to be officially authorized[22] ▸ Ensure transparency requirements, implement appropriate prudential safeguards, maintain strong organizational structures, and adhere to stringent safekeeping requirements for client funds and assets ▸ Minimum capital requirement of EUR 150,000 (or one quarter of the fixed overheads of the preceding year if higher) ▸ Further specific requirements including the implementation of operating rules to ensure suitability of the crypto-asset traded and the integrity of the platform[23]	▸ Obligation for all CASPs to make publicly available, in a prominent place on their website, information related to the principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism used to issue each crypto asset in relation to which they provide services ▸ The sustainability disclosures should cover the use of energy, the production of waste as well as greenhouse gas emissions. It also applies to tokens with no identifiable issuer (see mandatory and additional sustainability indicators proposed by ESMA displayed in Table 2A and 2B).
Custody/ administrative services and exchanges	▸ Must be established as legal entities with a registered office in the EU ▸ Obligation to be officially authorized[22] ▸ Ensure transparency requirements, implement appropriate prudential safeguards, maintain strong organizational structures, and adhere to stringent safekeeping requirements for client funds and assets ▸ Minimum capital requirement of EUR 125,000 (or one quarter of the fixed overheads of the preceding year if higher) ▸ Further specific requirements including keeping a register of positions for each client and segregation of client holdings and own holdings for custody and administrative services and establishing a non-discriminatory commercial policy[24]	
Other CASPs (e.g., investment advisors or portfolio managers)	▸ Must be established as legal entities with a registered office in the EU ▸ Obligation to be officially authorized[22] ▸ Ensure transparency requirements, implement appropriate prudential safeguards, maintain strong organizational structures, and adhere to stringent safekeeping requirements for client funds and assets. ▸ Minimum capital requirement of EUR 50,000 (or one quarter of the fixed overheads of the preceding year if higher) ▸ Further specific requirements including disclosure of conflicted interests and all costs and related charges for investment advisors and portfolio managers[25]	

TABLE 4 Implications of MiCA by type of CASP

21 See Annex IV of the MiCA regulation for a detailed list of crypto-asset services covered.
22 The documents required during the authorization process will be defined during the implementation phase. Preliminary guidance is provided by ESMA in the first consultation package.
23 See Article 76 of the MiCA regulation for further details on specific requirements.
24 See Article 75 and 77 of the MiCA regulation for further details on specific requirements.
25 See Articles 78 to 82 of the MiCA regulation for further details on specific requirements depending on the type of crypto-asset service provided.

The first significant change brought about by MiCA is that all CASPs must now be established as legal entities with a registered office in an EU member state and must be officially authorized as a CASP (see below for details on the process). This requirement seeks to enforce a more regulated and controlled environment for the operation of CASPs within the European Union. It ensures that these entities are within the jurisdiction of EU authorities, thereby allowing for proper oversight and regulatory control.

The process of obtaining the relevant authorization is not a trivial one. CASPs must apply for this authorization with the competent authority of the EU member state where they have their registered office. Further prerequisites are that the place of effective management is in the EU and that at least one of the directors is an EU resident. The authorization process may require CASPs to demonstrate their business plan, risk management procedures, and internal governance structures, among other things, thereby ensuring that only those service providers with robust systems and controls are allowed to operate. The process includes the submission of the application to the competent authority of the EU member state that is responsible for assessment, the notification of grant or refusal to ESMA and the publication in the registry managed by ESMA.[26] The entire process is expected to take at least 4 to 5 months which urges CASPs to start the procedure in time as authorization must be granted in the implementation phase terminating at the end of 2024. For already authorized financial institutions (e.g., credit institutions, central securities depositories, electronic money institutions), the process is simplified and shorter but still requires several months of notice.[27] Also, crypto-asset service providers that provided their services in accordance with applicable national law before 30 December 2024, may continue to do so until 1 July 2026 without additional authorization unless the respective member state decides to opt out of transitional measures or reduce their duration.[28] These transition periods are mainly relevant for companies that already hold or have applied for a national license today, i.e. under the German Banking Act (Kreditwesen-gesetz – KWG) an extension of the banking license for the custody of crypto-assets.

The MiCA regulation also requires that CASPs publish the environmental impact of all the tokens they offer on their website. There are three options for CASPs to obtain the required sustainability data related to the tokens they offer.

1 First, CASPs may source the data directly from token issuers as they have to disclose climate impacts in their whitepapers. However, this might be challenging in the case of tokens where there is no identifiable issuer and if information must be updated regularly or if CASPs are responsible for ensuring the correctness of the information.

2 Second, CASPs may conduct own research based on established scientific methodologies. There is a growing body of academic studies that provide guidance on how to calculate and account for carbon emissions caused by digital assets.[29]

3 Lastly, CASPs may source the required information from external data providers specialized on sustainability data of digital assets. For instance, CCRI – Crypto Carbon Ratings Institute provides such data based on scientific methodologies and lab measurements for a wide range of crypto-assets.

26 See Article 59 in the MiCA regulation.
27 See article 60 in the MiCA regulation.
28 See Article 143 of the MiCA regulation.
29 See for example Gallersdörfer et al. 2021, Accounting for carbon emissions caused by cryptocurrency and token systems.

Beyond the obligations related to authorization and environmental disclosure, CASPs must also comply with a range of other regulatory requirements set forth in MiCA. These requirements include, among others, maintaining minimum capital requirements, implementing appropriate prudential safeguards, maintaining strong organizational structures, and adhering to stringent safekeeping requirements for client funds and assets.

The minimum capital requirement will ensure that CASPs have adequate financial resources to withstand potential losses, thereby protecting their clients and the broader financial system. Furthermore, organizational requirements seek to ensure that CASPs have a robust governance structure, with clear lines of responsibility and accountability to protect client funds and assets from potential losses or misuse.

Therefore, the implications of MiCA for CASPs are far-reaching. They not only have to satisfy more stringent regulatory requirements but also need to demonstrate their commitment to transparency and sustainability, which could have significant implications for their operations, reputation, and overall market positioning. At the same time, MiCA will enhance the legitimacy and credibility of CASPs, potentially attracting more customers and investors in the long run.

Implications for traditional financial services companies

With the introduction of MiCA, traditional financial services companies are facing an evolving landscape that necessitates a recalibration of their approach towards crypto-assets. Banking, asset management, and trading/exchange services are affected most by the new MiCA requirements as summarized in Table 5.

The key implication is the need for traditional financial services companies to deepen their understanding of the growing crypto market. Prior to MiCA, crypto-assets were largely regarded as a niche or parallel market operating outside the traditional finance world. However, crypto-assets are growingly recognized as a legitimate part of the financial system. The crypto market is increasingly becoming a part of the traditional financial system outside of the EU where no such legal certainty exists, resulting in controversial discussion and legal proceedings.

Thus, traditional financial service companies must explore opportunities i.e., with respect to various token types, their unique features, the risks associated with them, and how they can be incorporated into the existing financial system.

Compliance with MiCA is not merely a matter of following rules, it requires a comprehensive understanding of the rationale behind these regulations. Thus, it is vital to invest sufficient time and resources in understanding MiCA, conducting thorough compliance checks, and potentially modifying existing operations to align with these regulations. This could result in considerable changes in internal operations, from risk management practices to governance structures.

Type of financial services company	Implications of MiCA
Banking (commercial, retail, investment)	▸ Regulatory clarity and opportunity to offer clients access to crypto-assets ▸ Potential efficiency gains from more efficient payment and settlement infrastructures ▸ Efficiency gains from tokenization of assets through cost savings and better tradability (in the future) ▸ Requirement to disclose climate impact of token offering to clients ▸ Need for new infrastructure or partnerships (e.g., with crypto wallet providers, crypto trading platforms) ▸ New financing option via regulated token offerings
Asset management	▸ Regulatory clarity and opportunity to offer crypto-related funds (e.g., to diversify portfolios) ▸ New requirements regarding risk management practices and governance structures ▸ Requirement to disclose climate impact of crypto-assets included in investment products (e.g., crypto ETPs) ▸ Need for new infrastructure or partnerships (e.g., with licensed crypto custodians) ▸ Possibility of becoming a CASP (incl. authorization) to create a competitive differentiation
Trading/ exchanges	▸ Necessity to comply with MiCA requirements in case of crypto exposure (e.g., disclosure of climate impact of all tokens traded incl. required operational changes) ▸ Creation of level playing field with formerly unregulated marketplaces ▸ Regulatory clarity and opportunity to offer institutional clients access to crypto-assets ▸ Leverage synergies between traditional and crypto markets ▸ Regulatory clarity on primary and secondary marketplaces

TABLE 5 Implications of MiCA for financial services companies

There is also a paradigm shift in the way traditional financial services companies will interact with CASPs in the future. With MiCA, CASPs are no longer unregulated entities competing on an uneven playing field. Instead, they are counterparts in a regulated system rebalancing competition but also paving the way for potential collaborations. Financial service companies can leverage the technological expertise and crypto-market understanding of CASPs to enhance their service offerings or develop new crypto-related products.

Moreover, the environmental impact disclosure requirement of MiCA has significant implications. Given the increasing focus on sustainable finance and the environmental impact of businesses, companies will need to integrate environmental considerations into their decision-making process, particularly when dealing with crypto-assets. This could involve assessing, monitoring, and reporting the environmental impact of different tokens, potentially influencing which tokens to include in their services. The decision will not only impact clients but also companies' own corporate sustainability indicators and progress towards sustainability goals.

Finally, the advent of MiCA could bring about changes in the client relationships. As the regulation brings more clarity and security to the crypto market, clients might be more open to including crypto-assets in their portfolios. This would necessitate traditional financial service companies to develop appropriate services to meet this client demand and ensure regulatory compliance, potentially reshaping their service portfolio.

In conclusion, the implications of the MiCA regulation for traditional financial services companies that are active or plan to become active in the crypto-asset market, are multi-dimensional, requiring them to reassess their understanding of the crypto market, revamp their compliance systems, reconsider their competitive and collaborative strategies, incorporate environmental considerations, and redefine their client services.

> Traditional financial services companies must revamp their compliance systems, reconsider their competitive and collaborative strategies, incorporate environmental considerations, and redefine their client services to become active in the crypto-asset market.

Implications for non-EU based companies

MiCA also holds significant implications for non-EU based companies that want to benefit from the growing EU crypto market.

For non-EU companies, the primary challenge lies in understanding the implications of and compliance with the MiCA regulations. They need to familiarize themselves with the token types recognized under MiCA, the disclosure requirements, authorization processes, and operational stipulations that apply to issuers and service providers. Moreover, they might need to change their business practices to comply. For instance, non-EU companies need to adopt more stringent operational practices, fulfill capital and prudential requirements, and commit to transparency.

Furthermore, companies issuing tokens will have to ensure comprehensive whitepapers are prepared, commit to transparency in disclosing the sustainability and environmental impact of their tokens, and potentially seek authorization for issuing certain types of tokens.

These challenges can result in a substantial market shift. Companies based outside the EU need to reconsider their strategies for accessing the EU market, which may involve establishing a legal presence within the EU, forging partnerships with EU-based entities, or significantly reshaping their operational practices to comply with MiCA. This could potentially lead to a realignment of global crypto markets, with companies weighing the benefits of accessing the substantial EU market against the challenges of complying with the comprehensive MiCA regulations.

> For non-EU companies, the primary challenge lies in understanding the impact of MiCA on their business practices within the EU.

3 Outlook on MiCA in a global context

Looking ahead, MiCA might not only shape the EU crypto asset landscape but has broader implications on a global scale, as it marks a pivotal moment in the digital finance evolution and could have an impact on the development of similar regulations in other jurisdictions.

There will be spillover effects and interdependencies for other national and EU laws, including the German Electronic Securities Act (Elektronische Wertpapiergesetz – eWpG), the Future Financing Act (Zukunftsfinanzierungsgesetz – ZuFinG), the Financial Action Task Force's Travel Rule for crypto or the DLT Pilot regime.

Emerging crypto asset classes like decentralized finance (DeFi) platforms, decentralized autonomous organizations (DAOs), and non-fungible tokens (NFTs) might be subject to further regulation and consumer protection once MiCA proves successful, due to their disruptive potential to significantly alter how individuals and businesses interact with money and assets as well as their rapid growth and often complex nature.

In non-regulated or fragmented-regulated crypto jurisdictions e.g., the United States, legal uncertainty surrounding crypto-assets can be distressing for both users and crypto services providers.

The global crypto asset landscape could experience shifts as non-EU companies grapple with the implications of MiCA. They will have to make strategic decisions on whether and how to adapt to the MiCA framework.

In conclusion, MiCA is of significant global influence and as it charts new territory in the crypto-asset world and its implications are likely to reverberate beyond the borders of the European Union. The success of MiCA's implementation could signal a new era of crypto regulation worldwide, inspiring similar initiatives in other jurisdictions and reshaping the global crypto-asset landscape.

> "We expect follow-up regulations in the coming years as important players/ topics are not explicitly covered by MiCA yet (i.e. DeFi, DAOs, NFTs).
>
> **Andreas Wittkop**

4 How we can support you

The shift from an unregulated market to the full applicability of the MiCA regulation in less than two years represents a challenge for all market participants. Key players in the dynamically evolving crypto-asset ecosystem must plan diligently and early on to adapt their business model and operations to the requirements.

To allow for a streamlined adaptation, this regulation applies directly across all member states, without the need for distinct national legislations which would usually allow for additional timelines for adaptation.

Traditional financial players that want to offer services in the scope of MiCA should revisit and align their business models and operations. Startups can often capitalize on new regulations, being able to adapt faster. However, they also need to ensure their own compliance, including all necessary policies and procedures to be reviewed by the national competent authority.

How EY can help you

EY helps clients by leveraging its expansive global reach and an in-depth grasp of both local and EU directives. We support the largest financial institutions in the EU and globally in preparing for a seamless and reliable compliance with MiCA, but also offer our services to FinTechs.

The following are examples of our services:

- Digital asset strategy, identifying growth opportunities and selecting suitable partners for collaboration
- MiCA impact analysis, accounting for individual business model specifications
- Regulatory compliance support, including evaluation of current status and support with license application
- Process streamlining for efficient regulatory compliance operations

EY provides comprehensive support across all service lines, assisting clients from strategy through execution. This includes identifying relevant regulatory requirements, understanding strategic impacts, planning and coordinating implementation efforts, training staff, and developing consistent frameworks and processes to ensure efficient and compliant operations.

> With significant project experience in the digital asset space, EY offers end-to-end support to all affected industry parties.

> MiCA has the potential to serve as a blueprint in crypto regulation in case of a successful implementation.

Lena Klaaßen

How CCRI can help you

CCRI provides tailored solutions for CASPs and token issuers to comply with upcoming disclosure requirements under MiCA.

CASPs: CCRI can support CASPs with the mandatory disclosure of crypto-related environmental impact of all the tokens they offer on their website. CASPs have an obligation to publish climate impact information and other environment-related adverse effects on their website. CCRI tracks the daily electricity consumption and carbon emissions of 25 coins and tokens using harmonized methods and can generate data for any digital asset based on measurement-based assessments and emission allocation frameworks. CCRI provides standardized IT solutions to facilitate the website disclosures. For further information please visit www.green-mica.com

Token issuers: CCRI can support token issuers and other entities that have control over the creation of crypto-assets in the preparation of their whitepapers. The whitepapers must provide information on the adverse climate impact and other environment-related adverse effects of the crypto-asset's consensus mechanism.

CCRI specializes in assessing the environmental impact of blockchain networks, including electricity consumption and carbon emissions. By working with the leading token issuers, CCRI has built reliable and transparent methodologies to analyze the environmental impact of blockchain networks. Furthermore, CCRI is capable of allocating network emissions to all types of tokens, layer 2 networks, and other activities building on top of layer 1 networks. Therefore, CCRI can supply science-based data that is required to comply with the disclosure requirements for adverse impacts on the climate and environment.

CCRI | Indices | Ethereum's Merge | Miner & Investor Ranking | Data & Methods | FAQ | About | Main Page »

Coin	Type	Marketcap	Electrical Power	Electricity Consumption (annualised)	CO_2 Emissions (annualised)
Bitcoin BTC	PoW	$ 815,767,298,467	16.7 GW	158.1 TWh	80.0 Mt
Ethereum ETH	PoS	$ 271,690,697,739	866.1 kW	7,691,520.6 kWh	2,659,559.7 kg
BNB Chain BNB	PoS	$ 36,039,136,948	1.8 kW	15,618.5 kWh	6,044.4 kg
XRPL XRP	Other	$ 34,526,334,541	6.3 kW	55,345.6 kWh	21,897.0 kg
Solana SOL	PoS	$ 27,247,577,849	679.0 kW	5,956,498.1 kWh	2,224,981.5 kg
USDC USDC	Token	$ 24,491,114,931	N/A	8,667.2 kWh	2,988.8 kg
Cardano ADA	PoS	$ 14,407,515,211	108.0 kW	946,664.6 kWh	342,087.7 kg

Excerpt of CCRI's Crypto Sustainability Metrics as of November 2023 (see https://indices.carbon-ratings.com/)
CCRI provides up-to-date environmental impact assessments for leading crypto-asset networks and can support token issuers and CASPs in preparing their mandatory and voluntary sustainability indicator disclosures.

5 Contacts

About EY-Parthenon
EY-Parthenon teams work with clients to navigate complexity by helping them to reimagine their eco-systems, reshape their portfolios and reinvent themselves for a better future. With global connectivity and scale, EY-Parthenon teams focus on Strategy Realized – helping CEOs design and deliver strategies to better manage challenges while maximizing opportunities as they look to transform their businesses. From idea to implementation, EY-Parthenon teams help organizations to build a better working world by fostering long-term value.

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About CCRI
CCRI – Crypto Carbon Ratings Institute – is a research-driven company providing data on sustainability aspects of cryptocurrencies, blockchain and other technologies. The interdisciplinary team has built a multi-year research track record with a specific focus on cryptocurrencies and their sustainability impacts. CCRI uses the most up-to-date data sources as well as methods based on peer-reviewed studies published in renowned scientific journals. CCRI provides insights that help their clients to understand and manage crypto-related ESG exposure. CCRI works with a broad range of clients including institutional investors, exchanges, and blockchain networks. As the leading provider of sustainability data and indicators for crypto-assets, CCRI has deep experience in helping clients to conduct crypto-related climate disclosures.

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Creative Design Germany | KKL 2401-1137
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