



**COUNTRY
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The Netherlands BLOCKCHAIN

Contributing firm

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This country-specific Q&A provides an overview of blockchain laws and regulations applicable in The Netherlands.

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THE NETHERLANDS BLOCKCHAIN



1. Please provide a high-level overview of the blockchain market in your jurisdiction. In what business or public sectors are you seeing blockchain or other distributed ledger technologies being adopted? What are the key applications of these technologies in your jurisdiction?

Blockchain use is widespread in that it has found its way into a multitude of different industries in the Netherlands. That said, there is a clear divide between private-use applications versus large scale applications. Traditionally, most of the developments in the Netherlands provide solutions for companies, governmental institutions or other large-scale operations. These include amongst others healthcare, financial technology, SSI, logistics and supply chain management. The applications for private use and/or consumers now seem to slowly catch on, mainly consisting of cryptocurrency trade. The bulk adoption is still in larger scale operations.

2. To what extent are tokens and virtual assets in use in your jurisdiction? Please mention any notable success stories or failures of applications of these technologies.

As in most jurisdictions, the highest 'use' of tokens and virtual assets is still in the trade thereof. As for NFT's, the field of NFT art is quickly growing. Also, NFT gaming is rapidly developing in the Netherlands. One interesting and globally widely adopted use case is a platform that uses blockchain technology to regulate the sale of digital tickets (represented by NFTs) for events. It enables the reselling of tickets in a closed environment, enabling smart tickets while combatting fraud and unwanted ticket resales.

3. To what extent has blockchain

technology intersected with ESG (Environment, Social and Governance) outcomes or objectives in your jurisdiction?

In light of current developments around climate change, numerous big players in the energy sector have committed to utilising blockchain technology to build towards the energy transition. For example, Shell partnered up with the Dutch Blockchain Coalition to reach their goal of increasing the development of carbon-neutral energy sources. Albert Heijn (Ahold Delhaize) partnered with Refresco to make the orange juice chain transparent, using blockchain. Moyee does the same with coffee for a fairer value chain.

4. Has COVID-19 provoked any novel applications of blockchain technologies in your jurisdiction?

One of the main challenges during the COVID-19 pandemic has been to limit points of contacts, which caused an increase in digital payments at the expense of cash payments. The increase of digital payments was one of the main points of discussion during the Euroforum's annual conference on future payments, which was held in Amsterdam in September 2021. One of the main questions was whether COVID-19 had a real impact on the way people conduct payments or whether it only accelerated existing trends. There seems to be a general consensus that the latter is the case. But even though COVID-19 might not have sparked any novelties in particular, it has rooted the move to digital payments deep into the foundations of Dutch society. This trend towards digital payments was also noted by the Dutch Central Bank (*De Nederlandsche Bank*, "**DNB**"), which published market research showing that in 2020 79% of payments were made using a payment card, smartphone or wearable. We expect this will trigger the development of more blockchain applications in this sector.

5. Please outline the principal legislation and the regulators most relevant to the use of blockchain technologies in your jurisdiction. In particular, is there any blockchain-specific legislation or are there any blockchain-specific regulatory frameworks in your jurisdiction, either now or envisaged in the short or mid-term?

There is currently no legislation in place that specifically regulates blockchain technology. Regulation depends instead on the design, nature and targeted sector of its application. The same can be said for regulators that might be relevant to blockchain technology and its applications.

However, in general, the most prominent regulators on this subject are the Data Protection Authority (*Autoriteit Persoonsgegevens*), the Netherlands Authority for Consumers and Markets (*Autoriteit Consument & Markt*), DNB and the Dutch Authority for the Financial Markets (*Autoriteit Financiële Markten*, the “**AFM**”).

Pursuant to the European anti-money laundering directive (AMLD5) certain crypto service providers are subject to a registration regime and ongoing supervision by DNB since May 2020.

See question 22 for upcoming legislation with regard to blockchain and crypto-assets, which is expected to enter into force in 2024.

6. What is the current attitude of the government and of regulators to the use of blockchain technology in your jurisdiction?

The Dutch government and the Dutch financial regulators – DNB and the AFM – maintain a positive attitude towards blockchain technology and its applications.

The Dutch government has allocated a budget to further research blockchain technology. Furthermore, the Digitalisation Strategy adopted by the Dutch Government in June 2018, encourages the development of new applications using blockchain technology. For this purpose, the Dutch government is participating in public-private partnerships and has founded (jointly with market parties) the Dutch Blockchain Coalition.

Specifically in relation to the financial sector, DNB and the AFM have been receptive to new, innovative technologies and developments in the financial sector, including those involving blockchain technology. To

support innovation in the financial sector the InnovationHub and Regulatory Sandbox were set up in 2017. See question 7 below for further information on the InnovationHub and Regulatory Sandbox.

Furthermore, DNB, together with the Ministry of Finance, is also looking into whether blockchain solutions can increase efficiency in payment and securities transactions.

From a Dutch tax perspective, subject to certain conditions, certain R&D tax advantages may be available for Dutch companies, which could also be beneficial for companies using blockchain technology.

7. Are there any governmental or regulatory initiatives designed to facilitate or encourage the development and use of blockchain technology (for example, a regulatory sandbox)?

The Netherlands is one of the few EU member states that have both an InnovationHub and a regulatory sandbox. Both initiatives can count on involvement from supervisory authorities from multiple sectors (financial, privacy, competition). With respect to both initiatives, DNB and the AFM have stated that they regularly receive questions from market parties related to blockchain technology through these portals.

The InnovationHub is not a ring-fenced testing environment for unauthorised products and services, but rather functions as a sounding board for market parties. The InnovationHub provides support to, inter alia, companies with questions about the application of existing regulation to innovative financial products and services, including those based on blockchain technology.

The Dutch regulatory sandbox provides for alternative interpretations of open standards within the existing legal framework or formal dispensation from specific legal requirements for, inter alia, companies developing innovative products, services or business models, including those based on blockchain technology.

DNB further intends to be one of the frontrunners amongst European supervisory authorities when it comes to central bank digital currencies. The initial exploratory phase, which involved technical experiments conducted with other central banks in the euro area and European Central Bank and interviews with stakeholders, has been completed and as of 14 July 2021, DNB is exploring what a digital euro should look like exactly. This phase should take about two years, after which will

be decided whether a digital currency will become a reality.

8. Have there been any recent governmental or regulatory reviews or consultations concerning blockchain technology in your jurisdiction and, if so, what are the key takeaways from these?

Already in 2018, the AFM and DNB published recommendations for a regulatory framework for cryptocurrencies (including ICOs) in which they recommended introducing an authorization regime for certain cryptocurrency services and amending certain aspects of the existing EU regulatory framework.

A similar authorization obligation has become a reality with the introduction of an ex-ante registration regime for crypto service providers, who are in scope of AMLD5. Efforts to amend the European regulatory framework to enable blockchain-based development of SME funding and reconcile the national and the European regulatory definition of security are ongoing.

The Dutch government responded to the consultation on the EU framework for Markets in Crypto Assets in March 2020. In its response, the Dutch government advocates for alignment with the standards as set by the Financial Action Task Force (as recently amended to address AML/CFT cryptocurrency risks) at the EU level. The Dutch government also highlighted the need to include rules on consumer protection, market integrity and capital requirements in the European regulatory framework for crypto assets.

The Dutch Ministry of Justice and Security has carried out an exploratory study into the social and ethical implications of blockchain. This research has mapped out the possible ethical and societal implications of blockchain technology. It also examined the extent to which the government itself could use blockchain technology in the context of implementation, supervision and enforcement of legislation, the prerequisites for that use, and what this use would mean for legislation.

The European Union Blockchain Observatory & Forum has published a report on blockchain in relation to the General Data Protection Act ("GDPR"). The Blockchain Observatory & Forum concludes that GDPR compliance is not about technology, but about how technology is implemented. The Dutch Blockchain Coalition was actively involved in the development of the report "Blockchain and the GDPR".

On an EU level, legislation is proposed to further

stimulate technological innovations in the financial sector with a framework for pilot projects that would allow a temporary lift of regulatory requirements.

9. Has any official guidance concerning the use of blockchain technology been published in your jurisdiction?

As far as we are aware, no official blockchain-specific guidance has been published in our jurisdiction. The AFM and DNB have only stated that they consider blockchain technology as interesting and promising, but also see certain risks when it comes to virtual currencies.

However, as existing official guidance by the Dutch regulators is, in principle, technology-neutral, it may still apply for blockchain applications (for example, guidance on outsourcing by financial institutions). Guidance has been published on certain specific topics relating to blockchain applications, such as, for example, ICOs and cryptocurrency.

10. What is the current approach in your jurisdiction to the treatment of cryptocurrencies for the purposes of financial regulation, anti-money laundering and taxation? In particular, are cryptocurrencies characterised as a currency?

Cryptocurrency as currency

Cryptocurrencies are not considered as currency (money) nor legal tender by the Dutch government or financial regulators. Cryptocurrencies are not considered to possess, whether fully or partially, the common economic characteristics of a currency (unit of account, store of value, and medium of exchange). That being said, centrally issued stablecoins backed by fiat currency may qualify as electronic money and there is some debate about whether these stablecoins should be considered fiat currency in the meaning of AMLD5.

Financial regulation

The Dutch Act on the Financial Supervision ("AFS") and rules promulgated thereunder, set out the Dutch financial regulatory framework, and regulate financial products, activities and services in the Netherlands.

Currently, the AFS nor EU regulations that apply directly in the Netherlands, specifically regulate cryptocurrencies and activities or services related to cryptocurrencies (other than the AML registration regime for certain

crypto service provider as described below). This is likely to change in the future, as the European Commission has recently published a proposal for the Markets in Crypto-assets Regulation (“**MiCA**”), which will, inter alia, introduce an authorisation requirement and certain ongoing requirements for cryptocurrency service providers. This regulation is expected to enter into force in 2024.

Cryptocurrencies and activities and services related to cryptocurrencies may, however, still constitute regulated products or activities under the AFS if, by their design or nature, they fall within the definition of any of the financial products or financial activities or services regulated by the AFS. For example, centrally issued cryptocurrencies that are pegged to a fiat currency (stablecoins), which are accepted as a means of payment by other persons than the issuer of such cryptocurrency, may qualify as electronic money, which is regulated under the Dutch implementation of the EU Electronic Money Directive (EMD). Similarly, cryptocurrencies may qualify as securities or financial instruments under the Dutch implementation of the Markets in Financial Instruments Directive (MiFID), which will trigger various rules relating to their issuance, trade and other services in relation to such cryptocurrencies.

Anti-money laundering

Based on European Anti-money laundering legislation (AMLD5), custodian wallet providers and providers of exchange services between cryptocurrencies and fiat currencies, have been brought within scope of the Dutch AML/CFT legislation (Wwft). These providers must apply for a registration with DNB. Obtaining such registration is a condition to being allowed to provide services in or from the Netherlands. In order to be eligible for registration, a provider, inter alia, needs to demonstrate that it has systems in place to properly fulfil all the requirements of the Wwft and sanction regulations. This includes having procedures in place for the identification and verification of clients and their ultimate beneficial owners (UBOs) and robust transaction monitoring systems. Furthermore, the (co-)policymakers and certain (in)direct shareholders of these crypto service providers will need to be assessed for suitability and/or integrity by DNB. Persons are deemed suitable if they possess sufficient relevant knowledge, experience and skills to adequately perform their duties as (co-)policymakers for a crypto service provider. Integrity is assessed on the basis intentions, actions and antecedents.

The above registration requirement, in principle, also applies to custodian wallet providers and providers of exchange services between cryptocurrencies and fiat currencies, who are based in other EU Member States or

outside the EU but offer their services in the Netherlands, regardless of whether those providers are already registered in that – or any other – Member State.

11. Are there any prohibitions on the use or trading of cryptocurrencies in your jurisdiction?

There are currently no regulations that specifically prohibit the use or trading of cryptocurrencies in the Netherlands. However, as further detailed under question 10 above, cryptocurrencies and activities and services related to cryptocurrencies may still constitute regulated products or activities under the AFS if, by their design or nature, they fall within the definition of any of the financial products or financial activities or services regulated by the AFS. Offering such products or providing such services is prohibited without obtaining the relevant authorisation.

12. To what extent have initial coin offerings taken place in your jurisdiction and what has been the attitude of relevant authorities to ICOs?

The Netherlands has seen its fair share of ICOs. The view of the Dutch government and the financial regulators, with respect to cryptocurrencies and ICOs, is two-fold: on one hand ensuring the prevention of criminal and fraudulent use of cryptocurrencies and ICOs, while on the other hand also acknowledging the potential benefit and potential (see question 9).

In previous years, issuers of ICOs generally sought to avoid regulation, with varying degrees of success. We now also see that the market is starting to embrace the advantages of the clarity and certainty, which comes with regulation (for example, the rise of STOs), including making use of legal exceptions and exemptions to, for example, securities offerings. In our opinion, this marks the next evolutionary phase for cryptocurrencies in becoming mature market instruments.

13. If they are permissible in your jurisdiction, what are the key requirements that an entity would need to comply with when launching an ICO?

There are, in principle, no specific legal requirements for ICOs in the Netherlands. Potential legal requirements for an ICO largely depend on the characteristics of the token or coin offered via the ICO. If an ICO entails an offering of securities because the tokens qualify as such, or as

attracting of repayable funds from the public, certain financial laws and regulations may apply to such ICO. If the ICO is directed at consumers, then consumer protection laws may also apply.

14. Is cryptocurrency trading common in your jurisdiction? And what is the attitude of mainstream financial institutions to cryptocurrency trading in your jurisdiction?

Although it appears to become more popular every year, reliable and current data regarding cryptocurrency trade is not generally available in the Netherlands. 2021 research did show that approx. 700,000 people in the Netherlands (4%) own Bitcoin. No mainstream financial institutions offer or otherwise support cryptocurrency trading, but we see a trend of crypto currency providers focusing their services solely on professional investors or high net worth individuals. However, mainstream financial institutions still generally tend to treat cryptocurrencies as a potential AML risk (for example, expressed by the questions posed to individuals receiving proceeds from cryptocurrency trades in their bank accounts).

15. Are there any relevant regulatory restrictions or initiatives concerning tokens and virtual assets other than cryptocurrencies (e.g. trading of tangible property represented by cryptographic tokens)?

There are currently no regulatory restrictions in the Netherlands specifically concerning tokens or virtual assets other than cryptocurrencies. However, tokens or virtual assets may be in scope of financial services legislation when qualifying as, for example, financial instruments. Offering such products or providing such services is prohibited prior to obtaining the relevant authorisation. Furthermore, property law imposes specific requirements for the transfer of registered objects such as real estate and securities (also see question 16).

16. Are there any legal or regulatory issues concerning the transfer of title to or the granting of security over tokens and virtual assets?

Tokens can represent and otherwise refer to a wide variety of rights, obligations and instruments. Where it concerns native blockchain tokens, such as Bitcoin or

Ether, in practice no issues arise, as there is no value or rights outside the blockchain that the coin token refers to.

However, certain tokens may represent a claim on a specific issuer. For example, the token may represent a right to a monetary or stablecoin sum in case a specific real estate unit or (real world) artwork is sold or when a company issues dividends. The transfer of such legal claim is, in principle, subject to certain defined property law requirements. It is still a legal grey area how these requirements translate to blockchain technology and whether a token transfer may be deemed to satisfy these requirements.

In addition to the above, in the Netherlands, the transfer of certain assets, such as shares and real estate, must take place by means of a notarial deed. A token transfer does not satisfy the conditions for a valid transfer of such assets. Therefore, a token cannot directly represent a share or real estate in the Netherlands. However, we are aware of certain initiatives, which aim to link certain assets to a blockchain token by having an intermediary, such as a trust or a foundation, own and hold the asset and in return issue tokens that represent a claim relating to the value of the relevant asset.

17. How are smart contracts characterised within your legal framework? Are there any enforceability issues specific to the operation of smart contracts which do not arise in the case of traditional legal contracts?

A smart contract is generally understood to be a continuous computer program operating on a blockchain network. Such programs are the key parts of smart contract platforms such as Ethereum or Solana. The execution of the program is guaranteed, sometimes even for an indefinite period, as the blockchain network, in principle, continues to run. Like general legal contracts, smart contracts are agreements between two or more parties. Smart contracts are, however, written in code and are executed autonomously. Given this difference, it cannot always be said if smart contracts are 'enforceable' or not. Smart contracts are simply executed or run, such as any other type of code (software).

Agreements in the Netherlands are in principle form-free. An agreement between parties can therefore take the form of a smart contract. Parties could also agree separately to have their legal agreement executed by a smart contract. This contract could then be enforceable as any other contract, depending, for example, on

whether the parties' intentions become sufficiently clear from what was recorded in the smart contract. In principle, information on blockchains, as with all information, can be used as evidence in court.

18. To what extent are smart contracts in use in your jurisdiction? Please mention any key initiatives concerning the use of smart contracts in your jurisdiction, including any examples relating to decentralised finance protocols.

Given the explanation of smart contracts in the previous question, practically all blockchain initiatives employ or work with smart contracts to some extent.

We are aware of a few examples of decentralised finance protocols. One well-known example is a decentralised blockchain-agnostic layer 2 solution that aims to be the link between traditional finance and decentralized (blockchain-based) finance by simplifying the conversion of traditional assets into digital assets. Another decentralized example seeks to accommodate financial institutions wishing to enter the decentralized finance space by providing a self-sovereign framework based on what is called 'trusted circles'. These trusted circles consist of groups of trusted parties that each comply with local regulations within their jurisdiction, thus assuring regulatory compliance for that group and eliminating the opaqueness of 'normal' decentralized platforms.

19. Have there been any governmental or regulatory enforcement actions concerning blockchain in your jurisdiction?

The AFM and DNB have issued various warnings on the volatility of the crypto markets, scams involving cryptocurrencies and related issues.

The AFM has also repeatedly stated that it can only impose enforcement actions when it concerns regulated activities under the AFS. For example, when crypto assets qualify as financial instruments like securities or units in a collective investment undertaking.

The list of (published) enforcement actions by the AFM and DNB against crypto service providers is, however, limited. In 2018, the AFM issued an order under incremental penalty to the company Dutch Crypto Mining B.V. for not complying with information requests of the AFM, as a result of which the AFM could not determine potential (non)compliance. DNB, as the main supervisory authority for crypto service providers, has an

equally short list of (published) enforcement actions. On 18 August 2021, DNB issued a warning against Binance, stating that Binance illegally provides crypto services in the Netherlands without the required registration. Enforcement actions against Binance have not been published to date.

We are not familiar with any enforcement actions of the Dutch Data Protection Authority concerning blockchain to date.

20. Has there been any judicial consideration of blockchain concepts or smart contracting in your jurisdiction?

The first Dutch judicial considerations related to blockchain concerned the legal qualification of bitcoins. Case law on the qualification of bitcoins can also be relevant for other cryptocurrencies and possibly also for other blockchain-based tokens and digital assets.

More recently, in 2021 the Dutch Central Bank (DNB) and crypto service provider Bitonic faced each other in court on the interpretation of certain AML/CFT requirements imposed by DNB as part of the registration requirement for crypto service providers under AMLD5. This resulted in DNB amending part of its requirements for the registration.

There have also been several court cases around IP rights and licensing of blockchain technology. Finally, there have been various court cases on money-laundering using crypto-assets, theft of crypto currencies and unfair commercial practices around token offerings.

21. Are there any other generally-applicable laws or regulations that may present issues for the use of blockchain technology (such as privacy and data protection law or insolvency law)?

GDPR

Compliance with the GDPR can be challenging for companies operating blockchains or building applications on blockchains. The GDPR applies to organisations that process personal data. Processing is broadly defined, and it includes collecting, storing and destroying data. The GDPR poses several challenges for blockchain solutions, most notably assigning the obligations of data controllers and processors to particular actors in blockchain systems and compliance with the users' rights to have personal data deleted or corrected. These GDPR requirements may be at odds with a decentralised

blockchain-based data governance model and the concept of immutability of data stored on a blockchain.

Minimising the risks of colliding with the GDPR

If no personal data is processed on a blockchain, the GDPR does not pose a problem for its operator. However, personal data is a broad term that, under certain circumstances, can even include the colour of a car or the public key to a crypto wallet. To minimise GDPR compliance risks, blockchain operators should apply robust anonymisation techniques (for example, by storing an encrypted anonymous hash of the personal data on-chain – with the underlying and identifiable personal data being kept off-chain). Although the application of such technical solutions may not exclude the applicability of the GDPR altogether, it may substantially enhance the blockchain operator's means to meet the GDPR requirements. In practice, complete anonymisation is difficult to achieve, especially in a public, permission-less blockchain, because the operator may not be able to control all data uploaded by the users of the blockchain.

Stay in control

The use of private, permissioned blockchains increases the chances of GDPR compliance, because the operator can impose and enforce a governance framework for users via contracts that set out each actor's rights and obligations. It is worth noting that ensuring GDPR compliance is specific to a particular use of blockchain, not to the technology itself. Therefore, obtaining legal advice tailored to a particular use of blockchain is recommended, because the consequences of a GDPR violation can be severe, with fines of up to 4% of annual worldwide turnover or EUR 20 million (whichever is greater), criminal liability, and claims for damages by individuals or via class actions.

Insolvency law

Blockchain applications in general – and especially those involving cryptos and smart contracts – introduce all kinds of practical issues for curators in the event of bankruptcy. As an example, a smart contract which includes a payment or transfer of title if certain requirements are met, would not typically cancel or hold that payment or transfer of title if insolvency law requires so – unless, of course, legal requirements are included in the smart contract code, with the insolvency register as oracle.

Property law

Business models based on on-chain transactions may be confronted with regulatory uncertainty and/or specific

requirements when they involve, for example, financial instruments such as securities or when they concern registered properties, such as real estate objects. The latter requirements often stem from specific property law requirements regarding the transfer of ownership.

22. Are there any other key issues concerning blockchain technology in your jurisdiction that legal practitioners should be aware of?

There is currently no legislation in place that specifically regulates blockchain technologies. Instead, regulation depends on the design, nature and targeted sector of its application.

Dutch supervisory authorities and policymakers have a positive stance towards technological innovations. For example, DNB takes a leading role in EU central bank digital currencies (**CBDC**) and has made clear in the past that it sees potential benefits for the use of blockchain in the financial sector.

At the same time, supervisory authorities have issued warnings with regard to crypto scams and companies using blockchain technology for regulated activities without the required licence. In short, Dutch supervisory authorities take blockchain and crypto seriously and expect the market to do the same.

Specific crypto and blockchain legislation is on its way in Europe. The European Commission has proposed a digital finance strategy package that includes proposals for:

- a Regulation on a pilot regime for market infrastructures based on distributed ledger technology (**DLTR**)
- a Regulation on Markets in Crypto-Assets (**MiCA**); and
- a proposal for a Regulation on digital operational resilience for the EU financial sector (**DORA**).

DLTR creates a bespoke legal regime for the practical application of DLT in post-trade services. The DLTR provides a regulatory framework for the development of DLT multilateral trading facilities (MTFs) and DLT securities settlement systems, including for the granting and withdrawal of specific permissions and exemptions.

MiCA regulates crypto-assets not covered elsewhere in European financial services legislation, including a wide range of crypto-asset service providers. MiCA also contains rules relating to the issuance of crypto-assets

and market abuse rules in relation thereto.

DORA is not focused on blockchain or crypto-assets, but on the operational resilience of financial undertakings

and critical third-party service providers such as cloud providers. It contains, amongst others, requirements on ICT risk management and resilience testing. DORA will, however, also apply to crypto-asset service providers.

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