

MINISTRY OF CULTURE

—

HIGH COUNCIL FOR LITERARY AND ARTISTIC PROPERTY
(CONSEIL SUPÉRIEUR DE LA PROPRIÉTÉ LITTÉRAIRE ET ARTISTIQUE or CSPLA)

Mission report on non-fungible tokens (NFT)

Providing a secure legal framework to free up the use of tokens

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Its content reflects solely the views of the authors

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Foreword by the Chairman

Technological developments and their uses are a permanent challenge for the creative process and its economy. Intellectual property rights, whose function is to encourage their development, are constantly being challenged as to their suitability for dealing with them.

Anticipation is therefore more than ever a necessity in order to prevent the emergence and development of areas in which the law no longer fulfils its function, leading to the destruction of economic and cultural values, which is often long-lasting and far-reaching. Within this process of evaluation and adaptation, the work of the CSPLA plays an essential role.

After the mission on cloud computing, the mission on blockchain, and the mission on virtual and augmented reality, the decision to launch a mission on NFTs was adopted by Chairman Olivier Japiot.

The multifunctionality of non-fungible tokens (NFTs) and the diversity of their technical-contractual operating modes create a legal complexity that is reflected in the scope of the mission statement.

The mission's objective is to identify the main points of the technical and legal framework of NFTs and the issues at stake for the various cultural sectors. Indeed, all sectors will eventually be affected: from graphic arts to cinema, from publishing to music, and the private sector as well as the public sector. The valuable contributions of the many people interviewed and the tireless and decisive work of the rapporteur enabled this initial assessment and the accompanying recommendations to be drawn up.

The findings are twofold.

Positive for intellectual property, the versatility of which enables it to accommodate and grasp this "digital certificate of rights" robustly, regardless of the nature of these rights and their purpose, which does not exclude some adjustments on certain points.

Reserved as to the relevance and therefore the legal validity of certain operating modes of the functioning of NFTs, with regard to intellectual property law, without neglecting consumer rights. A traditional phenomenon in the emergence of an economic sector in new technologies.

The considerable opportunities for developing cultural activities offered by NFTs, both for public and private actors, can only be realised after certain clarifications in practices. A joint effort by all is essential to establish best practice guidelines covering a balanced and secure framework for the various uses of NFTs, with a view to their essential role in the new and expanding economic and cultural space of the "metaverse".

Jean Martin

Summary of the report

A new and complex technological instrument, subject to ongoing innovation, the non-fungible token is difficult to describe with any accuracy, although its characteristics make it similar to a rights certificate.

In concrete terms, the acquisition of a non-fungible token involves acquiring a token registered on the blockchain associated with a "*smart contract*" that refers to a digital file (image, sound, video, etc.).

In law, the NFT remains very difficult to qualify with precision. It is not quite the same as a token as defined by the Monetary and Financial Code, although certain characteristics justify its being treated as such for the application of tax or financial rules, nor, with certain exceptions, as a work of art within the meaning of the Intellectual Property Code, its *smart contract* cannot, given the state of observable technical capacities, contain the underlying file in the blockchain at a reasonable cost, nor a certificate of authenticity, in the absence of any third party verifying the authenticity of the associated file or its authorship. The mission proposes to consider it as a title to the token registered in the blockchain. This may be associated with other rights over the digital file to which it refers. The object, nature, and scope of these rights vary according to the intention of the issuer as expressed by the technical and possibly legal choices associated with the smart contract.

Non-fungible tokens present many use cases, representing an opportunity for the cultural sector as a whole.

Indeed, the main characteristic of the NFT, which is to create a form of property in a digital universe characterised by the potential for infinite reproduction of works, makes it a technology favoured by digital artists, who are often exposed to copying and even plagiarism on the Internet.

However, the cultural uses of NFTs are not limited to digital art. In the film, music, publishing, photography, and audiovisual sectors, for museums and public cultural institutions, NFTs are likely to enable better promotion of cultural products to new audiences. They are also likely to strengthen communities of use, thus offering the sector new sources of revenue, generating new creative potential.

To take full advantage of this, however, a number of thorny legal and technical issues need to be clarified, particularly in the field of intellectual property, against a speculative and uncertain financial backdrop that may blur the prospects for development in culture.

From a legal point of view, the NFT phenomenon raises new questions concerning intellectual property, the ownership of rights, their management, the applicability of the resale right and its possible automation by smart contracts, the application of this technology to public collections that are characterised by their non-transferability, the applicable financial and tax framework, the status of platforms, and the possible applicability of consumer law to their activity.

With regard to works and objects belonging to the public domain, the creation of NFTs is likely to be carried out by anyone, due to the absence of rights over the image of the property of public persons, with the exception of the image of buildings in national domains. Although

they cannot create a unique access right to works in public collections or their reproductions, NFTs call into question the strong policy of opening up public data and making public collections accessible to all.

With regard to intellectual property, it is clear that the purchaser of an NFT is not necessarily the owner of the property rights attached to the associated digital file, unless the rights are contractually assigned or licensed. This implies that the purchaser cannot, unless explicitly provided for, perform any act of exploitation of the work or prohibit a third party from performing such acts. Nor does the creation of an NFT prevent the application of the resale right, if the legal conditions defined by the intellectual property code are applied.

Thus, NFTs do not fall into a legal vacuum. By default, the protected files to which they link remain subject to copyright and related rights. Unless there is an explicit contract or general terms & conditions provided by the platform, NFTs are not automatically transferred with all the rights associated with these files.

A key issue in this respect involves making the platforms on which NFTs are exchanged accountable in order to ensure respect for literary and artistic property. In view of their characteristics, the mission recommends regulating them as providers of online content sharing services within the meaning of Article 17 of Directive 2019/790 on copyright and related rights in the digital single market.

On the socio-economic level, the energy-intensive nature of blockchains, the numerous risks to the security of tokens, and the volatile and speculative nature of the market are likely to blur the opportunities and slow down the development of NFTs, while consumer protection in the face of this multiple and technologically complex phenomenon remains insufficient.

Hence, while NFTs are particularly full of potential for the cultural sector, they are not without risks and vulnerabilities for the authors and rights holders as well as for consumers.

To this end, the challenge for the public authorities seems to be securing the use of this technology in order to encourage the most virtuous use cases that will persist beyond the speculative phenomenon observed over the last 18 months.

The mission therefore focused on proposing ways to secure the use of cultural NFTs in compliance with applicable law and to clarify the existing regime. This will ensure that copyright and related rights are respected while enabling an ambitious public policy for the deployment of this technology in the cultural sector.

Word of the year 2021¹, Non-Fungible Tokens (NFTs) are tokens that can be exchanged on a blockchain, in crypto-currency, or in euros via platforms that perform the conversion. They are a form of certificate of ownership associated with a virtual or physical object. Their main interest is in providing a technical solution to the difficulty of controlling the distribution of content, particularly images, in a digital world characterised by the potential for infinite file reproduction. This makes possible a form of ownership that contributes to their development in a large number of sectors, including the cultural sector.

A bit of background ...

Although their beginnings can be traced back to the work of New York artist Kevin McCoy², the recent history of NFTs begins with *cryptopunks*, established in 2017 as an experiment started by Matt Hall and John Watkinson, founders of software company Larva Labs. They had fun creating characters with an algorithmic pixelated character generator they built using gender, species, hair, skin, beauty mark, hat, glasses, and so on. Thus, were born the *cryptopunks*, a collection of 10,000 small 8-bit images of punks, created as non-fungible tokens exchangeable on the Ethereum blockchain, sometimes used as profile pictures by their holders on social networks. These unique characters consist of men, women, sometimes apes, zombies, or aliens. They are represented with the dress and visual codes of punk culture, which were initially distributed for free to holders of a cryptocurrency wallet on the Ethereum blockchain, as signs of affiliation and distinction within this community.

Cryptopunks was then followed by *Crypto-kitties*, a game on the same Ethereum blockchain developed by Canadian studio Dapper Labs, on which players could buy, collect, raise, and sell these cryptokitties, which are non-fungible tokens exchangeable on the platform of the same name. These little cats feature various attributes just like *cryptopunks*, with the ability to breed to generate new ones. Thus, the year 2017 marked the biggest large-scale "Bull Run"³ related to NFTs.

At the same time, the first platforms specialising in the buying and selling NFTs emerged.

Launched in 2017 on the back of the cryptokitties boom, Opensea.io is the reference site for the NFT secondary market, whether artistic or not, sold either at a fixed price, top-down auction, or best price auction, and for NFT creation.

Founded in 2017 and launched in 2018, the SuperRare platform ambitioned to become a true social network of the art world, enabling the connection of artists and collectors so that they can create, sell, and collect digital art in the form of NFTs on the Ethereum blockchain.

¹ "The Collins Word of The Year 2021" (<https://www.collinsdictionary.com/woty>).

² His work, *Quantum*, an octagon-shaped animation, is the first to have a digital property certificate placed on the Namecoin blockchain. The characteristics of this unique work, associated with a digital certificate, and exchangeable on the Namecoin blockchain thus bestowed upon it a number of NFT characteristics.

³ At this point, a massive number of people who were unfamiliar with cryptocurrencies began buying them in large quantities.

Other examples include Rarible and Async.art in 2019, Nifty Gateway, Artblocks, and Foundation.app in 2020, and finally Hic and Nunc in 2021, each of which contributed to shaping the crypto-art market.

However, prior to 2020, NFTs remained committed to confidential use. During the health crisis, cryptocurrencies were seen by some as a safe haven, while access to culture was compromised by restrictions and closures during the lockdowns. This period marked the beginning of the current NFT craze, initially in the art market.

2021: NFT meets the contemporary art market.

On 11 March 2021, American artist Beeple's digital work "*Everydays: The First 5000 days*", a collage of 5,062 digital vector works begun in 2007, was sold for \$69.3 million by Christie's auction house. A few months later, in December 2021, the work "*The Merge*" by the artist Pak sold for \$91.9 million on the online auction platform NIFTY. NFT no. 7523, the only crypto-punk to wear a surgical mask, was auctioned by Sotheby's for \$11.7 million on 10 June 2021.

Beyond these spectacular sales, the technological potential of blockchain and NFTs are at the origin of what some people call a new artistic trend. This is inherent to what some call the "web3", the decentralised Internet that operates mainly on blockchain: crypto-art,⁴ characterised by the "native" character of works, associated from the moment of their conception with an NFT.

In spite of its novelty, the NFT market nevertheless appears not to escape completely from the rules shaping contemporary art, as studied for example by the sociologist Nathalie Heinich.⁵

If in the classical and modern paradigm, the work of art was an end in itself, expressing the artist's personality, sensibility, and even interiority, the paradigm of contemporary art has for many years been based on the fact that "the work of art no longer resides in the object proposed by the artist", but in something "beyond" the object. It is now the interplay with limits, institutional frameworks, exhibition space, and time that generates new artistic forms. The sociologist cited, for example, Yves Klein's "Exposition du vide" in 1958, in which nothing was exhibited, only the white walls of the gallery. A few years later, Yves Klein even decided to sell pieces of the Exposition du vide, "zones of immaterial pictorial sensitivity", associated with guarantee seals sold for "20 grams of fine gold", making him, in the eyes of some, the precursor of the NFT.⁶

Blockchain offers contemporary art the possibility of pushing back new limits and questioning the very concepts of possession and ownership of a work of art, in a form of "aesthetics of the exceeded limit", to use the title of Paul Ardenne's essay⁷: what does the holder of the NFT really own? Is the value of the NFT solely artistic? What does it mean to own a work of art? Does technology stand in the way of art?

⁴ *NFT Revolution - Birth of the crypto-art movement*, John Karp and Remy Peretz.

⁵ Nathalie Heinich, *The paradigm of contemporary art. Structures of an artistic revolution*.

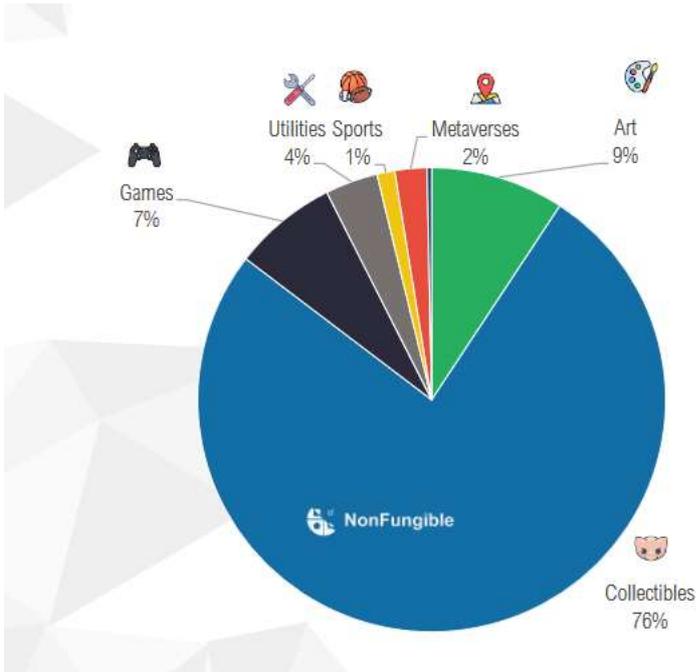
⁶ "The original NFT? Sotheby's to offer a receipt for an invisible work by Yves Klein for €500,000", The Art Newspaper (<https://www.theartnewspaper.com/>).

⁷ Paul Ardenne, *Extreme. Esthétique de la limite dépassée*, Paris, Flammarion, "Essais", 2006

Although certain obstacles remain in the way of the "artification" of NFTs⁸, it is easy to understand the almost inevitable alliance between contemporary artistic creation and this technology, symbolised by the major sales of 2021.

However, the NFT phenomenon now extends far beyond the borders of the art world.

Thus, in 2021, the artistic NFT sector represented a sales volume of \$2,798,220,643, mainly in the secondary market, with 1,639,782 assets identified, and 427,165 new assets created during the year.⁹ The cultural and creative industries are therefore a minority component of the NFT phenomenon (9%).



Source: nonfungible.com

The spread of NFTs in all sectors, parallel to the development of the metaverse.

The figures for NFT sales in 2021 reflect both the scale of the phenomenon and its undeniably speculative nature.

In *the 2021 NFT Market Report*¹⁰, which analyses the evolution of the NFT sector, the American company Chainanalysis described a volume of exchanges that has been steadily increasing for the past two years, while the volume of transactions carried out on the Ethereum blockchain in 2020 was \$106 million, it will have reached \$44 billion in 2021. The Nonfungible.com¹¹ report shows a 21,350% increase in the volume of dollars exchanged and an 1836% increase in the number of sales, which cannot be explained without a strong speculative dynamic in the NFT market.

⁸ Nathalie Heinrich, "NFTs, evolution or revolution in the art world?", colloquium organised by the Conseil des ventes volontaires and the Académie des Beaux-Arts on 1 March 2022.
⁹ Global statistics for artistic NFTs in 2021 - Source: NonFungible.com
¹⁰ The Chainanalysis 2021 NFT Market Report.
¹¹ "Yearly NFT Market Report", nonfungible.com.

Beyond the global phenomenon, an Ifop survey for Cointribune¹² revealed in January 2022 that 3.5% of French people already bought non-fungible tokens, compared to 7.5% for cryptocurrencies. This reflects a certain penetration of these new technologies on the French market.

This hype, although tempered by the most recent market Coin tribune developments that seem to indicate the end of a speculative period, is at the convergence of a need for diversification among holders of crypto-assets and crypto-currencies following the market correction phenomena observed in particular at the beginning of 2022¹³, as well as the numerous and still partly unexplored use cases related to NFTs.

Consequently, if the downward trends observed on the NFT market in the first half of 2022 should be confirmed during the course of the year, it is highly likely that these use cases, which concern a large part of the production sector and the cultural and creative industries, mobilising increasing investments, will persist and develop over time, well beyond the speculative episode of 2021.

On the surface, the uses of NFTs seem numerous. A non-exhaustive list should be made at the outset.

In the video game sector, NFT games are based on a blockchain with decentralised governance and regulated by smart contracts enabling players to collect game-specific assets in the form of NFTs. In trading card games, such as Chris Clay's "*Gods Unchained*", the *play-to-earn* approach enables players to earn rewards in the form of NFTs that can be exchanged for cryptocurrencies convertible into cash.

"*Collectibles*" are also experiencing a new craze. This is the model developed by the French unicorn Sorare¹⁴, who created virtual collectible cards featuring football players based on the Panini vignette model. Players "buy, sell, trade, and manage a virtual team with digital player cards".¹⁵ The value varies according to the scarcity and results of clubs, for which NFTs are a popular source of revenue for professional football leagues. Liga Espanola announced a partnership with the French company as of September 2021.

The sports industry is thus fully engaged in the world of blockchains, more specifically NFTs. Development of the *NBA TopShot* platform launched in October 2020 by Dapper Labs and the NBA also illustrates the contribution of NFT technology to the world of sport. This platform enables basketball fans to trade video highlights of the NBA's biggest games, known as "moments", at varying prices depending on their rarity.

For the major luxury and fashion brands, NFTs also offer considerable advantages. For example, they enable them to ensure the authenticity and traceability of mass-produced items to more effectively combat counterfeiting, including on the secondary market. The French company Ariance developed a solution enabling brands to issue a digital identity certificate to a luxury product, used by the luxury watch manufacturer Breitling for example.

¹² "Ifop survey for Cointribune. "Ifop survey for Cointribune. Cryptocurrencies and NFTs: a legitimacy that has yet to be achieved among the French."

¹³ "Should we take advantage of the slump to buy bitcoins?" Paul Loubière, 29 January 2022, Challenges.

¹⁴ "Les 5 chiffres fous de Sorare, la licorne française au développement éclair", Les Echos, 21 September 2021.

¹⁵ <https://sorare.com/>

At the same time, NFTs can be created to generate value and capture new market share. Adidas, for example, announced in December 2021 the launch of its first collection with NFTs, and US rival Nike acquired RTFKT, a digital fashion start-up specialising in virtual trainer sales. For its part, Gucci released its first pair of virtual trainers, the *Gucci Virtual 25*, sold at €13 that can only be displayed on the owner's feet on a screen, through augmented reality, in video games and on a virtual reality platform.

In the cultural sector, to which this report will expand on in its second part, NFTs represent an unprecedented opportunity for value creation.

For collectors, an NFT is a new way of acquiring, conserving in a secure manner, and reselling works, including digital ones.

For some artists, it is a new medium enabling them to reach new audiences by proposing innovative experiences, freed from the constraints of web2, its fragility, and possibly also from a perceived problematic dependence on centralised institutional actors. For others, it is a question of securing their rights within a digital world where their works are by definition infinitely reproducible and therefore vulnerable.

For cultural institutions, NFTs are often presented as tools for cultural democratisation and for enhancing the heritage of museums that were hit hard by the Covid-19 pandemic, which alienated part of their public. Several major European museums engaged in the production of NFTs created from works in their collections, such as the Uffizi in Florence and the Hermitage in St Petersburg, which raised \$440,000 for the auction of NFTs associated with digital replicas of works by Da Vinci, Monet, and other great masters in partnership with the company Binance. Finally, the British Museum sold NFTs on works by Hokusai in conjunction with the artist's physical exhibition in September 2021 as part of a partnership with French start-up LaCollection.io¹⁶.

Finally, although they are not the subject of this report, the metaverse should provide numerous use cases for NFTs, likely to make it possible to market goods in these virtual universes.

Difficult to define, a metaverse can be conceived as a virtual universe built on the model of immersive games created in the early 2000s, such as *Second Life* or *Minecraft*. They are enriched by the use of blockchain and the possible application of virtual or augmented reality technologies. To date, there is not one, but multiple metaverse including Decentraland, Sandbox, Cryptovoxels, OVR, and others, whose interoperability is a key issue for the development of NFT use cases. They can in turn contribute to this interoperability by providing an independent technological standard.

The economic development potential of the metaverse is now leading major brands, such as Carrefour and Casino, to invest in plots of land in the French metaverse Sandbox, for example, in the form of NFTs. The exchange of NFTs for goods related to metaverse could, in time, represent a significant share of this market.

If we were to find a common denominator to these different use cases, we could summarise by saying that the NFT, whether it is the digital double of a physical asset or an immaterial

¹⁶ <https://lacollection.io/>

object in its own right, is above all a social object. It encourages the participation and the constitution of communities of interest, thus arousing the utmost attention of the entire commercial sector in search of growth and new clients, as well as of the cultural sector, whose mission is based in part on the development and participation of communities.

As a result, the NFT revolution paradoxically created a speculative context in 2021 that may obscure the real opportunities it offers. This put a strain on the initial promise of blockchain, which seeks to counteract the phenomena of centralisation. In this respect, the current decline in the value of crypto-currencies is likely to reduce the phenomenon of speculation, in favour of more sustainable use cases.

From the origins of blockchain, marked in particular by the manifestos of the "cypherpunks"¹⁷, NFTs retained their philosophy: an attachment to a "form of democracy borrowed from anarchist and universalist philosophies, referred to as decentralism",¹⁸ which "has in common with anarchism the desire to do away with States, with the aim of giving as much power as possible to each citizen". This includes the power to preserve one's private life, along with a strong "community" dimension, mobilising networks of passionate individuals on ¹⁹often international *Discord* discussion groups around collections such as *crypto-punks* or mythical figures such as Satoshi Nakamoto, the pseudonym behind Bitcoin, or Vitalik Buterin, creator of the Ethereum blockchain.

These original principles are now confronted with a phenomenon of unprecedented capitalisation of NFTs and a concentration of value in this new market. This raises fears of a potential multiplication of speculative bubbles similar to the one observed in 2021, with possible side effects on the real economy due to the increasing ease of payment in euros, while blockchain technology is still subject to criticism regarding its carbon footprint and its weak regulations.

The influx of neophytes or art market professionals from other backgrounds, such as traditional collectors, institutions, and auction houses, also constitutes a dizzying challenge for the web3 community. Although this popularisation contributes to the success of NFTs and their development, it also requires a great deal of education about a technology that remains young and sometimes difficult to access.

Providing a secure legal framework for NFTs to free up the use of tokens

Mandated by the President of the High Council for Literary and Artistic Property (CSPLA) at the end of 2021²⁰, the mission's objective was to provide an inventory of the situation enabling to identify, analyse, and evaluate the phenomenon of NFTs in its various legal aspects, in particular through the prism of copyright, in the interest of the various players concerned and of its market.

Drawing on some sixty consultations²¹ with stakeholders in the field, including the Ministry of Culture, art market professionals, collective management organisations, companies,

¹⁷ See for example Timothy C. May's "Crypto-Anarchist Manifesto" (1988), or Eric Hughes' "Manifesto of a Cypherpunk" (1993).

¹⁸ *NFT Revolution - Birth of the crypto-art movement*, John Karp and Remy Peretz.

¹⁹ Instant messaging.

²⁰ Mission statement in annex 1.

²¹ See Annex 2.

professional federations, associations, and artists, this report describes the questions that remain concerning the technology of non-fungible tokens, its potential, and its legal framework, with the aim of providing answers, if possible.

(I) To begin with, the mission has endeavoured to propose a legal definition of NFTs that is as close as possible to their changing technological reality. This is intended to dispel any misunderstandings and misinterpretations as to what exactly this new and complex phenomenon, often criticised for its opacity, covers.

(II) The mission then sought to assess the opportunity that NFTs represent for the cultural sector. This is in line with the digital strategy of the Ministry of Culture, published in January 2022²², through a review of the use cases identified in cinema, photography, music, visual arts, publishing, among others.

(III) The mission then notes that the development of these use cases involves taking up a number of challenges, which it has endeavoured to describe in the third part of the report. This provides an overview of the many legal and socio-economic issues raised by NFTs, from their creation to their resale and marketing.

(IV) In order to secure the use cases of cultural NFTs in compliance with the applicable law and to clarify the existing regime, the mission finally proposes avenues to cover the respect of copyright and related rights while enabling an ambitious public policy for the deployment of this technology in the cultural sector.

²² <https://www.culture.gouv.fr/Media/Thematiques/Innovation-numerique/fichiers/La-strategie-numerique-du-ministere-de-la-Culture>

I. A recent technology, the exact definition of which calls into question the existing legal categories

A. What is an NFT?

Without going into too much detail about their functional and technical characteristics, we can summarise the interest of NFTs by simply stating that they are based on blockchain technology²³, enabling information to be time-stamped, stored, and transferred securely without recourse to a centralising body. This guarantees the holder a virtual, unique, and unforgeable title to a resource such as a file, digital content of any kind: sound, image, text, and so on, which this title symbolises.

While the tokens initially exchanged between users of the first generations of blockchain were divisible, fungible, and interchangeable like crypto-currencies, technological developments in blockchain protocols and their standards, particularly within the Ethereum blockchain (ERC-721 standard, then ERC 1155), have enabled smart contracts to be deployed on a blockchain. Smart contracts are computer programs that, when combined with a token on a blockchain, give it properties and functions that make it unique. For this reason, the virtual property titles that constitute NFTs are referred to as non-fungible. This is unlike cryptocurrencies or stablecoins, for example, which cannot be exchanged for another identical good or asset of equal value, something that has revolutionised the blockchain world.

In concrete terms, an NFT is therefore a cryptographic token issued on a blockchain associated with a "smart contract". For single NFTs, the ID (token identifier) is the same as the smart contract. For multiple NFTs belonging to a collection, a deploying smart contract sets the number of NFTs that can be created in a series, usually displaying a status in the code corresponding to the number of NFTs created in the series.

NFT's smart contracts consist of a few lines of code written on a blockchain that contain the address of the issuer, the name of the token, possibly the collection, the unique identifier of the token, and the functions of the smart contract. The smart contract also contains a link to the underlying file, i.e. an image, video, music, or file of any kind, to which it points and which is not, with some exceptions, hosted on a blockchain but stored either on IPFS²⁴, an open-source peer-to-peer file distribution protocol that does not depend on centralised servers, or on a centralised database, for example that of Opensea, or on storage blockchains.

The functions of a smart contract are automatically executed as soon as the previously encoded conditions are recorded on a blockchain. The execution of the smart contract in a blockchain can, for example, enable the activation of a condition ("if a natural disaster occurs") to be associated with the intervention of a result ("then €10,000 is transferred from the insurer's account to the insured party's account").

On the basis of this property, a smart contract could also link the occurrence of a transaction to the payment of a commission to the NFT issuer, thus constituting a form of automation of the "royalties" payable to an author. At present, however, such automation is practically non-existent.

²³ In simple terms, the blockchain is a sequence of data sets, where each set contains several transactions between different actors.

²⁴ InterPlanetary File System (IPFS).

It is true that the platforms themselves developed a technical standard for smart contracts, EIP-2981²⁵, enabling them to read the information on the *royalty* rate and automatically apply the *royalty* payment. However, this standard only enables a mechanism to signal the royalty rate and its recipient. The actual transfer of funds must be executed by the marketplace, regardless of which marketplace it is.

Moreover, it seems that this standard was not initially included. The smart contracts implemented until the creation of this standard did not provide for this automatic payout. Although it is possible to integrate these functionalities into the NFT smart contract, and then to impose the use of this smart contract for any transfer, including outside the platform, this could complicate the integration into platforms by implying specific support, not to mention their natural reluctance to favour interoperability. For example, currently the platforms operate entirely on the payment of "*royalties*" to authors, which ceases when NFTs are transferred to another marketplace.

Once coded, the various functions provided for by the smart contract are immutable, however, their parameters, such as the address of the file on IPFS, can be modified permanently, subject to the payment of new fees. Indeed, the more functions a smart contract contains, the more expensive its handling - transactions, modifications - is, generating high costs, called "gas fees".

In short, the process of creating an NFT, also known as "minter", involves assigning a real or virtual object to a token that is itself associated with a program (the *smart contract*) of a blockchain and affixing a digital signature to it. Thus, only those who hold the NFT in their *wallet* (crypto-currency wallet), thanks to the unique identification key associated with it, own what it refers to. This is so even though it is potentially freely accessible to everyone on the Internet - including its former owners who can download it, or keep the link to it. NFTs thus provide uniqueness and ownership in a digital world marked by the ability to endlessly multiply, copy, and reproduce data and files.

NFTs also enjoy several guarantees provided by the characteristics of the blockchain on which they are based:

- Transfer of ownership: when a user transfers an NFT that he owns, he gives up control of the smart contract to the recipient;
- Authentication of the NFT owner: only an NFT's owner can interact with their smart contract and transfer it;
- Inalterability: a transfer cannot be cancelled or modified after the fact. Returning an NFT to its original user would involve a second transfer, rather than the cancellation of the first;
- Transparency of transfers: all transactions are public and can be inspected by everyone or by a private group. Smart contract readers such as Etherscan²⁶ thus enable anyone to consult the chain of transactions linked to an NFT.

Nevertheless, in practice, the vast majority of NFTs, especially artistic ones, are traded on some of the platforms mentioned *above*. These are intended to be pure intermediaries between buyers and sellers, and their operation is very similar to that of traditional web platforms.

²⁵ <https://eips.ethereum.org/EIPS/eip-2981>.

²⁶ <https://etherscan.io>

However, these operators sometimes play an important role at several stages in the life of the NFT:

- When creating NFTs: platforms often suggest a pre-existing smart contract model, of which only certain limited parameters can be modified at the time the image or collection is deposited;
- For image and file storage: on some platforms, the NFT is only minted into a blockchain at the time of the first transaction ("*lazy minting*"). This enables the vendor to minimise gas fees, although it places a particular responsibility on the platform to store the files prior to their sale;
- In the payment of possible commissions or "*royalties*": at present, with only a few exceptions, the platforms play a key role in ensuring the implementation of this payment.

The complexity of NFTs, involving many actors and based on a technology that entered French law via the regulation of the crypto-currency and crypto-asset phenomenon, explains the difficulty of their legal qualification.

B. A tricky legal qualification

1. An unidentified legal object²⁷

In light of their particularly new nature, it is by no means easy to identify the legal framework in which NFTs currently operate.

The provisions of the PACTE Act of 24 May 2019 relating to tokens, conceived in the context of ICOs (*initial coin offerings*),²⁸ only imperfectly cover the reality of non-fungible tokens as they are currently traded.

Thus, Article L.54-10-1 of the Monetary and Financial Code on digital assets defines them as: "[...] 1. The tokens mentioned in Article L.552-2, excluding those that meet the characteristics of the financial instruments mentioned in Article L.211-1 and the certificates of deposit mentioned in Article L.223-1; 2. Any digital representation of value that is not issued or guaranteed by a central bank or public authority, that is not necessarily attached to a legal tender not having the legal status of a currency, yet which is accepted by individuals or legal entities as a medium of exchange that can be transferred, stored, and exchanged electronically.

Article L.552-2 of the Monetary and Financial Code provides a closer definition of the non-fungible token as it exists today: "For the purposes of this chapter, a token is any intangible asset representing in digital form one or more rights that can be issued, recorded, stored or transferred by means of a shared electronic recording device enabling the owner of the asset to be identified, directly or indirectly.

Although these articles do not explicitly refer to the non-fungible nature of the tokens, they do not exempt NFTs from the regulations on digital assets, if they can be assimilated to *utility tokens*, which represent rights within the meaning of L.552-2 of the Monetary and Financial Code, or from the financial regulations, if they correspond more rarely to "*security*

²⁷ See for example: "NFT nouvel OJNI?" by Fabien Honorat, Pechenard et associés, 30 November 2021.

²⁸ A method of raising funds by issuing digital assets that can be exchanged for crypto-currencies during the start-up phase of a project.

tokens” representing financial instruments registered on a blockchain, despite their non-fungible nature; nor from the tax regulations applicable to digital assets (cf. *below*).

As for the new Article L.320-1 of the Commercial Code, resulting from the Act of 28 February 2022 modernising the art market, which allows for the sale by auction of "certain intangible movable property",²⁹ it can be read in the light of parliamentary work as identifying NFTs as intangible property,³⁰ without this being explicitly stated as such at the present time.

In order to better define the scope of this unidentified legal object, sometimes referred to as a "legal UFO"³¹, another approach is to define what the NFT cannot be.

2. What an NFT cannot be, with some exceptions

a. A work of art?

With few exceptions, NFTs can hardly be considered in themselves as creative works within the meaning of the Intellectual Property Code. The Intellectual Property Code defines creative works as creations of form - whether or not they are listed in Article L.112-2. The latter article sets out a non-exhaustive list of creations eligible for copyright protection, including "works of drawing, painting (...) sculpture (...) photographic works (...) software, including preparatory design material". These meet the requirement of originality established by case law: a work of the mind expresses the personality of its author or is marked by an intellectual intention on their part that is reflected in personal choices, and it is tangible, for example fixed on a physical or digital medium.

Although the original character of a creation is a matter for the discretion of the judges of the court of first instance, making it difficult to classify a particular object as an intellectual work protected by copyright, **it appears that non-fungible tokens, unlike the digital files to which they point, which could, depending on their nature, be classified as works of art, do not have any original character expressing the personality of their author since their creation is, except in special cases, the result of a highly restricted and automated computer coding process³².**

²⁹ "Sales by public auction of movable property are subject to the provisions of this section, with the exception of the provisions specific to the sale of certain intangible movable property."

³⁰ The rapporteur of the text in the Senate, Catherine Belrithi, confirmed in this respect: "This innovation comes at the right time to accompany the meteoric development of the market for digital works of art, in particular NFTs (*Non Fungible Tokens*), these "tokens" representing individualised digital files. [...] More broadly, thanks to this major contribution by the Senate, French auction houses will see new markets open up to them, destined to develop with the rise of the intangible economy: auctioning of designs, models, patents, trademarks, as well as goodwill or private customers, and so on."

³¹ "NFT legislation: the legal challenges of a legal framework for NFTs", 4 February 2022, <https://www.village-justice.com>.

³² In this respect, while software and, more broadly, lines of code may be protected by copyright, subject to their originality, case law considers that software is original if the choices made by its designer bear witness to an intellectual contribution of its own and to a personalised effort that goes beyond the simple implementation of an automatic and restrictive logic, the materialisation of this effort resulting in an individualised design. (Cass. 1st Civ. 17/10/2012 no. 11-21541, Cass. Ass. Plen. 7-3-1986).

The NFT does not in principle contain the work itself, except in certain very specific cases of "*onchain*" works encrypted in a blockchain, or hypothetical cases of developers of smart contracts who might code in a particularly original way.

On this point, there is still a grey area that is difficult to resolve in the current state of technological development, relating to the existence of works of art such as the "plantoids" of Primavera de Philippi³³. These are new "autonomous life forms" based on a blockchain, capable of ensuring their own reproduction via smart contracts, having an original character.

This problem actually raises more questions if there is a separation between the artistic creation process and the creation of an NFT associated with the work. Either they come from two different actors, for example, an artist who contracts with a platform to transform their work into an NFT, a museum that decides to create NFTs on a collection, and so forth, or if the work was not initially conceived as an NFT, which excludes crypto-art that is by definition "native".

b. The medium for a work of art?

The question then arises as to the suitability of the NFT as a medium for a work of art.

A priori, the relationship between the NFT and the work of art only consists of a link to the work, possibly accompanied by a web address (which can be modified) to its reproduction and possibly its representation.³⁴ It therefore hardly seems possible to qualify it as a medium, unlike memory cards or online storage spaces that contain and host the digital file comprising the work.

Alternatively, one could consider the NFT as a medium for a work of art. The NFT would be both a title identifying the work and its medium. It would in fact constitute a tool for the digital duplication of a material work that would now have two supports, one material and one virtual³⁵, provided that the work is in the NFT. This applies to "native" works incorporated in NFTs, because of the difficulty of dissociating the NFT from the work. In the specific instance where the NFT itself includes the work, which does not exist independently of the token, the NFT could possibly be considered the medium of the work.

c. A certificate of authenticity ?

A certificate of authenticity is a document that aims to attest to the authorship and integrity of the work, thereby guaranteeing its substantial value. However, although commonly issued by the author or by an expert engaging their responsibility, it takes the form of a paper or digital document that is easily falsifiable. The NFT could offer the promise of a more satisfactory authentication of works.

³³ Primavera de Filippi. PLANTOID: A LIFE FORM BASED ON A BLOCKCHAIN. Geneviève Vidal; Olga Kisseleva. Double Vie d'Artistes, 2020.

³⁴ "NFT legislation: the judicial stakes of a legal framework for NFTs" (4 February 2022, Village Justice); "The NFT: missing link or weak link in digital art?", Clara Zerbib and William O'Rorke, INDUSTRIAL PROPERTY - No. 5 - MAY 2021.

³⁵ "NFT and the ART market: law, practices, and the future" (Journal spécial des sociétés, no. 6, 9 February 2022, pp.12 f.).

However, it quickly becomes evident that NFTs are technology-neutral, therefore, at present, likely to be used for forgeries. At this point, the inclusion of the notion of authenticity or authentication in the terminology may therefore be perceived as misleading. This will be the case in particular in the field of literary and artistic creation that is highly sensitive to the risk of forgery and counterfeiting. The creation of the NFT does not enshrine the authenticity of what it contains, but simply enables secure acknowledgement of the rights that the person issuing the token claims to associate with it in a blockchain. They themselves have variable objects and geometry, depending on the terms of use of the platforms, and the smart contract that defines them, if it has special terms & conditions. The same appears to be true with respect to identifying the object to which these rights relate, i.e. authenticating it, unless special safeguards are in place.

Indeed, if the blockchain system has the reputation of being tamper-proof, it is because it makes it impossible to falsify the virtual register that it constitutes, or to modify this register in any way that is not transparent and visible to all users. However, this ownership of a blockchain does not affect the content of the information stored on it, namely the NFT. The NFT may be issued in infringement of someone else's rights, or it may be based on a forgery in art. In this regard, the term "*garbage in, garbage out*"³⁶ is sometimes used to describe the fact that, in the absence of a third-party verifier, a blockchain records all information, including false or infringing information, in the form of an unfalsifiable record of unlimited duration.

3. What could an NFT be?

a. A contract?

In view of the name of the smart contract, we can also wonder about the contractual value of the NFT, and the fact that the contractual clauses of the smart contract that defines it in a blockchain are similar to a contract under common law. According to Article 1101 of the Civil Code, a contract is an "agreement of intent between two or more persons aimed at creating, modifying, transmitting, or extinguishing obligations".

Today, NFTs are likely to take place in several contractual configurations.

Under the first, the NFT is issued without being covered by the general terms & conditions of a platform, or by any special terms & conditions attached to it. In this case, it is difficult to consider that the NFT, through its **smart contract** alone, could have a contractual value likely to be acknowledged by a judge.

Admittedly, under certain circumstances, the performance clauses of the smart contract may resemble the contractual intent of two parties to enter into a contract that is difficult to modify over time, which is then binding on all those who agree to buy the NFT and resell it (buyer n. who resells his NFT to buyer n+1). It might thus be conceivable to approximate the smart contract to a pre-formulated standard contract, for example.

However, with very few exceptions, the smart contract alone does not contain the binding elements as in a classical contract, but only the code enabling functions to be performed

³⁶ In computer science, this is a concept used to describe the fact that faulty or nonsensical input data produces nonsensical or "rubbish" output.

automatically. As the parliamentary information report on a blockchain put it,³⁷ "the term 'contract' is somewhat overused in that the computer program has few characteristics in common with the contract's legal purpose within the meaning of the civil code. At best, the self-executing programme is backed up by an electronic contract in the form of general terms & conditions (GT&C) that users would be asked to accept.

In a few rare configurations, contracting exclusively by smart contract might nevertheless be possible, although the obligations that could be formalised by this process would be relatively limited. These will mainly involve impersonal contracts, such as the transfer of funds associated with the fulfilment of a condition. The Fizzi insurance³⁸, introduced in 2017 by the insurance company AXA, for example, enabled travellers to be automatically compensated if their plane was more than two hours late.

In the second scenario, the NFT is covered by general terms & conditions of use or sale of the NFT exchange platforms, which the users ultimately accept by making a sale or purchase. There is thus no doubt about the contractual environment of the NFT. In this configuration, the smart contract is an accessory to the main contract, constituting a mode of execution of the general terms & conditions of the NFT exchange platforms.

In the latter configuration, the NFT is associated with the special terms & conditions that may be added to those of the platform on which it is being traded. In this case, it is possible to assume that the smart contract and the special terms & conditions to which it may refer, for example in the form of a URL link to a written document, have contractual value, subject to the validity of the parties' agreement.

Regardless of the NFT's configuration, as in any contract, it is necessary to ensure the parties' agreement is valid and that they understand all the terms of the contract and its execution procedures.

Two points of attention should be noted in this respect.

On the one hand, **the possibility of identifying the parties, thus ensuring the validity of the agreement of their intentions by virtue of the pseudonymity of a blockchain³⁹ remains uncertain.**

On the other hand, **the ability of the parties to read the content of the contract** could be an issue, if it were to be drafted in code form in a computer language, despite the use of certain whole words in everyday language, the understanding of which presupposes special technical skills. The lack of information regarding the contract's content, itself due to a lack of technical knowledge, could possibly give rise to a lack of consent that could render the contract

³⁷ [Information report submitted by the joint information mission on blockchains, presented by Mrs Laure de la Raudière and Mr Jean-Michel Mis, MPs.](#)

³⁸ <https://www.axa.com/fr/magazine/axa-se-lance-sur-la-blockchain-avec-fizzy>

³⁹ The operation of a blockchain is based on identifying the actors (of a transaction, for example) by their pseudonyms, which can also be computer identifiers.

null and void. Article 1112-1 of the Civil Code states that: "The party who possesses information whose importance is decisive for the consent of the other party must inform the latter if the latter is legitimately unaware of this information or trusts their contractual partner. [...] Failure to comply with this duty to inform may lead to the contract being annulled under the conditions laid down in Articles 1130 et seq." The failure of an NFT's purchaser to understand the content of the contract to which they are deemed to have subscribed, because they are unable to decipher the content, could thus constitute a cause for the contract's nullity.

b. A rights management tool?

The assimilation of the NFT to a new form of Digital Rights Management (DRM) has been suggested. This is a rights management system whose primary purpose is to enable identifying a work and its rightful owners, and to monitor the uses made of it in a digital environment. DRMs are based on implementing technical protection measures and information on works.

Under the terms of Article L.331-5 of the Intellectual Property Code, **technical protection measures** are defined as follows: "Effective technical measures intended to prevent or limit unauthorised usage by the holders of a copyright or a right related to copyright of a work, other than software, of a performance, a recording, a phonogram, a videogram, a programme, or a press release, are protected under the conditions provided for in this section.

A technical measure within the meaning of the first subparagraph is defined as any technology, device, and component that, in the normal course of its operation, performs the function referred to in that subparagraph. Such technological measures shall be deemed effective if a usage mentioned in the same paragraph is controlled by the rightholders by applying an access code, a protection process such as encryption, scrambling, or any other transformation of the subject matter of the protection or a copy control mechanism that achieves this protection objective.

A protocol, format, encryption, scrambling, or transformation method does not as such qualify as a technical measure under this article. [...]"

Technical protection measures are therefore digital safeguards enabling the prevention of certain uses unauthorised by the right holders. Their legal status protects them against circumvention.

In some respects, NFTs can play a role equivalent to a technical protection measure, by seeking to protect the rights to the file associated with them and to some extent to secure its use.

However, as things stand, the creation of an NFT on a file does not prevent unauthorised usage by the owners of a copyright, a right related to the copyright of the file, or the native work associated with the NFT. Indeed, in the absence of any file-specific protection, the underlying digital file remains accessible everywhere to all owners of the link to it. It can even be found on the Internet, copied, and reused.

On the other hand, nothing of course excludes the fact that the files themselves may have been subject to a technical protection measure outside a blockchain by their authors or the holders of the rights to the work, provided that it is ensured that the decentralised storage of the file and its metadata does not lead to its disappearance by excessive compression.

As for **technical information measures**, they are laid down in Article L.331-11 of the Intellectual Property Code as follows: "Information in electronic form concerning the system of

rights relating to a work, other than software, a performance, a recording, a phonogram, a videogram, a programme, or a press release, shall be protected under the conditions stipulated in this section, if one of the items of information, numbers, or codes is attached to the reproduction or appears in relation to the communication to the public of the work, performance, recording, phonogram, videogram, programme, or press release that it relates to.

Electronic information refers to any information provided by a rightholder enabling the identification of a work, a performance, a phonogram, a videogram, a programme, a press publication, or a rightholder, any information on the terms & conditions of a work, a performance, a phonogram, a videogram, a programme, or a press release, as well as any number or code representing all or part of this information."

In the light of this definition, and provided that the metadata referred to in the smart contract is not excessively compressed, the NFT could be considered to contain technical information measures corresponding to the digital file to which it is directed.

c. A title to rights

Against this backdrop, it appears that an NFT is akin to intangible personal property, corresponding to a title to the token inscribed in a blockchain that may be associated with other rights in the digital file to which it points.

Depending on the terms of the smart contract and, where applicable, the terms of use of the platforms, these associated rights may have:

- Multiple purposes
- Different types: ownership, use, access, exploitation, and others.
- And of course, a variable scope

This definition also seems to correspond to the NFT's ambition, namely to make it the future of property, especially within the metaverse. In any case, they question our relationship to property and the possession of objects. This is one of the meanings that can be given to the initiative of Injective Protocol, a company that transformed "Morons" by Street Artist Banksy into an NFT, sold for \$380,000, after burning this authentic engraving valued at nearly €80,000 live on Twitter.

This represents a complex technological object, which is the subject of ongoing innovations that are still in progress at the time this report is being completed. The NFT is an unidentified legal object whose legal classification is all the more delicate because it entails applying a certain number of regimes, particularly in tax and financial matters. At this juncture, the mission proposes adopting a flexible legal qualification of the NFT as a title to rights over a token but also over a file, the purpose, nature, and scope of which vary according to the will of its issuer expressed by the technical and possibly legal choices associated with the smart contract.

II. Opportunities abound for the cultural sector

A. Multiple benefits

As a preliminary consideration, it should be emphasised that NFTs could contribute to realising the ambitions of the Ministry of Culture's digital strategy, made public last January. These include reconnecting with changing uses and audiences with new expectations, renewing the cultural offer by promoting creation in a digital environment, and enabling the modernisation of the sector's economic models, developing innovation in culture, along with protecting artistic diversity and preserving the remuneration of creators, while supporting a booming French sector.

a. Renewing the cultural landscape by promoting creation in the digital environment

In the digital space, content is accessible to all: images, sounds, videos, and writings circulate that can be copied and reproduced very easily without necessarily having the right to exploit them. Digital works can be reproduced ad infinitum making them difficult to value, while the artistic character of a creation is often implicitly subordinated to a form of rarity, if not uniqueness.

In this respect, non-fungible tokens constitute a unique opportunity for creating value and scarcity by enabling the individualisation of reproducible content, likely to foster a more favourable context for creation in the digital environment.

Under these conditions, remunerating digital artists for their productions, by enabling their professionalisation, should have a beneficial effect on artistic creation.

b. Reconnecting with rapidly changing uses and with audiences having new expectations

NFTs can give rise to interactive uses, creating communities of use around certain cultural products, or even direct exchanges between artists and their fans. The latter could, through mechanisms of participation or collaborative and decentralised financing, support and contribute to their projects.

NFTs may also enable disseminating cultural products to new audiences and new communities of collectors, art lovers, and patrons of a new kind. In this way, the production of NFTs could enable an artist or cultural institution to reach new audiences, diversifying the ways in which they connect with their community in order to bring new people to art.

Lastly, NFTs could be the vector of a new relationship with culture, likely to attract new audiences sensitive to more entertaining uses. For example, this could take the form of acquiring *collectibles* or products derived from works of art. This is the model proposed by Everrose, a company that sells a limited number of reproductions of museum works in the form of collectible cards.

While the sociology of these new audiences cannot, at this stage, be rigorously outlined, initial analyses of the crypto-art market tend to identify a typical profile of young individuals. They are often holders of crypto-currencies or crypto-assets, keen to diversify their crypto-currency portfolios or to support emerging web artists³, which could be extended to regular collectors

and enthusiasts in the event of implementing a determined public policy in favour of NFTs, likely to provide credibility and institutionalise them.

Among these new audiences, various types of motivation could be found. These include a quest for rarity, sometimes associated with speculation, a form of classic conspicuous consumption⁴⁰, a form of fetishism consisting in attributing to NFTs the qualities that are ascribed to their underlying assets, for example on the part of traditional collectors, a recreational interest, or a club effect and a quest for social belonging to a community of insiders.

Nevertheless, it should be noted from the outset that the development of NFTs in the cultural sector is only apparently contradictory to the policy of opening up public data now being conducted by the Ministry and by all public cultural operators. The creation of NFTs associated with public cultural goods or their reproductions should not create exclusive access to these goods or their reproductions for their holders, which would deprive them of any other form of use.

c. Modernising the sector's economic models

At a time when the Covid-19 pandemic financially challenged artists and cultural institutions, the production and release of NFTs presents a clear business opportunity. This is likely to be the case, although it is difficult, due to the speculative turmoil in the market and its recent reversal, to pinpoint the exact scale of this new source of funding and its sustainability.

d. Protecting artistic diversity and preserving creators' compensation

NFTs should enable facilitating *royalty* payments to authors, where the payment of resale rights is subject to strict legal conditions. They are also likely to enable improved protection of the use of files and the works associated with them via smart contracts, where copyright infringements are difficult to sanction.

Another application of smart contracts in the cultural industries, perhaps in the shorter term, could be the facilitation of *crowd funding* along the lines of DAOs⁴¹. An artist could thus solicit financing and propose the automatic payment of "dividends", rights, privileges, or copies of the work thanks to a smart contract, in compliance with financial regulations in the event of the implementation of a form of securitisation.

e. Supporting a vibrant French ecosystem

Finally, supporting the growth of NFTs is, a priori, part of a strategy to support a dynamic ecosystem.

The web3 and NFT sector has seen the development of a large number of innovative companies that are now growing rapidly: Sorare, a unicorn valued at \$4.3 billion, The Sandbox, Ledger, Arianee, and others.

⁴⁰ Thorstein Veblen, *Theory of the Leisure Class*, 1899.

⁴¹ The Decentralised Autonomous Organisation (DAO) is one that operates using a computer programme that provides rules of governance to a community, written on a blockchain.

Combining the richness of the French cultural heritage, the dynamism of the Parisian crypto-art scene, and an innovative and promising ecosystem should encourage the development of NFT use cases in the cultural sector.

B. Numerous actual or potential use cases

Although not all the use cases described in this section have yet been developed, they are particularly promising at the present time. They deserve the full attention of cultural players, beyond the speculative "noise" likely to slow down any initiative.

a. In the field of digital and crypto-art

For artists whose creative work is difficult to monetise, including digital artists, who have long been confronted with the fact that their works do not have a physical medium that can attest to their rarity, NFTs enable them to receive unprecedented remuneration. This is notably due to the possibility of paying out commissions, which holds out the promise of professionalisation and hence the financing of new creations.

NFTs also promote meetings between these artists and their audiences, and the creation of communities around innovative artistic projects.

b. Traditional visual arts

A large number of use cases can be identified for the traditional visual arts, thanks to the characteristics of NFTs.

NFTs can of course be used to market digital copies or "digital twins" of works, with possible developments in the metaverse, on the model of the Museum of Crypto-Art⁴² (*MoCA*) in the field of crypto-art, on the Cryptovoxel metaverse.

In addition, NFTs can also enable the valuation of temporary works. This is particularly true of the works of Pascal Boyart. His frescoes inspired by "Liberty guiding the people", the Sistine Chapel, or Delacroix, painted on urban walls or in disused industrial premises, were then issued in the form of tokens in dozens or even hundreds of small pieces, like so many pieces of a puzzle, and sold in this form as NFTs, even though the "real" work is destined to disappear.

Finally, on the art market, we can mention the possibility of selling "*Biometric Art Passports*" (BOAP) in the form of NFTs. These enable physical or material works to be given a "passport" or "wallet" containing both the work's fingerprint, essential information such as its provenance, certificate of authenticity, condition reports, characteristics, history, and so forth, as well as its digital reproduction. This passport, registered on a blockchain in the form of an NFT, thus protects the work with which it is associated. In France, this technology was put forward for the first time at a public auction organised by Rouillac in June 2021, featuring a painting by Claude Monet in 1882 entitled "La Ville de Dieppe".⁴³

c. Heritage

⁴² "Le crypto art investit l'espace réel, à Paris", *Le Monde*, 15 December 2021.

⁴³ "Claude Monet, "Dieppe" and its Biometric Art Passport on sale at Rouillac", May 2021.

In addition to generating digital twins of museum-held artworks, heritage items, and collectible NFTs associated with reproductions of these works, most often promoted as potential uses, NFTs can also be employed as a new type of patronage. For example, they could finance the restoration of a work or a collection, public or private, by producing tokens that could be used as property titles for a fragment or the entire digital reproduction of the work. This was done, for example, by the Czech heir William Lobkowitz. He developed several different forms of NFTs to finance the conservation and restoration of the collections of which he is the depositary, in particular in connection with the French collective Obvious.⁴⁴

Central to the public service mission of public cultural institutions⁴⁵, the acquisition of NFTs can also enable certain institutions to acquire specific native NFT works and crypto-art collections to enrich their holdings of contemporary works. A number of national or regional contemporary art museums could thus be led, as part of their public service mission, to acquire NFTs related to crypto-art works, which raises the question of the legal and financial terms of such an acquisition.

d. Music

In the music sector, an NFT corresponds specifically to a file incorporating a musical work that can be downloaded, accompanied by a title of rights that may include access to annexed services that may generate value. They thus enable the exchange of limited editions of a musical piece, an alternative version of a song, like a serial number on a recording, often coupled with benefits.

In March 2021, *Kings of Leon* became the first band to release an album entirely as an NFT for \$2 million. In the autumn, French musician Booba sold 25,000 copies of five flashcards giving access to his "TN" video, as well as the chance to be entered into a drawing to attend his concert at the Stade de France. Musical NFTs are therefore not confined to any particular genre, although electronic music still leads in popularity with 80% of musical NFT sales. This is largely due to the historical proximity of the artists to the technology. For example, producer and DJ Agoria, who is particularly adept at NFT technology, has proposed a collaboration with researcher and microbiologist Nicolas Desprat to coincide with the release of his new album .dev, which combines electronic music with microscopic images of bacteria⁴⁶.

While the market for NFTs, which concern music in the broadest sense of the term by artists and labels, is estimated to be worth approximately \$145M today, the creation of tokens associated with a track or sound is interesting for the sector in several ways. This justifies the interest of the French Association of Authors, Composers, and Music Publishers (SACEM), which has announced the creation of a Strategic Innovation Council on the subject of NFTs⁴⁷.

The creation of NFTs by the owner of the rights to a track, by a record company, or by independent artists, depending on the configuration, enables the artist to create a new way of engaging their fan community. The sale of NFTs creates a direct link between the artist and the

⁴⁴ "Meet the Czech Aristocrat Family Turning to NFTs to Protect a 700-Year-Old Art Collection", Decrypt, 30 September 2021.

⁴⁵ Article L.441-2 of the French Heritage Code includes "conserving, restoring, studying, and enriching their collections" among the permanent missions of museums.

⁴⁶ <https://agoria.dev/art/>

⁴⁷ <https://societe.sacem.fr/innovation/decryptage/un-conseil-strategique-innovation-dedie-aux-JNF-musicaux>

fans, who can enjoy privileged experiences such as lifetime concert tickets, previews of a new album, meetings with the artist, and participation in discussion forums.

This is the model developed by a platform the likes of Pianity⁴⁸, for example, which offers the sale of NFTs associated with experiences on several levels, depending on their rarity. The artist can decide to combine the sale of a single copy with a day in the studio with the artist, with progressive advantages such as for 10 copies, the buyer can have a concert seat in the VIP area, for 100 an advance access to tickets, for 1000 a private discussion group, among others. In addition, they are available for free streaming on the platform and possibly, depending on the artist's wishes, elsewhere. These NFTs can be resold on a secondary market.

However, current models exclude any transfer of rights associated with the sale of the NFT. Creation is often conditional on a process of verification of the authenticity of the audio file associated with the NFT and the ownership of the author's rights. There is a particular issue for freelance artists whose rights have by definition not been assigned, with some exceptions.

Beyond the bond they enable to create with a community of listeners and fans, music NFTs could also enable authors to better control the use of their works. This would apply in particular over time, although the files exchanged could be freely downloaded by successive purchasers, via possible smart contract provisions.

e. Film and audiovisual

As early as 2019, the Boutonnat report⁴⁹ noted the need to diversify the sources of funding for the cinema, in particular the harnessing of private funding. NFTs enable to partially address this concern, for the enhancement of existing catalogues as well as for the possible financing of new works. The president of the CNC (National Centre for Film and Moving Image) declared, outside the Cannes festival, that "NFTs could be a solution to the erosion of financing, but also a means to develop marketing tools"⁵⁰.

In the early stages, NFTs could enable the scaling up of a crowdfunding campaign, especially if the director or the film has a large fan community.

Two configurations are then possible: launching a collection of NFTs on an upcoming film via tokens giving access to an experience such as access to the preview, the possibility of having one's name on the credits of the film, and so forth, with the main limitation of the difficulty of raising large amounts, or launching a collection providing access to the rights of the film, by giving a community of enthusiasts a stake in the film. Nonetheless, if the acquisition of NFTs gives access to a film's revenue, for example via the smart contract in the manner of a co-production share, the operation is akin to the issuance of *security tokens*, similar to classic financial instruments, and the financial regulations applicable to these crypto-assets will have to be respected, thus requiring a certain amount of vigilance.

⁴⁸ <https://pianity.com/>

⁴⁹ "Report on the private financing of film and audiovisual production and distribution", 2019.

⁵⁰ "Cannes Film Festival: the NFT as a new financing and marketing tool for cinema", News 305651, Paris, 24 May 2022.

The development of such financing methods could be complementary to that of companies for the financing of the film and audiovisual industry (SOFICA)⁵¹. Indeed, NFTs and SOFICAs do not follow the same investment approach. They are not likely to focus on the same projects.

NFTs can also enable funding the development phase of new projects, prior to production. This is the project of the DCF Company (for Diversité du Cinéma Français), created among others by Sarah Lelouch, producer and director of documentaries, fictions, and broadcasts, which relies on the issuance of a cryptocurrency launched on 28 April 2022, the Klapcoin, to finance the development of new projects. The benefits received by the buyer would take the form of cinema previews, meetings with actors, or backstage time with actors. These would be accessible after a certain amount has been spent, along with the right to vote and participate in the governance of the project, insofar as the community could be asked to give its opinion on the choices made by the film production.

Subsequently, NFTs could enable a complementary experience for fans and enhance the value of an already produced film to an existing community. This could be done through the sale of merchandise that could enable stakeholders to pursue new projects. This is what the production company Cascade8, a subsidiary of Logical Pictures, did. After using a blockchain to facilitate the transfer of rights during the production of its film Terra Willy in 2018, it financed its film Bloodmachine in 2020 through participatory financing in exchange for bonuses and gifts such as caps, T-Shirts, 3D models. They are continuing the experiment with the sale of NFTs around the film of image collections, GIFs, and a link to an existing video game. One could also imagine the creation of "collectibles" for film enthusiasts, in order to enhance the value of the major French film catalogues.

At any rate, NFTs are also a way of distributing scenes from films, or even entire films. Examples include the film "Zero Contact", starring Anthony Hopkins, offered exclusively to viewers in the form of non-fungible tokens on Vuele, a consumer viewing and distribution platform for NFT feature films launched by the American company CurrencyWorks, or the distribution of the film Hamlet Within, the latest documentary by director Ken McMullen, offered in an edition of 5 NFTs at €20,000 each⁵².

In the audiovisual sector in general, NFTs could enable enhancing the value of audiovisual archives, public or private, in the form of short extracts sold in NFTs, for example.

Given the interest of American companies to access the French catalogue, the deployment of French technologies and production companies using them is a priority.

f. Books

Although the publishing sector is familiar with the phenomena associated with original comic strips or original manuscripts, annotated and corrected by their authors, speculative phenomena on a large scale associated with these objects remain limited.

⁵¹ Created by the Act of 11 July 1985, limited liability companies enable private investors to invest in audiovisual production, with a favourable tax regime.

⁵² "Buy or not to buy "Hamlet Within" in NFT", Le Monde, 23 May 2022.

So far, sales of NFTs drawn from published books have been quite rare. In March 2021, Argentine cartoonist José Delbo sold the seven pieces of the "Heroines" collection, animated images of the Wonder Woman character, for \$1.8 million, which was donated to a charity. In October 2021, Frank Miller sold an unpublished Sin City panel called I Love You, Nancy Callahan⁵³. In the same spirit, the Italian publishing house Neri Pozza announced the creation of three NFTs of the book *Caro Pier Paolo* by Dacia Maraini, created by the artist Nicola Verlato, on the occasion of the 100-year anniversary of Pier Paolo Pasolini's birth. Author Alessandro Barrico auctioned an NFT linked to the recording of his vocal interpretation of his novel *Novecento*, published in 1984.

In France, authors' initiatives are rarer still. We could mention the initiative of Thierry Crouzet, who put his NFT blog up for sale in August 2021, in the form of a 5 x 5 metre PDF file combining text and image, offered for purchase during six days, with no minimum price, on the Mintable platform.

More recently, on 15 January 2022, the first auction of a book offered for sale as an NFT, *Bitcoin, and Cryptocurrencies*, by Daniel Ichbiah and Jean-Martial Lefranc, published by Éditions First in 2018, in the *For Dummies* collection, took place. The lot offered for sale consisted of the Word files of the first and second editions and a paper printout of the files, signed by the authors. After 38 bids from 16 different bidders, the auction of the first NFT manuscript on Interenchantés Online reached €1,010 at the hammer, i.e. nearly €1,400 including costs.

Although currently underdeveloped, NFTs could give rise to several use cases of interest to publishers and authors alike.

The marketing of NFT on a work prior to its publication could possibly constitute a method of financing the publication of a book, by establishing a form of participatory financing. Such a use may currently be the subject of some concern on the part of the publishing sector, due to the difficulty of collecting large amounts, and a potential image risk, since booksellers and distributors are excluded from the formula.

NFTs could also be used to authenticate the sale of master copies. Each copy sold would thus be authenticated and assigned to the owner of the NFT link issued to the purchaser. NFTs would then provide a complementary protection measure to technical protection measures by ensuring the traceability of the file and thus enabling better identification of possible security flaws. However, this marketing method would not be without its drawbacks. Apart from the fact that it would sideline several players in the publishing chain, it would be very expensive to deploy on a large scale.

Finally, as in other sectors, use cases could be identified for developing user communities and strengthening the bond between a book and its readers, as part of a promotional approach. For example, Fayard Editions offered an NFT of an original cover to the first 50 readers of *Ego*, the new thriller by Maxime Girardeau⁵⁴.

⁵³ "NFT, a new market for books?" Livre Hebdo, 7 January 2022.

⁵⁴ "Ego by Maxime Girardeau: collector's NFTs offered to the first 50 readers", published on hachette.fr on 9 February 2022.

g. Photography

Although in the field of photography, the NFT does not escape the usual rules for rating works and artists, it constitutes a complementary tool to the print for photographers whose work was natively digital.

In April 2021, representatives of Karl Lagerfeld, the famous fashion photographer and former creative director of Chanel and Fendi, uploaded hundreds of thousands of image catalogues onto a blockchain. In May 2021 photographer Aimos Vasquez sold his iconic black and white image of rapper XXXTentacion, *Love Is War*, on the BlockParty marketplace as an NFT for \$125,000.

More recently, in January 2022, the Associated Press opened its own NFT marketplace in partnership with blockchain technology provider Xooa. This marketplace is intended to accommodate its photographic archives and to sell NFTs of the work of photojournalists who work and have worked with it.

The enthusiasm of photographers for NFTs stems from the opportunity they represent for copyright management. Copyright is particularly difficult for photographers to enforce in the absence of any form of standardised contribution. However, the NFT, if combined with licensing or rights assignment agreements, offers the opportunity to track and account for copyright and usage. This enables better control and management.

Some French companies are thus proposing innovative formulas. One example is Pictia⁵⁵, which has launched an NFT platform enabling photographers to sell NFTs on their photographs, with the option of licensing commercial use rights on the Internet. Pictia's marketplace, which is due to be launched at the time of this report, is intended to enable collectors and advertisers to buy images from image producers including photographers and photo agencies, in a way that respects copyright.

h. Events

Finally, the cultural sector could take full advantage of the innovations enabled by "*proof of attendance protocols*" that enable people to prove, thanks to a smart contract, that they are at a specific place and time.

Distributed to participants of an event, these NFTs could facilitate the keeping of attendance records at various events, with guarantees of "forgery-proof" and control of the personal data recorded.

In the ticketing industry, NFTs could also be used to combat fraud, particularly on the secondary market, and difficulties in identifying attendees. Tickets sold as NFTs would enable access identification information to be recorded, with the possibility of granting additional rights or exclusive privileges to their holders. They could also be perceived as collectable NFTs.

Thus, NFTs hold many opportunities for the cultural sector as a whole. To take full advantage of this, however, a number of thorny legal and technical issues need to be clarified, particularly

⁵⁵ <https://www.pictia.io/fr/>

in the field of intellectual property, against a speculative and uncertain financial backdrop that may blur the prospects for development in culture.

III. A technology that raises challenging legal issues, in a speculative environment where opportunities may be obscured

In addition to their uncertain legal status under existing legislation, which is the source of some of the difficulties that will be explained in this section, the growth of the NFT market raises a number of structural legal issues, particularly in terms of intellectual property. Their development could therefore be hindered by their uncertain environmental footprint, their insufficient transparency towards the consumer, and above all the instability of their market.

A. A technology fraught with structural risks of copyright infringement and forgery, dependent on platforms with uncertain liability

1. Identifying right holders is an essential prerequisite for the production, issuance, and exchange of NFTs

Producing and issuing tokens on so-called "native" works of crypto-art does not pose any particular legal problems. Indeed, under the terms of Article L.111-1 of the Intellectual Property Code⁵⁶, the individual author who created the work is the owner of the intellectual property rights over it. If the living artist is the issuer of the NFT, and if they themselves define the contractual clauses of the smart contract and control them, which is the purest case of use of NFTs, then all the conditions are met for their copyright to be respected.

The author will choose the file and the format of the work for which they wish to create an NFT. If necessary, they will choose the exchange platform whose general terms & conditions of use they feel best correspond to their expectations. They will then be able to include, either directly in the smart contract or in more detailed contracts that may be annexed to it, the conditions for any transfers or licences of rights.

Concerning the production of NFTs by authors based on their works. It can be considered that the artists themselves decide to issue NFTs on a part of their works, and to experiment with this technology. The only difference is the "non-native" nature of the work that is the typical case of crypto-art, as mentioned above, with a particular concern in the event of a previous transfer of the rights or part of them necessary for the creation of an NFT to a publisher, producer, and others.⁵⁷ This is likely to give rise to numerous cases of litigation since the creation of NFTs was not, apart from a few exceptions, provided for in the old contracts for the transfer of rights.

In the case of works that have fallen into the public domain within the meaning of intellectual property, the extinction of the author's economic rights is seventy years after their death. Any person may, without authorisation, exploit the work, including for commercial purposes, subject to respect for the author's moral rights. Thus, if the works belong to the public domain in the sense of intellectual property, no authorisation from the rightful owners is

⁵⁶ "The author of a work of the intellect enjoys, by the sole fact of its creation, an exclusive intangible property right that can be invoked against all parties."

⁵⁷ One example is the complaint filed by the production company Miramax against the director Quentin Tarantino after he announced his intention to sell non-fungible tokens (NFTs) based on his original handwritten screenplay for the film *Pulp Fiction*.

required for producing an NFT, with the exception of a possible infringement of the author's moral rights, on which the issuer of the NFT must always remain vigilant (*see below*).

It is also important to mention the case of content falling into the public domain but on which neighbouring rights remain, particularly in the case of recordings of the performance of these works. This is the case, for example, of the recording of a play by Molière in a recent staging. The work is in the public domain yet the performance generates neighbouring rights, which means that authorisation must be obtained from the author of the production, provided that its original character can be established, for exploitation. This also applies to the performance of a symphony in the public domain by an orchestra, which is also protected by related rights.

Producing NFTs on private collections, digital or otherwise, by others than the rights holder is the most complex case.

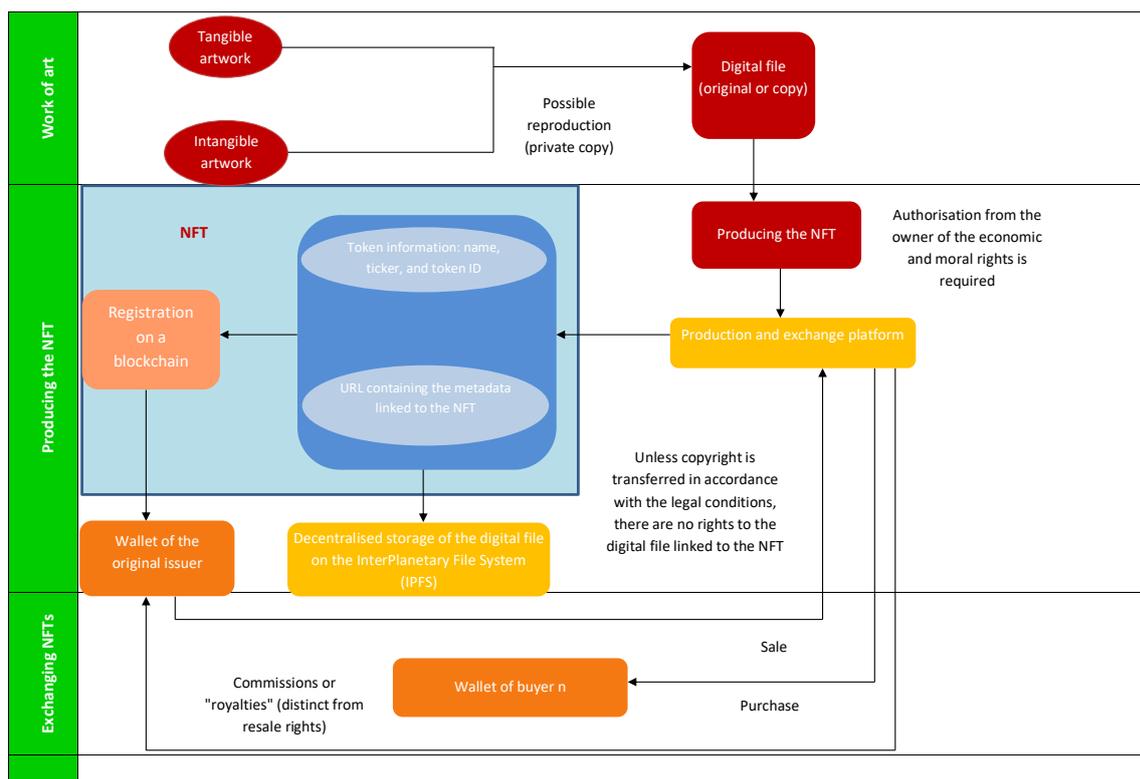
The first problem concerns identifying the owner of the rights necessary for producing and selling NFTs in the case of contracts for the transfer of rights or multiple rights holders. This can be complex as contracts, which are often old, rarely provide for NFTs. The example of NFTs created on August Sander's photographs by his grandson, who is being sued by SK Stiftung Kultur, which holds the rights until 2034, is significant in this respect.⁵⁸

Once the rights holders have been identified, the issuer must be insured that the rights holders or the artist have agreed to or assigned the rights necessary for the production of the NFT. An agreement or even a transaction with the rights holders is therefore necessary.

2. The production, issuance, and circulation of NFTs associated with copyrighted works are fully subject to intellectual property rights

The production of tokens on a pre-existing object or work involves first creating a reproduction of the work in the form of a digital file, which is not in itself subject to copyright. On the other hand, once this digital file is generated, the issuance of the associated token requires the indispensable agreement of the author or the author's successors in title, by virtue of their reproduction right, their right of representation, and the moral right of which they are the holders. The diagram below summarises the different stages of production, issuance, and circulation of NFTs.

⁵⁸ ["Legal battle over NFTs of August Sander photographs", Tom Seymour, The Art Newspaper, 9 May 2022.](#)



Source: mission.

a. Rights incurred by the production⁵⁹ of an NFT associated with a copyrighted work

Producing an NFT in the strict sense, i.e. creating a smart contract inscribed in a blockchain, with a certain number of functionalities, since it does not contain the work, is not in itself subject to copyright. There seems to be no reproduction, communication, or distribution through the creation of a non-fungible token in itself. Thus, in certain use cases, NFTs could remain outside intellectual property law.

In the case of producing tokens on a pre-existing object or work⁶⁰, an initial operation of reproducing the work in the form of a digital file must however be carried out.

If the work was lawfully disclosed, this initial operation of simply producing the digital file associated with the token does not in itself exceed the framework of private copying, provided that the reproduction is not made by a third party, which is an exception to the application of copyright. The legislation provides that, if the work has been disclosed, the author may not prohibit "copies or reproductions made from a lawful source and strictly reserved for the private use of the copier and not intended for collective use, with the exception of copies of works of

⁵⁹ Producing the NFT refers to the process of creating a non-fungible token and a digital file to be associated with it.

⁶⁰ Which must be understood here as referring, according to common sense, to a concrete object.

art intended to be used for purposes identical to those for which the original work was created [...] (Art. L.122-5 2 of the Intellectual Property Code). The purpose of this so-called "private copy" exception is to enable individuals, acting for non-professional purposes, to copy works for their personal use. The simple reproduction of a work from a lawful source thus falls within the scope of this exception.

b. Rights incurred by the issuance⁶¹ of an NFT associated with a copyrighted work

Once this digital file is generated, the issuance of the associated token requires the indispensable agreement of the author or the author's successors in title, by virtue of their reproduction right, their right of representation, and the moral right of which they are the holders.

Copyright does apply once the smart contract that registers the NFT in a blockchain incorporates a link to a unique digital file that can be exchanged and downloaded, and possibly confers rights on the holders of that link and file. Copyright is thus fully applicable not to the code, nor to the hyperlink referring to an existing digital space⁶², but to this single file and its uses.

(i) With regard to reproduction rights, Article L.122-3 of the Intellectual Property Code defines reproduction as "the material fixing of the work by any process enabling it to be communicated to the public in an indirect manner". This can be done "in particular by printing, drawing, engraving, photography, moulding, and any process of graphic and plastic arts, mechanical, cinematographic, or magnetic recording." "For works of architecture, reproduction also consists in the repeated execution of a plan or a standard project."

However, the production of a non-fungible token that is intended to be transferred enables the work to be communicated to the public indirectly via the link providing access to it, since the file associated with it is intended to be distributed successively to future holders of the NFT. As soon as the smart contract associated with the file is embedded in a blockchain, the issuer of the NFT cannot benefit from the private copy exception, insofar as the token is intended for future transactions. This could be considered different if the NFT created does not leave its digital wallet and the reproduction of the linked work is not exposed or reproducible in any way, for example in the use case of a certificate of authenticity associated with a physical work.

The owner of the rights to the work, author, successor in title, or third party to whom the reproduction right has been assigned on an exclusive basis, if applicable, must therefore authorise this initial reproduction under their reproduction right. In this respect, the author may request remuneration for the use of their work.

(ii) As regards the representation right, which, according to Article L.122-2 of the Intellectual Property Code, consists of "communicating the work to the public by any means", it is also fully applicable. Indeed, with some exceptions, it can be considered that creating an NFT implies holding performance rights over the work. This is insofar as the purpose of the digital files associated with NFTs is to be communicated to the public, at the very least on a platform for putting sellers and buyers in touch with each other or on the holder's digital space

⁶¹ The issuance of an NFT corresponds to associating the digital file with the smart contract of the token registered on a blockchain via a URL link.

⁶² See Svensson judgment (CJEU, 13 February 2014, Svensson, Case C-466/12).

such as a social network, metaverse, virtual gallery, and so forth, and by successive resales of the NFT created, and the communication of the file likely to be downloaded to its various purchasers. In this respect, the question of whether or not the link contained in the smart contract can constitute a communication to the public in light of case law (cited in footnote 62, p. 38) of the Court of Justice of the European Union (CJEU) on hyperlinks seems open to debate. This is in view of the technical questions that remain as to the accessibility of the file by others than the token holder at a given moment t , and in particular the possible referencing of its storage address.

Under these conditions, the issuer of the token will have to obtain the prior authorisation of the holder of the representation right of the work to mint its NFT, which the latter may make conditional upon payment of a consideration.

(iii) With regard to moral rights, generating an NFT on a work is likely to raise difficult questions: does the use of an NFT in connection with reproducing a work necessarily distort it and is it therefore likely to infringe on moral rights? As the artist enjoys a perpetual right to respect for their name, status, and work (Article L.121-1 of the Intellectual Property Code⁶³), which protects the personal nature of their work and is passed on to their heirs, an artist's successor in title could object to the disclosure of their work without their consent, to a use that would distort their work, or claim that their name should be cited. There will thus be a case for debate in the courts on the "distortion" that could be caused by producing a token on a work, in the presence of rightful claimants likely to assert the artist's moral rights.

At this stage, it appears to the mission that such a distortion could be identified in a certain way if the reproduction made of the work in the digital file is not a faithful copy, but a new work, possibly artistic, based on the work. Poor quality digitisation could also amount to a violation of the author's moral rights.⁶⁴ The distortion that would be committed by the mere association of a digital reproduction of the work with an NFT, on the other hand, seems much more uncertain, which could lead to issuers of NFTs being exempted from consulting the holders of the moral rights to the works.

(iv) It should be noted that producing and exchanging NFTs also brings the issue of the exhaustion of download rights into question.

The question is whether the uniqueness of a digital file linked to an NFT makes it a tangible medium on which the exhaustion of the distribution right would be exercised.

The conclusions of the High Council for Literary and Artistic Property (CSPLA) commission on "the second life of digital cultural goods" affirmed that making a work available for downloading does not fall under the distribution right. Thus, no exhaustion can be opposed

⁶³ "The author enjoys the right to respect for their name, their status, and their work.

This right is attached to the author's person.

It is perpetual, inalienable, and not subject to limitation.

It is transmissible upon death to the author's heirs.

The exercise of this right may be conferred on a third party by virtue of testamentary provisions."

⁶⁴ See e.g. TGI Paris, 2 Nov. 1988: infringement of the right to respect of the denaturing of a photo by a reproduction of poor quality due to the photoengraving and printing work.

to it, and the "resale" of files of protected works cannot be carried out without infringing upon the related reproduction and communication to the public rights. This analysis was confirmed by the decision of 19 Dec 2019, Case. C-263/18, Tom Kabinet, in which the CJEU held that the concept of a distribution right, subject to exhaustion, applies only to tangible objects. In this case, it thus considered that providing an electronic book by downloading it for permanent use was not covered by this distribution right, but by the "communication to the public" right provided for by Directive 2001/29, which is not subject to exhaustion of rights.

The exhausting of the distribution right thus applies only to the marketing of tangible medium of a work. This does not, therefore, apply to the making available, for the purpose of downloading, of digital files containing protected works, unless one considers that such files may constitute tangible mediums, a hypothesis excluded by the Court of Justice.

There are several reasons for considering that the exhausting of the distribution right does not apply to the sale of NFTs. An NFT is in fact a coded element in computer language that corresponds neither to the protected work nor to the physical embodiment of the digital file containing it. Nor does it constitute its material and tangible support.

In these circumstances, providing a digital file via an NFT for download for permanent use could fall within the scope of the "communication to the public" right under Directive 2001/29, which is not subject to exhaustion. This has implications for the growth of NFTs in the music and publishing sectors, for example.

(v) Under these conditions, issuing an NFT in an "uncontrolled" manner on a work on which one does not hold any rights is illegal. This exposes you to the usual sanctions for copyright infringement⁶⁵. The NFT issued could thus in reality be similar to a new autonomous mode of exploitation. It must be the subject of an agreement between the right holders and authors and the NFT issuers. This will apply unless the latter have already been granted the right to exploit the work "in a form not foreseeable or not planned at the date of the contract" under the required legal conditions.⁶⁶

3. The risk of intellectual property infringement during the transfer and resale of NFTs

The greatest risk of intellectual property infringement for authors and their assigns occurs during successive transfers and acquisitions of NFT on the secondary market.

In the light of the proposed NFT definition, it appears that the assignment of an NFT *may* be the vehicle for the assignment of copyright, although it is not necessarily always the case. It is up to its contractual environment to clarify whether or not this is the case. At any rate, the fact that a work is minted in the form of an NFT does not exclude the application of copyright.

(i) In the majority of cases observed in practice, the first buyer of an NFT, as well as subsequent buyers, do not hold any economic rights over the digital file associated with

⁶⁵ Copyright infringement is defined by Article L.335-3 of the Intellectual Property Code as "[...] any reproduction, representation, or dissemination, regardless of the means, of a work of the intellect in violation of the author's rights, as defined and regulated by law".

⁶⁶ Article L.131-6 of the Intellectual Property Code.

the NFT for which they hold title, unless the general terms & conditions of the platform or the special terms & conditions of the smart contract so provide.

In concrete terms, acquiring an NFT confers on its holder a certificate of ownership of the token linked to a file that cannot be used for anything other than strictly private purposes. This excludes any exposure on social networks or in the metaverse, for example, as well as any commercial use in a classic universe (derivative products, etc.) Therefore, the NFT simply enables access to the file. Indeed, any transfer of economic rights is subject to the conclusion of a transfer contract subject to specific formalities. In the absence of such a contract, no use is possible for the holder of the file.

This is the area of focus for the NFT community to avoid confusion about what is and is not assigned, to strengthen the legal framework of the NFT, and to give credibility to its value over time, including in the metaverse.⁶⁷

(ii) There are theoretically two options for granting NFT holders economic rights associated with the NFT they purchase: the assignment of rights, which can be compared to a sale, and the **licensing of rights,** which is similar to renting, which is distinguished in contractual practice. The essential difference lies in the very purpose of the contract. The assignment transfers one or more intellectual property rights, whereas the licence only involves a usage right. Both contracts may or may not be concluded on an exclusive basis.

The smart contract associated with the NFT could provide for the copyright attached to the digital file associated with the NFT to be encoded as metadata and recorded on a blockchain. However, Articles L.131-2 and L.131-3 of the Intellectual Property Code prescribe a strict formalism and compulsory mentions when forming a copyright assignment contract. It is also necessary to include the following in licence agreements⁶⁸: definition of the terms used, separate mention of each of the rights assigned in the deed of assignment, delimitation of the assignment, i.e. exhaustive enumeration of the modes of exploitation of the work envisaged, destination, place of exploitation, and duration of exploitation. In addition, if the transfer of rights is made for consideration, Article L.131-4 of the Intellectual Property Code provides that the author must receive a remuneration proportional to the revenue from the sale or exploitation, except in the cases of flat-rate remuneration provided for by this Article.

Thus, whether the NFT is linked to a rights assignment or rights licensing contract, **the main issue is the technological limitation of the information likely to be contained in a smart contract,** and the possibility of including in this smart contract the compulsory information provided for by the intellectual property code for the conclusion of a rights assignment and rights licensing contract, or, failing that, of including a link to such a contract containing all the legal and compulsory information. At this stage, the "encoding" of the legal conditions of a rights assignment or licence would appear difficult. On the other hand, integrating a link to a decentralised storage space where a regular and legal contract would be held, **raises the question of the security of the methods used to hold the contract.**

⁶⁷ Indeed, if a buyer acquires a two-dimensional NFT and wishes to use it later in the metaverse, in three dimensions, as an avatar, or by modifying its colour, a copyright assignment contract authorising such uses in due form is absolutely essential.

⁶⁸ "National programme for the digitisation and valuation of cultural content. A Guide to Good Practice in Literary and Artistic Property." 2017.

(iii) The question then arises as to what happens to the rights transferred on the secondary market.

In fact, several NFT issuers opted for a total transfer of the economic rights to the NFT owner, as is the case with the World of Women collections.⁶⁹ In this situation, the NFT's owner, who has acquired all the economic rights related to the NFT, can in turn assign all or part of the economic rights to a third party or to themselves, thus enabling the work to be registered as a trademark.

Nevertheless, if the first owner of the NFT resells it after having possibly stripped the economic rights of which they were the original exclusive owner, subsequent purchasers will not necessarily be informed. They may be led to believe that they in turn have acquired all the economic rights associated with the NFT they purchased.

Consequently, the conclusion of a licensing agreement granting only to successive NFT holders the right to exploit the work, without dissociating this right from the possession of the NFT, would have the merit of granting real rights to any holder of the NFT, and not only to the initial holder. The aim would be both to confer real rights on the NFT holder and to guarantee the rights of potential future purchasers.

Thus, on many trading platforms, NFTs presented for sale are often accompanied by an NFT licence enabling a precise description of the rights attached to a work in the event of a transfer. This was particularly the case with CryptoKitties, where Drapper Labs provided a limited licence enabling buyers to make commercial use of it up to a maximum of \$100,000 gross revenue per year.⁷⁰

Under these conditions, in the absence of any form of contractualisation, the sector is faced with an inadequate framework, defined by default in particular by the general terms & conditions of use of the sales platforms. These may imply that the author does not assign any rights, that they waive all forms of legal action against the buyers of their NFTs, and that they grant the buyers of NFTs a non-exclusive licence to use the digital work for non-commercial purposes, for example. These general terms & conditions also often include a double jurisdiction and choice of law clause that may prevent the application of copyright, which is not a matter of public policy.

4. The question of applying the resale right

Successive resales of NFT raise the specific question of the resale right, enabling the author or their assigns to benefit from a proportional remuneration on the occasion of the transfer of the work, the amount, and possible ceilings of which are set by decree by the Council of State. Article L.122-8 of the Intellectual Property Code subjects its payment to a certain number of legal conditions by defining it as "a non-transferable right to share in the proceeds of any sale of a work after the first transfer by the author or their assigns, if an art market

⁶⁹ Le Monde du Droit, Le Magazine des Professions Juridiques: "Le NFT, nouvelle poule aux œufs d'or", Guillaume Halbique, lawyer at the Paris bar, partner at the Marcus law firm, 25 April 2022.

⁷⁰ "NFT and copyright: how does it work?", Thibault LABIRE, Graduate of the Master 2 Private and Public Business Law of the University of Panthéon Assas Paris II. Under the supervision of Elias BOURRAN, Attorney at Law at the Paris Bar and Doctor of Law, Beaubourg Avocats, 10 December 2021.

professional acts as vendor, buyer, or intermediary". The legal resale royalty is thus due if several conditions are met: an art market professional must be involved in the resale of the work as vendor, buyer, or intermediary, the work - unique or in a limited number of copies - must have been created by the artist themselves or under their responsibility, the sale must be made on French territory or be subject to value added tax⁷¹...

In this respect, two distinct issues arise.

The first question is whether NFTs fall within the scope of Article R.122-3 of the Intellectual Property Code. This specifies that plastic creations on audiovisual or digital media must be made within the limit of 12 copies in order to fall within the scope of resale rights.⁷¹ The mission proposes a positive response: there is no reason to categorically exclude NFTs or their related files from the scope of this article.

On the one hand, if certain NFTs were to be considered, by way of exception, as digital mediums of plastic creations in themselves (a hypothesis in which the NFT incorporates the work, *cf. above p.20*), the possibility of paying a resale right would be limited to such NFTs designed exclusively within the limit of twelve copies. On the other hand, the digital files associated with NFTs must only exist in a limited number of examples to be eligible for the resale right. At this stage, the mission considers that the resale right can be applied to digital files associated with NFTs only if they are made in a limited number of twelve specimens, in accordance with the conditions set out in the aforementioned article. The legal applicability of the resale right raises technical questions in this context. This is due to the very possibility of assessing the limited number of these files, which does not necessarily correspond to the number of NFTs in circulation.

The second question raised concerns whether NFTs are likely to constitute a tool for the effective implementation of the resale right.

There is some confusion on the subject due to the intention of smart contracts to facilitate the automation of the collection and payment of commissions that could be similar to or even assimilate to remuneration for copyright and related rights, which are in fact today mainly operated by NFT sales platforms.

However, the resale right as defined by Article L.122-8 of the Intellectual Property Code and the possibility of remitting to the initial issuer a fixed percentage of the successive resales directly into their portfolio are not equivalent, despite the sometimes-abusive terminology. Indeed, the resale right is only applicable under certain specific conditions. In particular when

⁷¹ "The works mentioned in Article R.122-2 are original graphic or plastic works created by the author personally, such as paintings, collages, pictures, drawings, engravings, prints, lithographs, sculptures, tapestries, ceramics, glassware, photographs, and plastic creations on audiovisual or digital media.

Works created in a limited number of copies under the author's responsibility shall be considered original works of art within the meaning of the preceding paragraph if they are numbered or signed or otherwise duly authorised by the author. These include:

- a) Original engravings, prints, and lithographs produced in limited numbers of one or more plates;
- b) Editions of sculpture, up to a limit of twelve copies, numbered pieces, and artist's proofs combined;
- c) Tapestries and works of textile art made by hand on the basis of original models supplied by the artist, up to a limit of eight examples;
- d) Enamels executed entirely by hand with the artist's signature, up to a limit of eight numbered copies and four artist's proofs;
- e) Up to thirty signed photographic works, irrespective of format and medium;
- f) Plastic artwork on audiovisual or digital media, up to a limit of twelve examples.

an art market professional is involved, where the "*royalties*" or commissions that may be paid by an NFT exchange platform apply independently of the conditions of sale of the work, such as via auction platforms, between private individuals, and through auctioneers and auction houses. Moreover, the resale right is inalienable. It is a matter of public policy. It cannot therefore be the subject of a contractualisation that would lead to its reduction or calling it into question.

Under these conditions, the "*royalties*" wrongly qualified as "resale rights", although they do not meet the legal conditions for their implementation, can in no way replace the legal resale right. The latter will always be applicable as soon as the conditions set out in Article L.122-8 of the Intellectual Property Code are met. On the other hand, the commissions or *royalties* provided for by the NFT marketplaces can perfectly well coexist with the legal resale right. It is quite conceivable that the holder of the resale right decides, when issuing the non-fungible token associated with a file on which they hold rights, to provide for a 4% commission on each resale.

Given their current characteristics, it is unclear whether all NFT exchange platforms can be considered as "art market professionals", operating sales that are subject to the legal resale right, although their role as online merchants may encourage this classification.

However, it is conceivable, subject to the development of standards and protocols, that the smart contract could include the automatic application not only of the commissions or royalties currently paid by the platforms, but also of the legal right of resale. This would be achieved through the inclusion of a clause relating to the conditions of sale, whether or not an art market professional is present, whether or not there is advertising, which could, for example, be declared by the successive buyers. This would be a powerful tool for consolidating the effectiveness of the resale right.

3. NFT and art forgeries

On another note, the production of NFTs raises the issue of art forgeries⁷², sanctioned by the Act of 9 February 1895. This targets forgers and intermediaries who knowingly participated in transactions involving illicit works.

Indeed, the question of authorship is a key issue, particularly in establishing the value of NFTs. Anyone can now make an NFT of a file available on the Internet even if it does not belong to them. This is possible even if they are not the author. The interviews conducted by the mission revealed that platforms do not spontaneously verify the identity of the NFT originator at the present time. Of course, the NFT is not the work itself, with some exceptions, rather a title of rights associated with the reproduction of a work. However, one could imagine the production of NFTs associated with files presented as reproductions of an existing work, or even files associated with an NFT that are falsely attributed to an author in order to be valued above their true value.

However, recourse to the Act of 1895 to impose penalties for art forgeries is only possible if three cumulative conditions are met. These include whether the forgery contains a signature or

⁷² It should be noted that artistic forgeries are currently the subject of a High Council for Literary and Artistic Property (CSPLA) mission, led by T. Azzi and P. Sirinelli (see [mission statement](#)).

a distinctive sign referring to a specific artist. The works of the artist whose signature or sign is used must not be in the public domain in the sense of intellectual property. The fake works must be those of painting, sculpture, drawing, engraving, and music, lithographs being considered as engraving. Photography and applied arts (e.g. design) are not covered. These cumulative and very restrictive conditions laid down by the Act of 1895, particularly with regard to the nature of the false work, are rather difficult to apply to NFTs, although they could be applied to the files associated with them.

For example, one could imagine the scenario of a file presenting itself as an excerpt of music wrongly attributed to a composer, or as a native digital work bearing the signature of an artist who is not the author. Nothing excludes the possibility that the files associated with the NFT could be considered as false works, subject to the penalties for art forgery, punishable by two years' imprisonment and a fine of €75,000, plus damages and the destruction of the work.

Under these conditions, subject to changes in case law or legislation, the creation of the non-fungible token does not enable the usual sanctions provided for by intellectual property law and the Act of 9 February 1895 to be avoided, which remain fully applicable.

4. Legal framework governing the production and circulation of NFTs associated with goods falling within the public cultural domain

According to administrative law, the public domain refers to property belonging to public persons including the State, commune, county (département), region, public establishment, and so on, assigned for the direct use of the public or for a public service.⁷³

Thus, the works in the public collections of museums belong to the cultural public domain. Article L.2112-1 of the General Code of the Property of Public Persons explicitly states that *"property of public interest from the point of view of history, art, archaeology, science, or technology, in particular: (...) 8th Museum collections, are part of the movable public domain of the public owner"*.

One of the first issues raised by the production of tokens on works or objects belonging to the public domain is therefore its two fundamental characteristics: non-transferability⁷⁴ and non-expirability.

Nevertheless, in the light of the NFT definition proposed in the first part of this report, these two characteristics cannot in themselves prevent the production of tokens on works in the public domain.

Indeed, the NFT can be seen as a format that does not represent a transfer of the work. It would be like a rare derivative product, like the Louvre's chalcography productions⁷⁵ of prints sold in limited editions or the original bronze editions of the Rodin Museum⁷⁶.

⁷³ Article L.2111-1 of the General Code of Public Property.

⁷⁴ Regulated by the Edict of the Mill in 1566.

⁷⁵ <https://ateliersartmuseesnationaux.fr/fr/estampes/conservation-dune-collection-historique>

⁷⁶ <https://www.musee-rodin.fr/musee/institution/editions-originales-de-bronze>

Although the main mission of public museums is to conserve, restore, study, enrich, disseminate, and exhibit their collections to the public⁷⁷, the enhancement of public collections through the creation of derivative products or, in this case, non-fungible tokens is a way for public museums to make their works known and to obtain additional revenue. This activity can therefore be seen as ancillary, useful, and of general interest. This is required by case law,⁷⁸ which considers that the principle of speciality does not preclude the diversification of a public entity's activities. This is on condition that these activities are the normal complement to its main statutory mission and that they are both of general interest and useful to the person concerned.

The conditions under which non-fungible tokens associated with works or objects belonging to the public collections of museums may be minted remain to be defined.

In this respect, although any occupation or private use of the public domain is in principle subject to the issuance of an authorisation⁷⁹ and the payment of a fee⁸⁰, the Council of State recently recalled that public persons do not have an exclusive right over the image of property belonging to them.

Thus, in its decision CE, 13 April 2018, *Société Les Brasseries Kronenbourg*, no. 397047, the State Council ruled: "*As public persons do not have an exclusive right to the image of property belonging to them, the latter is not among the goods and rights mentioned in Article L.1 of the General Code of the Property of Public Persons [...]. It follows that the image of a property in the public domain cannot constitute a dependency of this domain either by itself or as an inseparable accessory of this property within the meaning of the provisions of Article L.2111-2 of the General Code of the Property of Public Persons.*"⁸¹

Under these circumstances, the use for commercial purposes of the image of a property belonging to the public domain does not in itself constitute a public private use. It is not subject to the granting of a licence to use the public domain and the payment of a fee. A public owner has no exclusive right to the image of its property in the public domain, including where these images are used for commercial purposes. Even if it can, in the same way as a private owner, rely on the solution reached by the Court of Cassation in its ruling of 7 May 2004,⁸² according to which "the owner of a thing does not have an exclusive right to its image" but "can (...) oppose the use of this image by a third party if it causes abnormal disturbance". Part of the legal literature considers that the decision of 13 April 2018 did not, however, call into question the State Council's decision of 29 October 2012, *Commune de Tours*, no. 341173.⁸³ This recognises

⁷⁷ According to Article L.441-2 of the French Heritage Code: "The permanent missions of the museums of France consist of: a) Preserving, restoring, and enriching their collections; b) Making their collections accessible to the widest possible audience; c) Designing and implementing educational and dissemination activities aimed at ensuring equal access to culture for all; and d) Contributing to the progress of knowledge and research and to their dissemination."

⁷⁸ CE, opinion no. 356089 of 7 July 1994, Diversification of EDF/GDF activities.

⁷⁹ Article L.2122-1 of the General Code of the Property of Public Persons (CG3P).

⁸⁰ Article L.2125-1 of the same code.

⁸¹ This solution was recently confirmed by the Paris Administrative Court of Appeal (Paris Regional Court of Appeal, 27 February 2020, *Société Getty Images US (Inc.)*, no. 19PA02126).

⁸² Court of Cassation, Plenary Assembly, 7 May 2004, *Hôtel de Girancourt*.

⁸³ "The taking of photographs of works belonging to a museum's collections for the purpose of marketing the photographic reproductions thus obtained, must be regarded as a private use of the public domain, implying the need for the person intending to do so to obtain authorisation as provided for in Article L.2122-1 of the same code. Such an authorisation may be issued provided that, in accordance with Article L.2121-1 of this code, this activity remains compatible with the allocation of the works to the cultural public service and with their conservation. It is

the right of museums to refuse authorisation to take photographs for commercial purposes of works in their collections, if they require the privatisation of the space. On this point, there exists also an important debate on the possibility for the internal regulations of a museum to prohibit the taking of photographs by the public.⁸⁴

There is a distinction here with the regime instituted for protecting the image of buildings on national domains and their economic development by Article L.621-42 of the Heritage Code resulting from the Act of 7 July 2016 on the freedom of creation, architecture, and heritage⁸⁵, also recalled by the aforementioned *Société Les Brasseries Kronenbourg* decision. It follows from this article that producing an NFT on the image of one of the national domains⁸⁶ identified in the recently amended⁸⁷ Decree of 2 May 2017 establishing the list and scope of national domains is subject to the agreement of the managers of the buildings in question. In concrete terms, this means that it is forbidden to make a legal reproduction of an element of the building of one of these domains and to make an NFT of it without the prior agreement of the managers.

On the other hand, producing an NFT on a work in a collection belonging to the public cultural domain does not constitute a public private use. It is not subject to the issuance of an authorisation for use of the public domain.

The recording of an image of the work under certain special terms & conditions, for example, in the absence of the public, with lighting or at a particular time, may be subject to a fee, provided there is a direct consideration in the service provided.

As for the re-use of existing reproductions of the work, it is subject to the law applicable to the re-use of public information. This corresponds to use by a third party for purposes other than those of the public service mission for which the documents were produced or received (Article L.321-1 of the Code of Relations between the Public and the Administration). Within this framework, only public information can be re-used, i.e. information that can be freely communicated within the meaning of Articles L.311-5 and L.311-6 of the Code of Relations between the Public and the Administration and L.213-2 of the Heritage Code, and on which third parties do not hold intellectual property rights (Article L.321-2 of the same Code).

A priori, case law considers that photographs of works of art cannot be considered as an "original" creative act. Although photographic reproduction requires a certain know-how, the

however possible for the public authority assigning works falling within the category of goods mentioned in no. 8 of Article L.2112-1 of the General Code of the Property of Public Persons, in compliance with the principle of equality, not to authorise a private use of this movable public domain without, as stated in recital 2, any right based on the principle of freedom of trade and industry to carry out an economic activity on this public domain being able to be usefully invoked against this refusal."

⁸⁴ TA Paris, 28 March 2019, no. 1708973/5-2.

⁸⁵ "The use for commercial purposes of the image of the buildings constituting the national domains, on any medium, is subject to the prior authorisation of the manager of the relevant part of the national domain. This authorisation may take the form of a unilateral agreement or a contract, with or without financial arrangements. The fee shall take into account the benefits of any kind accruing to the holder of the authorisation. The authorisation referred to in the first paragraph shall not be required if the image is used within the framework of the exercise of public service missions or for cultural, artistic, educational, teaching, research, information, and news illustration purposes.

A State Council decree shall define the terms and conditions for the application of this article."

⁸⁶ Decree no. 2017-720 of 2 May 2017 establishing the list and scope of national domains.

⁸⁷ Decree no. 2021-1174 of 10 September 2021 completing the list of Article R.621-98 of the heritage code and defining the scope of national domains.

reproduction of a work of art cannot be the subject of new copyright. This is subject to the condition that it does not benefit from the application of the criteria of originality, the abusive claim of copyright being even likely to be sanctioned. Only certain photographs of three-dimensional works such as sculptures, installations, and the like, or of works placed in context, can benefit from copyright protection if it is considered that the photographers contributed a creative view of the work represented, expressing their personality. They are then qualified as composite works, defined by Article L.113-2 of the Intellectual Property Code.⁸⁸

Moreover, if a public institution holding a collection of photographic material can avail itself of its intellectual property rights for photographs taken by its staff, it cannot, in the case of commercial re-use, benefit from the transfer provided for in Article L.131-3-1 of the Intellectual Property Code.⁸⁹

All re-use is, by default, free of charge (Article L.324-1 of the Code of Relations between the Public and the Administration). However, cultural services such as archives, museums, and libraries benefit from an exception provided for in Article L.324-2 of the Code of Relations between the Public and the Administration.⁹⁰ This enables them to set up royalties for information "resulting from the digitisation of the holdings and collections of libraries, including university libraries, museums, and archives, and, where applicable, on information associated with them if the latter are jointly marketed". However, such a fee does not in any way correspond to remuneration for copyright.

For example, the commercial re-use of photographs belonging to the RMN-GP's photographic agency is subject to a royalty, on this basis in particular. Issuers of any NFTs on works belonging to the public collections of museums should naturally pay the fee if they re-use images belonging to the agency. In the same vein, in an opinion dated 7 February 2019 relating to the release of three-dimensional scans of works of art from the Rodin Museum and the possibility of their commercial re-use⁹¹, the CADA recognised the character of communicable administrative documents of the scans requested, held by the museum as part of its public service mission, having already been the subject of disclosure within the meaning of the Intellectual Property Code, while admitting the possibility of subjecting their commercial re-use to the payment of a fee, subject to the drawing up of a licence.

The combination of the open data policy and the non-transferability and non-expirability of the public domain means that anyone can photograph, reproduce, or use an existing reproduction of a work to issue a non-fungible token. This is subject to the granting of a licence for the latter operation, if necessary, and the possible payment of a

⁸⁸ "A new work is said to be a composite work into which a pre-existing work is incorporated without the collaboration of the author of the latter."

⁸⁹ Act no. 2006-961 of 1 August 2006 on copyright and related rights in the information society stipulates that public officials hold the copyright to works they create in the course of their duties. However, Article L.131-3-1 specifies that "to the extent strictly necessary for the accomplishment of a public service mission, the right to exploit a work created by a State employee in the exercise of their duties or according to instructions received is, from the moment of creation, transferred by right to the State".

⁹⁰ "Re-use may also give rise to the payment of a fee if it concerns information from the digitisation of the holdings and collections of libraries. This includes academic libraries, museums, and archives, and, where appropriate, associated information if it is jointly commercialised. The total proceeds of the amount of this fee, assessed over an appropriate accounting period, shall not exceed the total costs of collecting, producing, making available or disseminating, preserving their information, and acquiring the intellectual property rights."

⁹¹ Commission on the access to administrative documents (CADA), Council of 7 February 2019, Musée Rodin, no. 20190026.

fee on the basis of Article L.324-2 of the Code of Relations between the Public and the Administration, **and also to the limits relating to the re-use of public data encumbered by "third party rights"**.

However, it is important to distinguish between two different situations.

(i) If the works in public museum collections have not yet fallen into the public domain in the sense of intellectual property, a configuration similar to that mentioned above for works in private collections will be encountered. It will be necessary to obtain authorisation from the holders of the economic rights to reproduce the work, and then to exploit it commercially through the sale of the NFT.

(ii) While such authorisation will not be necessary for the majority of works in public museum collections that are in the public domain within the meaning of administrative law and have fallen into the public domain within the meaning of the Intellectual Property Code, there is in all cases a point of attention to the author's moral rights, which are perpetual, non-transferable, and non-expirable. If there is any doubt about a possible infringement of the artist's moral rights, it is advisable to consult the rights holders to ensure their agreement.

5. Possible sanctions for copyright infringement

In view of these various observations, the question of the possibility of removing infringements from the system has arisen. Thus, the immutable nature of a blockchain seems to be an obstacle to the implementation of a jurisdictional decision, once the competent jurisdiction and the applicable legislation have been established.

The effectiveness of legal decisions that could eventually sanction copyright infringements and art forgeries appears all the more essential as the OpenSea platform itself has acknowledged that more than 80% of NFTs put online thanks to its free tool ("*lazy minting*") are plagiarisms of original works, forgeries, or spam⁹².

Platforms have a clear interest in combating this phenomenon. They often remove them, either on their own or at the instigation of the rights holders, when one of the NFTs offered for sale is contested.⁹³

From a legal point of view, the primary issue is identifying the competent jurisdictional authorities and the applicable law, in the absence of territorialisation of NFTs. While some GT&C of NFT buying and selling platforms include jurisdiction and applicable law clauses, most of the time this is not the case abroad. This is a major point of attention for players wishing to engage in the production or acquisition of NFTs. This does not mean, however, that French intellectual property law would not apply to NFTs associated with works whose right holders are French, produced or acquired in France, depending in particular on the territoriality of the associated rights licences, where applicable, and subject to the

⁹² "OpenSea: More than 80% of free NFTs created are fake, plagiarised, or spam", 20 minutes, 3 February 2022.

⁹³ For example, when contacted by the Hermès luxury brand, OpenSea removed Mason Rothschild's MetaBirkins from the platform.

technical possibility of identifying the issuers of the NFT despite the pseudonymity of a blockchain, but also to the location of the infringing act.

From a technical point of view, the mission's current understanding is that it seems possible to "burn" an NFT in several ways. This could be viewed as a measure to stop infringing acts ordered by a judge.

Burning of NFTs involves either sending an NFT to an unusable address for which the private key is not held. This enables anyone to prevent it from being transferred or modified. Or it activates a function of the smart contract already foreseen at the time of the production of the NFT enabling to definitively prevent the transfer of the NFT to another public address. For example, consideration could be given to creating an unusable address so that if a work is found to be infringing at the time of a trial, it can be sent to that address and can no longer be retrieved, or to requiring that the smart contract functions used by sales platforms include such a feature.

However, while the NFT can be neutralised by being rendered inaccessible or intransferable, this is not the case for the infringing file, the destruction of which is not currently covered by this operation. The file (jpg, png...) stored on the InterPlanetary File System (IPFS) or elsewhere is not affected by the burn, although it is possible, by a separate operation to "unpin" a file on IPFS to make it less immediately readable. This can in principle be removed eventually if no one else on the network references it again. Deleting the infringing file could thus also be a measure ordered by the judge.

6. Status of platforms and liability for copyright protection

The possible infringements of intellectual property by NFTs and their sanctions cannot be discussed without mentioning the essential role of NFT exchange platforms, such as OpenSea, SuperRare, or Rarible. These are centralised players claiming to be simple marketplaces bringing together vendors and buyers of NFTs. This enables them to disclaim any responsibility for copyright protection, other than to remove content promptly if notified.

For example, the OpenSea general terms & conditions state:

"You represent and warrant that you have, or have obtained, all necessary rights, licenses, consents, permissions, power, and/or authority to grant the rights herein for any content you create, submit, post, promote, or display on or through the Service. You represent and warrant that this content does not contain any material that is subject to copyright, trademark, publicity rights, or other intellectual property rights, unless you have the necessary permission or are legally entitled to publish the material and grant OpenSea the license described above, and that the content does not violate any laws."

OpenSea will remove works in response to Digital Millennium Copyright Act ("DMCA") takedown notices and/or other intellectual property infringement claims. It will terminate a user's access to the Service if it is determined that the user is a repeat infringer.⁹⁴

Similarly, SuperRare's general terms & conditions state:

"By minting a SuperRare item, artists expressly represent and warrant that their work is an original creation. Artists are prohibited from minting works consisting of copyrighted content without a license or permission. This includes any image, design, sound, video, human likeness, or other non-original

⁹⁴ Interpretation by the Mission.

content not created by the artist, whose use has not been authorised by the artist, is not in the public domain, or has not been the subject of a valid fair use claim. Artists may only strike works that they have personally created. They must refrain from minting works for which copyright ownership is unknown or disputed, i.e. commissioned works or "works made for hire".

[...] The Artist expressly declares and guarantees that the works minted on the SuperRare Platform contain only original artistic content whose use is authorised by the Artist. To the extent that a work contains non-original content, including content from other SuperRare Artists' works, the artist further represents and warrants that they have permission to incorporate the non-original content. The artist represents and warrants that the sale, display, or performance of a SuperRare minted item on the platform does not constitute a breach of any agreement, contract, or obligation to any third party.

Failure to comply with these terms and/or community guidelines may result, without limitation, in the suspension or deletion of the artist's account, revocation of minting privileges and other permissions to smart contracts or the Superrare Platform, removal of the artist's items from the site's listing, or payment of damages. SuperRare has the unilateral authority and discretion to remove, suspend, or revoke artists' access to SuperRare smart contracts or any other aspect of the platform."⁹⁵

These platforms act as intermediaries between buyers and sellers, but not exclusively. They are currently the only sites where the digital files associated with NFTs offered for sale are displayed together in an easily accessible manner, if their content is suitable. They also play an active role in generating NFTs, since in the vast majority of cases they offer their users the possibility of registering NFTs they create in a blockchain themselves. This exempts them from coding and *minting* operations. All they have to do is "drag and drop" the file they want to associate with their NFT onto the platform. If necessary, after a period of storage of their file in the case of *lazy-minting*, the platforms only register it in a blockchain at the time of the transaction. Finally, these platforms enable transactions in euros. They take care of the conversion, while they handle the payment of the commissions provided for in the smart contract as the transactions take place.

The first question raised by the status of NFT trading platforms is whether they engage in an act of communication to the public or an act of making available to the public by providing public access to copyrighted works or other protected matter uploaded by their users.

As the Court of Justice recalled in a 22 June 2021 ruling,⁹⁶ under the authority of Directive 2001/29/EC of 22 May 2001, in order to be able to consider whether a platform operator is carrying out an act of communication to the public, it must play an indispensable role in making illegal content available (see CJEU 14 June 2017, Stichting Brein, Case C-610/15).

Moreover, even before the entry into force of Directive 2019/790/EU, in line with its previous case law (see in particular, CJEU 23 March 2010, Google France and Google, Cases C-236/08 to C-238/08; 12 July 2011, Case C-324/09, L'Oréal (Sté) v eBay International (Sté)), the Court considered that the exemption from liability established by Article 14 of Directive 2000/31/EC of 8 June 2000 on electronic commerce can only be applicable to intermediary service providers who play a purely technical, automatic, and passive role in the transmission of information, without knowledge or control of the information stored or transmitted.

⁹⁵ Idem.

⁹⁶ [CJEU 22 June 2021, Case C-682/18 and C-683/18](#)

However, the Court's position seems to be, in principle, that video sharing platforms, such as YouTube, do not engage in acts of communication to the public. "(...) Article 3(1) of the Copyright Directive must be interpreted as meaning that the operator of a video-sharing platform or of a file-hosting and sharing platform, on which users may unlawfully make protected content available to the public, is not making a "communication to the public" of that content, within the meaning of that provision, unless it contributes, beyond the mere provision of the platform, to giving the public access to such content in breach of copyright."

The issue is therefore to ascertain whether NFT platforms play a role, through action or inaction, in the disregard of copyright. It seems possible to consider that these platforms play a more active role in the "creation" of content than a video content sharing platform such as YouTube, for example, insofar as they offer the possibility of registering works in a blockchain in the form of tokens, thus directly producing NFTs in the place of their vendor, even if they are associated with infringing works. They can also be seen as more actively facilitating access to content than a traditional file-sharing or hosting platform, because they enable files that would theoretically only be accessible on decentralised storage spaces to be made visible in one place, via links held by the NFT owner.

According to the above-mentioned ruling of 22 June, if it were shown that these platforms had actual knowledge of the unlawful availability of protected content on their site and failed to remove or block access to it promptly, they could not benefit from the exemption from liability provided for in Directive 2000/31 on electronic commerce (see paragraphs 107 and 108 of the above-mentioned Court ruling).⁹⁷

The activity of these platforms could in any case fall under Article 17 of Directive 2019/790/EU. This sets out a specific copyright liability regime for online content sharing service providers.⁹⁸ This essentially refers to digital platforms on which Internet users share a significant amount of protected content.

This Article would apply if NFT trading platforms can be considered as providers of online content sharing services, on the one hand, and if they communicate or make available to the public copyrighted works or protected subject matter uploaded by its users within the meaning of this Article, on the other hand. Under the terms of the Directive, a favourable response to these two questions would imply that these operators could only benefit from an exemption from liability if they carried out a certain amount of due diligence. They must

⁹⁷107. In that regard, it should be noted that, if the Court of First Instance were to find, in the context of its examination of Article 3(1) of the Copyright Directive, that YouTube or Cyando contributes, beyond the mere provision of its platform, to providing the public with access to protected content in breach of copyright, the operator concerned would not be able to rely on the exemption from liability provided for in Article 14(1) of the E-Commerce Directive.

108. It is true that, as the Advocate General pointed out in paragraphs 138 to 140 of their Opinion, the question whether such an operator makes a "communication to the public" within the meaning of Article 3(1) of the Copyright Directive is not, in itself, decisive for the purposes of assessing whether Article 14(1) of the E-commerce Directive applies. The fact remains that such an operator who is contributing, beyond the simple provision of the platform, to giving the public access to such content in violation of copyright, cannot be considered to meet the conditions for application of the latter provision, as recalled in paragraphs 105 and 106 of this ruling."

⁹⁸ Article 2(6) of the Directive defines a "provider of online content sharing services" as "the provider of an information society service whose main purpose or one of whose main purposes is to store and provide public access to a substantial amount of copyrighted works or other subject-matter uploaded by its users that it organises and promotes for commercial purposes".

demonstrate that (i) they exercised their best efforts to obtain authorisation from the rightholders referred to in Article 3(1) and (2) of Directive 2001/29/EC, for example by concluding a licensing agreement, in order to communicate or make available to the public works or other subject-matter, (ii) they exercised their best efforts to ensure the unavailability of specific works and other subject matter; (iii) and in any event, they acted promptly, upon receipt of a sufficiently reasoned notification from the rightholders, to block access to the notified works and other subject matter or to remove them from their websites, and exercised their best efforts to prevent them from being uploaded in the future.

There are elements that can effectively link the sector's platforms to online content sharing service providers, as suppliers of an information society service, a significant part of whose activity is to display NFTs offered for sale in the form of digital galleries, sometimes even with a link to the artist's or author's website. This role of promoting the work of artists whose NFTs are sold is all the more important on platforms specialising in art that have been booming over the past year.

However, qualifying the platforms as online content sharing service providers is not entirely clear.

On the one hand, Article 2(6) of Directive 2019/790/EU explicitly excludes from the category of online content sharing service providers within the meaning of the Directive "[...] online marketplaces [...]". Nevertheless, there is nothing to exclude whether the judge's characterisation of buying and selling platforms of NFTs is distinct on this point from the way platforms determine themselves, which is only an indication of the nature of their activities. It may also be considered that this is not an exclusion in the strict sense but an illustration, by way of examples, of the two cumulative criteria making it possible to define providers of online content-sharing services, namely the profit motive and the fact of providing access to works.

On the other hand, and in the same sense, a question remains as to whether their main purpose or one of their main purposes can be considered the storage and public access to a significant amount of copyrighted works or other protected matter uploaded by its users that they organise and promote for profit. While the statutes of a platform such as OpenSea, for example, indicate that it provides "a peer-to-peer web service³ that helps users **discover** and interact directly with each other and with NFTs available on public blockchains", implying a dual dimension of interaction with other users and discovery of NFTs, SuperRare's statutes bring it even closer to a marketplace. "The SuperRare platform uses specially designed smart contracts to enable artists to **sell their creations to collectors in a digital peer-to-peer marketplace.**" It therefore seems difficult to provide an unequivocal and general answer on this point.

The possibility of qualifying platforms as "galleries" for the purpose of promoting works therefore remains controversial, whereas the activity of making copyrighted works available to the public is not in itself being promoted for profit.

If we can overcome this uncertainty, which is what this report proposes to do in view of the attractiveness of the platforms, the unprecedented access they enable to a large number of works, which are key elements of their profitability, and above all the fact that they facilitate or even enable the creation of NFTs by taking charge of mining the files deposited by users and recording them in a blockchain, it seems that NFT exchange platforms may fall within

the scope of Article 17 of the Directive, which requires them to fulfil all the provisions of that article, in particular paragraph 4.)

B. Economic uncertainties on the tax and regulatory front, particularly linked to the uncertain legal classification of NFTs under the law

The ongoing uncertainty surrounding the legal classification of NFTs and their recent nature are the source of more situational legal questions, relating to the tax regime and applicable financial regulations.

In this respect, assimilation to digital assets as defined by the Monetary and Financial Code, although it does not, as we have seen, enable the specific nature of NFTs to be fully grasped, remains relevant in the short term. This is because of the multiplicity of possible uses of NFTs and the difficulty of establishing a definitive regulatory and fiscal framework in the presence of such a volatile and recent market.

In the medium and long term, adaptations to the non-fungible nature of certain NFTs that do not fall into the category of *utility tokens* or *security tokens* could be considered. An adapted tax regime could then be devised, for example with regard to NFTs of works of art. However, these developments cannot take place without a definitive legal qualification of this subject by the legislators, who will be able to decide in the light of the uses that will persist in a more mature and stable market.

1. Tax system

Given the uncertain legal status of NFTs, the question of the tax regime applicable to them is regularly raised by parliamentarians.⁹⁹ This is so much so that a draft amendment to the PLF 2022¹⁰⁰ aimed at creating an ad hoc tax regime was finally withdrawn in the public session.

With regard to the taxation of individuals, assimilating NFTs to digital assets now enables the capital gains regime to be applied to individuals.

The legal regime applicable to digital assets is derived from Act no. 2019-486 of 22 May 2019 on the growth and transformation of businesses (PACTE).

A specific tax regime applicable to capital gains on the occasional sale of digital assets by individuals was created by Article 41 of Act no. 2018-1317 of 28 December 2018 on finance for 2019 in Articles 150 VH *bis* and 200 C of the General Tax Code. This measure only covers capital gains on the sale by individuals of digital assets as defined by Article L.54-10-1 of the Monetary and Financial Code. It takes into account the liquidity and uniqueness of these assets.

In this context, transfers for consideration of digital assets are taxable events:

⁹⁹ See written question no. 22200 by Mr Jérôme Bascher (Oise - Les Républicains) published in the JO Sénat of 15/04/2021 - page 2459.

Question No. 43760 by Mrs Véronique Louwagie (Les Républicains - Orne) published in the JO AN on 25/01/2022 - p.450.

¹⁰⁰ Amendment tabled on 30 September 2021 in the Finance Committee by Deputy Pierre Person: https://www.assemblee-nationale.fr/dyn/15/amendements/4482A/CIION_FIN/CF879.pdf. Amendments tabled on 7 October 2021 in public session by the general rapporteur and by the deputy Pierre Person: <https://www.assemblee-nationale.fr/dyn/15/amendements/4482A/AN/1387.pdf>; <https://www.assemblee-nationale.fr/dyn/15/amendements/4482A/AN/1894.pdf>

- Legal tender, sometimes called *fiat* currency;
- The exchange of a property other than a digital asset;
- The exchange of a digital asset for cash if the vendor receives part of the sale in cryptocurrency and *fiat* currency;
- A service.

In this way, exchanges between digital assets and cryptocurrencies without compensation are placed on tax deferral. The capital gain is taxed at the time of the conversion into *fiat* currency.

The tax regime applicable to occasional disposals of digital assets by individuals adopts a portfolio logic for all of an individual's digital assets. Thus:

- Capital gains are based on an acquisition price taking into account the weighted average value of the portfolio of digital assets held by the individual;¹⁰¹
- A tax deferral is provided for transactions involving the exchange of digital assets without a cash payment;
- Capital losses on the disposal of digital assets are deducted from capital gains of the same kind realised in the same year;
- Annual disposals of a total amount of less than €305 are exempt.

Finally, these capital gains are subject to the 12.8% income tax rate under Article 200 C of the General Tax Code, rather than the 19% rate for disposals of movable property excluding social security contributions. This rate increases to 30% if social security contributions of 17.2% are included. It should be noted that Article 79 of the LF for 2022 provides that, by way of derogation from applying the flat rate of 12.8%, capital gains on the sale of digital assets made in a non-professional context may, if the taxpayer expressly and irrevocably opts in, be subject to the progressive scale of income tax. This provision is applicable to disposals made starting on 1 January 2023.

The situation is somewhat different if the purchase and resale of NFTs is carried out on a regular basis. It is understood that the doctrine considers that "the criteria of habitual or occasional exercise of the activity result from the analysis, on a case-by-case basis, of the factual circumstances in which the purchase and resale operations are carried out, such as the time periods separating the purchase and resale dates, the number of digital assets sold, the conditions of their acquisition, and so on."¹⁰² If the purchase and resale of digital assets, carried out on a regular basis for one's own account, is considered to be a commercial activity by nature within the meaning of Article L.110-1 of the Commercial Code, then this revenue must be declared under the category of industrial and commercial profits.¹⁰³ From 2023 onwards, the proceeds from the purchase, sale, and exchange of digital assets carried out under conditions similar to those of professionals will be taxed in the category of non-commercial profits (BNC) (Article 70 of the Finance Act for 2022). The professional or non-professional character of operations involving digital assets will no longer be assessed on the basis of their customary nature, but with regard to the conditions under which they are carried out.

¹⁰¹ More precisely, the capital gain is equal to the difference between, on the one hand, the transfer price and, on the other hand, the product of the total acquisition price of the entire portfolio of digital assets and the product of the quotient of the transfer price and the total value of this portfolio: Gross capital gain or loss = Transfer price - [Total acquisition price x Transfer price / Total value of the portfolio].

¹⁰² See §730 of the BOI-BIC-CHAMP-60-50.

¹⁰³ Article 34 of the General Tax Code.

At present, pending a possible normative definition of NFTs, the unique nature of NFTs does not seem to justify, on its own, departing from the common law taxation regime for capital gains on the sale of digital assets provided for in Article 150 VH *bis* of the General Tax Code. This will apply even if, due to its rarity and originality, the NFT has certain characteristics of a collector's item or a work of art to which it is likely, in certain cases of use, to refer.

Indeed, if Article 150 VI of the General Tax Code (resulting from Act no. 2005-1720 of 30 December 2005), which introduced a flat-rate tax on precious objects (TFOP) on the sale of works of art and collectors' items, includes in the notion of works of art, under the terms of the commentary to the BOFIP¹⁰⁴, "audiovisual works of art on an analogue or digital medium, as well as the movable goods constituting the installation in which they are integrated when they are the subject of a global invoicing, provided that the print run of these works is controlled by the artist or their assigns and limited to a maximum of twelve copies, and that they are signed and numbered by the artist or, failing that, accompanied by a signed certificate of authenticity", taxed at 6.5% (6% flat-rate tax and 0.5% CRDS) of the sale price if the amount exceeds €5,000, the impossibility of assimilating the NFT to a work of art or to the support of a work of art (cf. *above*) does not seem to enable the application of this flat-rate tax, unless a particular effort is made to define and clarify it in the legislation.

Moreover, given the many uses of NFTs that are not limited to the art market, including in the field of culture, assimilating them to a collector's item or a work of art for the purpose of determining the applicable tax regime does not seem appropriate. Whereas assimilating NFTs to the digital assets defined by Article L.54-10-1 of the Monetary and Financial Code has the merit of clarity and effectiveness.

In the longer term, if the qualification proposed by the NFT report as intangible movable property were to be retained, the question would arise as to the application of the tax regime corresponding to transfers of movable property under Article 150UA of the General Tax Code. This subjects the capital gains realised on the transfer of an intangible movable asset to taxation at a rate of 36.2%, i.e. 19% of IR and 17.2% of social security contributions, with an abatement of 5% per year after two years, initially retained by the State Council for bitcoin.¹⁰⁵ Under this configuration, exchanges between NFTs and cryptocurrencies would be potentially subject to taxation. However, the applicability of this regime could be debated, given that it appeared to be unsuitable for the transfer of digital assets, in particular due to the large number and complexity of transactions likely to take place in a short period of time, leading to the creation of the framework adapted to taxation codified in Article 150 VH *bis* of the General Tax Code.

In terms of indirect taxation, in accordance with the provisions of Article 256(I) of the General Tax Code, supplies of goods and services made for consideration by a taxable person acting as such are subject to VAT.

A transaction falls within the scope of VAT if there is a direct link between the service rendered or the goods acquired and the consideration received. This means that it must be

¹⁰⁴ "RPPM - Capital gains on movable property and flat-rate tax on precious objects - Flat-rate tax on precious objects - Automatic application of the flat-rate tax" (<https://bofip.impots.gouv.fr/bofip/4151-PGP.html/identifiant%3DBOI-RPPM-PVBMC-20-10-20181231>)

¹⁰⁵ CE, 26 Apr. 2018, nos. [417809](#), [418030](#), [418031](#), [418032](#), and [418033](#), M. G. et a.

determined whether a transaction provides an individualised benefit to the client and whether the price received in return is related to the benefit thus obtained.

In the case of public offerings of tokens, if the tax authorities published a rescript¹⁰⁶ distinguishing between situations depending on the existence of a risk associated with the consideration¹⁰⁷, the existence of such a risk does not appear to be proven in the case of NFTs, insofar as the very purpose of NFTs is to provide the investor with title to rights over a digital file. The sale of NFTs is therefore a priori subject to VAT at the standard rate, as soon as they are produced, on the basis of their value at the time of production.

With regard to taxes applicable to NFT platforms, they are subject, like all companies, to corporation tax (IS). This is levied on the profits made by companies operating in France during a financial year, subject to the application of any international tax treaties, or on income tax (IR).

Ultimately, however, NFTs raise several questions about the taxation of the art market. They raise the more general question of the taxation of digital art.

Indeed, the definition of a work of art set out in Directive 2006/112/EC of 28 November 2006 on the common system of VAT and in Article 98 A of Annex III to the General Tax Code, which transposes it, does not seem to enable us to grasp at present the taxable object that would be constituted by the native works sold in NFT.

According to this article, works of art are subject to an ad hoc definition, distinct from that set out in Article L.112-2 of the Intellectual Property Code. Such as the following works:

- "1. Paintings, collages, and similar tableaux, paintings, and drawings, executed entirely by hand by the artist, excluding architectural, engineering, and other industrial, commercial, topographical, or similar drawings, hand-decorated manufactured articles, painted canvases for theatrical scenery, studio backdrops, or similar purposes;
2. Original engravings, prints, and lithographs printed in limited numbers directly in black or in colour, of one or more plates executed entirely by hand by the artist, irrespective of the technique or material used, with the exception of any mechanical or photomechanical process;
3. With the exception of articles of jewellery, goldsmiths' and silversmiths' wares, original productions of statuary or sculpture in any material provided the works are executed entirely by the artist; sculpture castings limited to eight copies and controlled by the artist or their assigns;
4. Hand-made tapestries and wall textiles, based on original designs provided by the artists, on condition that there are no more than eight copies of each;
5. Unique examples of ceramics, entirely executed and signed by the artist;
6. Enamels on copper, executed entirely by hand, up to a limit of eight numbered copies bearing the signature of the artist or the art studio, excluding articles of jewellery, goldsmiths', and silversmiths' wares;
7. Photographs taken by the artist, printed by them or under their supervision, signed and numbered, up to a limit of thirty copies, all formats and media combined.

¹⁰⁶ <https://bofip.impots.gouv.fr/bofip/11971-PGP.html/identifiant%3DBOI-RES-TVA-000054-20210309>

¹⁰⁷ "While the direct link may in particular be established in the context of the exchange of services, the uncertain nature of one of the reciprocal obligations is such as to break that direct link (Court of Justice of the European Union (CJEU), judgment of 29 October 2015, C-174/14, "Saudaçor", paragraph 32)." (Idem).

As the law currently stands, this very restrictive definition excludes NFTs, as well as digital works of art that are not, with some exceptions, "entirely hand-made by the artist", videos, and also digital reproductions of works of art that may fall under Article 98A of Annex III to the General Tax Code. This fixed fiscal definition of works of art does not therefore include all the artistic practices, particularly digital ones that are tending to spread in places of creation and exhibition.

The administrative doctrine confirms that works that are not handmade by the artist cannot be considered as works of art. In this sense, ministerial reply no. 2258 of 12 January 2021¹⁰⁸ confirms the exclusion of digital works from the qualification of works of art in tax matters.

However, this definition conditions the **applicability of the margin scheme** resulting from Articles 311 et seq. of the VAT Directive, of the **reduced VAT rate of 5.5% provided for by I of Article 278-0 bis of the General Tax Code**, which transposes Article 103 of the same Directive. It also applies to the **special deduction in favour of companies that purchase original works of living artists to exhibit them to the public** (Article 238 bis AB of the General Tax Code)¹⁰⁹, or to the **allowance on the benefit of young plastic artists** (Article 93-9 of the General Tax Code).¹¹⁰ This is to the extent that the doctrine refers to the definition of a work of art for VAT purposes. Digital works of art and their purchasers therefore do not currently benefit from these provisions, unless a restrictive exception is made.¹¹¹

If a change is desirable, it can only be considered within a European framework since the list of works of art defined in Article 98 A of Annex III to the General Tax Code is a reproduction of the provisions of Annex IX of Directive 2006/112/EC of 28 November 2006. Articles 103 and 311 et seq. of the Directive refer to the applicability of the margin scheme and the reduced VAT rate of 5.5%. As a result, as the legislation currently stands, it is not possible to change the list without first amending the Directive, *at least* as far as VAT is concerned. If an extension of other existing tax arrangements to NFTs or digital works could be considered, an in-depth assessment should first be carried out to identify the risks inherent in introducing variable geometry definitions to qualify works of art for different taxes.

The specific problems of patronage. Patronage is defined as "material support granted, without any direct counterpart on the part of the beneficiary, to a work or a person for the exercise of activities of general interest".¹¹² In concrete terms, patronage consists of making a donation, in cash or in kind, to an organisation of general interest for the purpose of carrying out its activities without expecting any equivalent consideration in return.

¹⁰⁸ Question No. 22584 by Mrs Annie Genevard (Les Républicains - Doubs) Question published in the Official Journal on: 03/09/2019 page: 7788. Answer published in the Official Journal on: 12/01/2021 page: 219

¹⁰⁹ <https://bofip.impots.gouv.fr/bofip/1801-PGP.html/identifiant=BOI-BIC-CHG-70-10-20210203>

¹¹⁰ <https://bofip.impots.gouv.fr/bofip/4799-PGP.html/identifiant=BOI-BNC-SECT-20-30-20121008>

¹¹¹ Indeed, there is a tolerance for the abatement on the benefit of young plastic artists ([§ 50 of the BOI-BNC-SECT-20-30](#)): "Creations of audiovisual works on analogue or digital media may also benefit from the abatement. This applies to the movable property that makes up the installation into which they are integrated if the whole constitutes a single and indivisible work. This is subject to the condition that:

- The print run of these works shall be controlled by the artist and limited to a maximum of twelve copies;
- These works are signed and numbered by the artist or, failing that, accompanied by a certificate of authenticity signed and numbered by the artist.

¹¹² Order of 6 January 1989 "relating to economic and financial terminology" (OG of 31 January 1989).

According to this definition, donating NFTs by public institutions in exchange for a sponsorship intended to finance the restoration of a work raises questions, in particular as to the possible valuation of this consideration in the form of an NFT.

On the other hand, the issue of cash donations of crypto-currencies or donations of NFTs in kind to public institutions raises unresolved questions. In particular for the latter case, there is the possibility for donors to benefit from the provisions of Articles 200 and 238 *bis* of the General Tax Code. Donations made in kind require a valuation for the purposes of calculating the tax reduction and possibly an extra-accounting reintegration, which is tricky if the goods are valued in crypto-currencies that are inherently volatile.

2. Financial or digital assets regulation

Under the impetus of the FATF's work, the PACTE Act, completed by the Order of 9 December 2020 strengthening the anti-money laundering and combating the financing of terrorism framework applicable to digital assets,¹¹³ requires digital asset service providers (DASPs) to register in order to carry out their activities and to comply with anti-money laundering and combating the financing of terrorism requirements. The PACTE Act also provided for an optional authorisation that digital asset service providers can apply for. The PACTE Act also introduced a number of investor protection measures. These include a ban on the use of advertising banners for canvassing purposes by unlicensed service providers and on token issuances that have not obtained optional AMF approval. In addition, the PACTE Act provides for an optional visa on the issuance of utility tokens under French law by allowing issuers to apply for an optional visa from the AMF prior to any public offering of tokens.

At the European level, work is underway to create a harmonised European regulatory framework on crypto-assets, with the draft MiCA regulation (*Regulation on Markets in Crypto-Assets*). This is intended to establish a comprehensive framework covering all crypto-assets that do not qualify as financial instruments. While it subjects issuers and service providers on crypto-assets to AML/CFT rules, the MiCA Regulation does not include a section on anti-money laundering and counter-terrorist financing (AML/CFT) rules applicable to crypto-assets. In parallel, this is being negotiated within the draft harmonisation of the EU AML/CFT framework, presented by the Commission to the Council and Parliament in July 2021, currently under negotiation in the Council.

NFTs are not subject to a specific regime, neither in the FATF standards, nor in French law or in the European law under discussion.

The update of the FATF guidelines on the risk-based approach to virtual assets and virtual asset service providers published in October 2021 does not specify whether NFTs should be classified as virtual assets or financial assets, but nevertheless includes them in the scope of the assets covered by the FATF standards. Thus, depending on their functions, some NFTs could be considered as virtual or financial assets, depending on whether they are used as a means of payment or investment.

¹¹³ Order no. 2020-1544 of 9 December 2020 enhancing the anti-money laundering and combating the financing of terrorism framework applicable to digital assets.

However, the risk of money laundering and terrorist financing associated with these new objects is great, especially in the field of art.

On the one hand, the main NFT sales platforms, such as OpenSea or Rarible, are *non-custodial*, i.e. they do not store NFTs on behalf of their users. They therefore do not carry out any identification or customer due diligence measures such as *KYC*, "Know Your Customer".

On the other hand, the anonymity offered by these new dematerialised assets through the use of crypto-assets, as well as their ease of creation and exchange, although traceable on a blockchain, are likely to favour money laundering and terrorist financing operations.

For example, in a report published in February 2022,¹¹⁴ the US Treasury detailed the money laundering and *washtrading* risks associated with these new types of tokens, despite the relatively small amounts involved compared to practices in other sectors.

At this stage, the wide variety of NFTs - artistic, financial, even industrial - makes a global approach very difficult. It does not enable a general regulation, but seems to justify a case-by-case approach, depending on the rights conferred by NFTs, possibly bringing them closer to digital assets or financial instruments registered on a blockchain such as *security tokens*.

At any rate, it seems necessary to recall that the mere non-fungibility of NFTs does not enable the qualification of digital assets for the application of financial or digital asset regulations. Even if there is no specific provision for NFTs in the Monetary and Financial Code, certain categories of NFTs can, as we have seen, be included in several of its provisions. Once they qualify as digital assets, NFTs are subject to the provisions of Article L.54-10-1 of the Monetary and Financial Code (CMF) created by the PACTE Act, and therefore to the regulations on digital assets, which implies a case-by-case approach by the regulator, and enhanced caution on the part of the players and project owners in the scope of the rights conferred by NFTs.

Finally, although negotiations on the Markets in Crypto-Assets (MiCA) legislation were still underway at the time of writing, it should be emphasised that excluding NFTs from the scope of this legislation would not mean that they would not be subject to anti-money laundering and anti-terrorist financing measures. In particular, they could be included in the ongoing negotiations on the new anti-money laundering package.

C. Actual socio-economic problems

Finally, NFTs are taking place in an uncertain socio-economic context, given the persistent questions surrounding the energy consumption of blockchains, security and consumer confidence in the system, and finally, the phenomenon of the speculative bubble that is currently being reduced.

¹¹⁴ "Study of the Facilitation of Money Laundering and Terror Finance Through the Trade in Works of Art" https://home.treasury.gov/system/files/136/Treasury_Study_WoA.pdf.

1. Environmental issues that remain partly unresolved

Today, the priority given to action to combat climate change is a particularly sensitive issue for the blockchain and web3 world. Indeed, the virtuous nature of the technological solutions proposed on the environmental level is undoubtedly a condition for making NFTs acceptable to the general public as well as to institutional players, who are concerned about their brand image and the respect of their commitments in terms of social and environmental responsibility.

As studied by France Stratégie in its report on the control of digital energy consumption¹¹⁵, **the energy consumption of a blockchain comes mainly from the "mining" operations enabling the validation of transactions carried out on a blockchain and their security, and therefore from the consensus protocols used.**

To understand the origin of this energy consumption, it is worth recalling that a blockchain is a chain of data blocks, in which each block contains several transactions between various actors.

The "*proof of work*" consensus system, currently used by blockchains such as Bitcoin and Ethereum, is a system in which a block is considered "legitimate" once a certain amount of "work" has been done to validate it, i.e. a certain amount of "computational energy" has been spent. For a new block of transactions to be accepted, it must first be "mined" by miners. The miners must use their computer's computing power to randomly find an arbitrary output code for solving an algorithm, enabling the transactions in the block to be validated and recorded. However, while this operation enables blockchains to be protected against attacks, it also leads to a certain amount of energy consumption.

The above-mentioned France Stratégie report concluded **in 2020, based on several different calculation methods, that the electricity consumption of Bitcoin mining (use phase alone) corresponds to an amount of several tens of TWh per year. This is equivalent to the electricity consumption of entire countries ranging from one to three times the electricity consumption of Denmark.** This is without counting the consumption of ancillary cooling equipment needed to avoid overheating of the computing equipment, as well as the grey energy related to the production of the devices.

Today, blockchains operating under proof-of-work models are being challenged by "*proof-of-stake*" systems. The latter does not rely on the computing power of users, but on the content of their wallet, which represents their "participation" in the crypto-currency. The higher one's participation, the more likely the user is to be designated by the system to validate the next block. Since it is not acceptable for the richest user to be systematically selected, several systems for weighting participation have been developed. These are based on the length of ownership, the number of transactions made, and the like. As a result, the only energy consumption required to operate proof-of-stake is for the operation of the network nodes, i.e. the computer servers that hold a copy of a blockchain.

The main blockchain initially used for NFT deployment, **an Ethereum blockchain is estimated to have an annual consumption of 74.6 TWh as of September 2021**,¹¹⁶ according

¹¹⁵ "Maîtriser la consommation énergétique du numérique", October 2020: <https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-2020-dt-empreinte-numerique-octobre.pdf>.

¹¹⁶ By comparison, in 2020, electricity consumption in Belgium was 79.9 TWh (Source: <https://www.febeg.be/fr/statistiques-electricite>).

to figures provided by ADAN, ¹¹⁷which is constantly increasing.¹¹⁸ Although Ethereum still operates on proof of work to date, the transition to proof of stake is underway. This is expected to be completed by the summer of 2022, after being delayed several times. Members of the Ethereum community believe that the blockchain will consume 99.95% less energy after this transition.

Other Ethereum-compatible blockchains based on proof of stake have emerged. For example, a Polygon blockchain claims to consume only 0.00079 TWh annually.

A French blockchain, Tezos that also uses proof of stake as a consensus protocol even estimates that its energy consumption is equivalent to 0.00006 TWh/year, which would make it one of the most energy-efficient networks in the ecosystem.

Although the security guarantee provided by "*proof of stake*" blockchains in comparison with "*proof of work*" blockchains is the subject of a controversy that does not seem to have been completely resolved to date, the fact remains that they retain all the properties of a blockchain, making it a particularly secure instrument.

Beyond the choice of consensus protocols used, other options can lead to reducing the energy footprint of a blockchain. These include locating servers and miners in countries that consume low-carbon electricity, recycling the heat produced by mining - the ambition of companies such as MintGreen or WiseMinting, or the methods of scheduling and carrying out transactions with the possibility of making grouped transactions to minimise the gas and mining costs associated with a sale.

In any case, the NFT ecosystem cannot today avoid having to think about the blockchains chosen and their environmental footprint, which is also a determining factor in the event the public authorities commit to implementing an ambitious policy in the sector.

2. Risks to the security and sustainability of the systems

Amongst other issues raised by NFTs, an important one is the security of platforms and users.

While a blockchain has properties that make it a particularly secure storage and exchange network, this does not mean that the buying and reselling activities of NFT are absolutely risk-free.

The primary risk identified today is not a legal one. It is based on the numerous scams that accompany any speculative phenomenon, from which NFTs are not exempt: scams, fraudulent operations, sale of "empty" NFTs, and wallet misappropriation.

Thus, wallet holders are often victims of account hacking attempts, against which insurance companies have so far refused any protection. A company such as Ledger has in fact developed a technological solution aimed at increasing the security of private wallet access keys, via a "*cold wallet*", however, such solutions are not a remedy for the fallibility of individuals.

¹¹⁷ "Blockchain protocols and their energy footprint", 29 September 2021 (<https://adan.eu/article/classification-protocoles-blockchain-empreinte-energetique#matic>).

¹¹⁸ Figures from the Digiconomist site indicate an annual consumption of 105 TWh in May 2022, which is equal to the consumption of Kazakhstan: <https://digiconomist.net/ethereum-energy-consumption>.

The second risk, inherent in any new technology, is that of the lack of sustainability of systems. Indeed, the NFT purchase and resale platforms condition part of the users' interactions with a blockchain. However, these platforms could eventually disappear.

Finally, blockchains themselves are growing rapidly. They are often subject to malfunctions, raising questions about their ability to tolerate the simultaneous presence of a large number of users at a constant technology.

3. Inadequate consumer protection

The classic approach of consumer law, aimed at protecting the average consumer, seems a priori counter-intuitive in view of the very libertarian culture of the web3 and of a blockchain. These are based on the principle of "DYOR" (*do your own research*), which makes buyers and sellers of NFTs assume responsibility. This requires them to do their own research, especially in the context of transactions that take place mainly between individuals.

Nonetheless, consumer protection seems to be an essential issue. This is from the point of view of protecting their economic interests, on the one hand, in a speculative context, but also with regard to the high risk of fraud and swindling on platforms. These are likely to take several forms, such as plagiarism, "washtrading" - a market manipulation that consists of buying and selling NFTs artificially to increase their value, "pump-and-dump" - several people buying an NFT to artificially increase demand, identity theft, phishing of all kinds, and more. Even if the risk of reputational sanctions is always high in networked communities, the applicability of consumer protection law and the possible establishment of liability for buy-and-sell platforms are major issues at a time when the market is seeking to expand to new, uninitiated audiences.

As such, a first question should be whether the buyers or vendors of NFTs are consumers, who are therefore protected by the Consumer Code. The introductory article of the Consumer Code defines a consumer according to two criteria: (i) the consumer must be an individual (ii) and must be acting for purposes that are not part of their commercial activity.¹¹⁹ The level of skills and expertise of the consumer, e.g. in blockchain or web3, is therefore not relevant to this definition. Conversely, a professional is defined as "any individual or legal entity, public or private, acting for purposes relating to their commercial, industrial, trade, professional or agricultural activity, including when acting in the name of or on behalf of another professional". The distinction between a professional and a consumer is based on the activity carried out on a principal basis.

In this respect, in a ruling of 21 October 2021, the Montpellier Court of Appeal¹²⁰ was asked to take a position on the status of a client of a crypto-currency platform. The Court considered the client to be a consumer, even though they had participated in the construction of blockchain bricks, and despite high earnings, which the Court did not consider to be of such a nature as to attest to the commercial nature of their activity.

¹¹⁹ "For the purposes of this code, the following definitions apply: 1. Consumer: any individual who acts for purposes that do not fall within the scope of their commercial, industrial, craftsman, self-employed, or agricultural activity."

¹²⁰ Montpellier Court of Appeal, 2nd Civil Chamber, 21 October 2021, no. 21/00224.

If one considers that platforms enable relations between consumers and professionals, then consumer law would apply. This includes all the rules relating to the contract for the provision of digital content or services, to which one could add the rules applicable to contracts concluded at a distance. These give rise to a right of withdrawal, except in the case provided for in Article L.121-8, 13 of the Consumer Code.¹²¹ If platforms were to be seen, as this report does not advocate, as organising only consumer-to-consumer relationships, other sets of rules would apply.

Consumer law also imposes a number of obligations on authors who wish to sell their works to individuals as NFTs without intermediation. The author is not only obliged to provide pre-contractual information, according to Art. L.111-1 et seq. of the Consumer Code, "fair, clear, and transparent" on the rights and obligations of consumers in civil and fiscal matters according to Art. L.111-7 of the Consumer Code, but also adequate and proportionate to the complexity of the goods marketed. This is a particularly demanding obligation given the complexity of the technical issues associated with NFTs such as blockchains, smart contracts, and the like.

In any event, the content of the general terms & conditions of use and sale of sales platforms must enable the nature of the platform's activity to be defined. It must enable a certain amount of fair pre-contractual information to be provided on the nature of the NFT acquired, the rights or lack of rights it confers, the content of the standard smart contracts used by the platform if it is itself deploying them in a blockchain, as well as the clauses attributing law or jurisdiction.

4. Increased risks in a declining speculative context

The reality of the NFT phenomenon undeniably changed between the start of the mission's work and the date of the report's submission.

Certainly, according to Chainalysis data, the total amount spent by collectors as of May 1st is already \$37 billion. This is almost as much as in the whole of last year in just four months. This is to the benefit of 950,000 unique addresses having bought or sold NFTs in Q1, compared to 627,000 in Q4 2021.¹²²

However, these figures must be put into perspective by the extent of *washtrading* and market manipulation. According to the quarterly study by the Nonfungible.com platform, verified transactions fell by 6% compared to the previous quarter, to \$7.8 billion, compared to \$8.3 billion in December 2021.¹²³ In terms of the number of sales, the market fell from 14.04 million in the fourth quarter of 2021 to a transaction volume of 7.44 million in the first quarter of 2022, a drop of 46.8%.

However, there are also some signals that could indicate a turnaround in the market. Thus, while it was acquired almost a year ago for the amount of \$2.9 million by Iranian investor Sina Estavi, Jack Dorsey's first tweet published on Twitter was auctioned on the secondary market via the OpenSea platform on 7 April, with a starting price of \$48 billion. After a week, the bidding for

¹²¹ "For digital content not supplied on a material medium, if the transfer has already begun and the consumer has expressly waived their right of withdrawal."

¹²² <https://blog.chainalysis.com/reports/chainalysis-web3-report-preview-JNFs/>

¹²³ <https://nonfungible.com/reports/2022/en/q1-quarterly-JNF-market-report>

this historical first tweet by Jack Dorsey had still not exceeded ETH 0.09 (\$280). In other words, a collapse of its price, albeit theoretical, of more than 99.99%.

While it does not call into question the interest of the use cases observed, the main risks of the current downward trend are the proliferation of disputes linked to disappointed users faced with the reality of the investments made, the disinterest of investors in a technology that remains promising in the long term, and lastly, the destabilisation of a dynamic ecosystem of start-ups that generates growth.

At the same time, changes in the monetary base and the increasing possibility of acquiring NFTs in euros, via direct conversion by the exchange platforms, could have a reverse effect, leading to a renewed attractiveness of NFTs for new consumers.

Hence, while NFTs are particularly full of potential for the cultural sector, they are not without risks and vulnerabilities for the authors and rights holders as well as for consumers. The challenge for the public authorities seems to be securing the use of this technology in order to encourage the most virtuous use cases that will persist beyond the speculative phenomenon observed over the last 18 months.

IV. Securing the system to take full advantage of this innovation in the cultural sector in line with the major cultural policy objectives

A. A number of clarifications could enable the ecosystem to be made more secure and the legal functioning of the NFT market to be improved, pending a definitive legal qualification by the lawmakers.

1. In the area of intellectual property: informing stakeholders, making platforms accountable, examining the establishment of third-party verifiers and the effectiveness of judicial decisions.

In the very short term, **simplified educational documentation on the copyright issues involved in purchasing and reselling NFTs**, as analysed in this report, **could be disseminated with a view towards informing purchasers, platforms, rights holders, and authors of the legal framework within which NFTs inevitably operate, and of the need to secure their practices by concluding contracts for the transfer or licensing of rights where appropriate.** Such information on the law applicable in France and the legal risks connected with infringing practices could prevent some future disputes and indirectly participate in the promotion of virtuous practices and actors.

In this respect, it might also be relevant to alert the authors to the technical fragility of the system for paying commissions via the smart contract. Today, this is centralised by the NFT exchange platforms due to the lack of implementing standards enabling full automation of the payment. This makes them dependent on the sustainability of the systems, and may have an impact on their remuneration.

Proposal no. 1: Disseminate simplified educational documentation on the copyrights involved in the issuance, purchase, and resale of NFTs, and on the technical functioning of a blockchain, with a view towards informing purchasers, platforms, right holders, and authors of the applicable law and the real technological possibilities that it enables.

In the medium term, given the numerous risks of intellectual property infringement and the difficulty for rights holders to combat such infringements, which sometimes occur on the scale of several million infringing images put online without their knowledge, to give their authorisation to the very many projects that would like to respect copyright for the creation of new NFTs. The most useful initiative seems to be the **drafting of a "charter of best practices" for the various intermediaries, including platforms, to ensure the legal security of operations**, such as compliance with the legal conditions of public order for the transfer of intellectual property rights, and to contribute to the prevention of counterfeiting, in conjunction with the representatives of the sector and the collective management organisations. Such an initiative should enable a certain amount of progress to be made given the state of current practices, benefiting both the public and private sectors.

The development of such a charter could also be an opportunity to encourage participants to develop more advanced standards enabling the automation of commission payments connected to smart contracts.

Proposal no. 2: Draw up a "charter of best practices" involving platforms, industry representatives, and collective management organisations.

Over the longer term, **European coordination** seems necessary, again possibly through a flexible legislative proposal. The mission proposes to retain the status of online content-sharing service provider in order to make platforms, mostly from outside Europe, aware of the obligations arising from this status.

Proposal no. 3: Develop a European charter to raise awareness among platforms of their obligations to prevent and combat copyright infringement.

Beyond the sole question of the platforms' role, a **more comprehensive reflection on setting up third-party verifiers could be accompanied and supported**, in order to develop control and prevention mechanisms for possible copyright infringements on the blockchain. Such a consideration could be undertaken with the technology and art market professionals already present on this market, such as auctioneers, third-party certification bodies specialising in the blockchain sector, and others.

Proposal no. 4: Support and initiate a discussion process on establishing third-party verifiers for the content associated with NFTs exchanged on a blockchain.

Finally, following on from the reflections initiated by this report, an approach could be made to professionals and operators on the subject of technical arrangements likely to strengthen the effectiveness of judicial decisions in order to effectively combat copyright infringement.

Proposal no. 5: Support and initiate discussions on the technical methods enabling the effectiveness of judicial decisions to combat copyright infringement.

2. On consumer protection: consumer awareness and fair information obligation by NFT platforms

In connection with the accountability of platforms mentioned, **disclosures** could be made about the **economic risks** associated with acquiring NFTs. In particular, this would be in the context of a possible market downturn likely to lead to an increase in fraud and market manipulation, **the rights that NFTs do or do not confer**, and the **minimum security precautions that consumers should take** when buying and reselling tokens.

These disclosures, mainly aimed at new market entrants unfamiliar with cryptocurrencies such as authors, collectors, and the like, could remedy the lack of transparency sometimes seen on certain platforms or during certain sales, often justified by the aforementioned "DYOR" principle.

In the medium term, the proposed charter of best national and European practices for safeguarding copyright could also be enhanced by considerations relating to the need for fair information for the public.

Proposal no. 6: Encourage the dissemination of information to the general public about the economic, financial, and legal risks associated with acquiring NFTs.

Proposal no. 7: Expand the proposed national and European Charter of Best Practices to include concerns about the need for fair information to the public.

3. Taxation and money laundering regulations

Taxation. At the present time, the tax regime applied to digital assets defined by Articles 150 VH *bis* and 200 C of the General Tax Code seems to be fully applicable to NFTs, whose similarity to the digital assets defined by Article L.54-10-1 of the Monetary and Financial Code is relevant for tax purposes. Confirming the inapplicability of the tax system for works of art and collectors' items, due to the impossibility of assimilating the NFT to a work of art, could, however, provide certainty for the tax practices of the players, without hindering possible future changes.

In the longer term, however, the NFT issue revives the debate on the taxation of digital art, which is frequently brought to the attention of the government by parliamentary enquiries.

Although a change in the list of works of art defined in Article 98 A of Annex III to the General Tax Code is advisable, it cannot be considered solely within a European framework since it is a repetition of the provisions of Council Directive 2006/112/EC of 28 November 2006 on the Community system of VAT. Under these circumstances, an amendment to this Directive could be considered over the longer term in this regard.

Proposal no. 8: Clarify the relevance to NFTs of the tax regime for digital assets defined by Articles 150 VH *bis* and 200 C of the General Tax Code.

Proposal no. 9: In the longer term, consider implementing a tax system adapted to digital art.

Financial regulation and the fight against money laundering. Here again, the current regime covering digital assets seems to be applicable to NFTs whose characteristics enable them to be assimilated with digital assets or financial instruments registered in blockchain (*security tokens*). As far as purely artistic NFTs are concerned, the current regulation of digital assets does not seem adequate.

While the mission does not recommend integrating NFTs into the MiCA regulation, due to the difficulty of viewing them as a classic crypto-asset when the regulator now seems to be adopting a case-by-case regulation that does not exempt NFTs and their issuers from any form of control. Nevertheless, market manipulation and financial risks associated with NFTs are likely to increase, while NFTs can now be used as a vehicle for money laundering and terrorist financing.

With this in mind, it might be appropriate, in the long term, to integrate NFTs into the ongoing European discussion on harmonising the European AML/CFT framework, supported by the European Commission, presented by the Commission to the Council and Parliament in July 2021 (3 regulations and 1 directive) and currently being negotiated in the Council.

Furthermore, the mission can only endorse the recommendations made by the US Treasury in its above-mentioned report on the need to train officials and improve information sharing, including, as far as we are concerned, at the European level.

Proposal no. 10: Include NFTs in the ongoing European deliberations on harmonising the European framework for combating money laundering and terrorist financing.

4. In the long term, a context favourable towards legislative developments enabling the legal existence of NFTs to be regulated

Although the question of the right time to legislate on such a recent innovation is never an easy one to answer, the mission believes that it would be premature to opt for a definitive legal qualification of NFTs enshrined in law.

Ultimately, however, the survival of the market and the continuation of cultural practices could lead to a definition of NFTs in the Intellectual Property Code, in the Monetary and Financial Code, through the integration of non-fungible tokens into the existing regulations, or even, possibly, through a change in the General Tax Code.

However, from the mission's point of view, these developments could only be considered together, once the market is sufficiently mature and stable to justify them.

Proposal no. 11: In the long term, if the need is still apparent, a legislative qualification of NFTs could be advisable, depending on their persistent use cases.

B. Successful innovations and projects in the French cultural and creative industries sector require an objectification of practices, a strengthened educational effort, and greater environmental leadership, as well as the support of an ambitious public policy

Beyond the legal clarifications considered essential to safeguard practices and enable the development of uses, the success of innovations and projects requires, *a fortiori* in a context of decreasing market profitability and speculation, the establishment of conditions favourable to their acceptance by the general public, in addition to an ambitious support policy. Better knowledge of the market, improved awareness of it, as well as making it more exemplary in environmental terms are thus essential prerequisites for the deployment of an enlightened and ambitious public policy towards web3.

1. Develop tools for collecting objective data

In the short term, as already proposed in the Barthalois¹²⁴ report in January 2022, market observation tools should be developed, both internationally and in France. This should be done in order to better understand the uses of NFTs, particularly in the cultural and creative industries sector. The profile of the authors involved in the ecosystem, the remuneration they receive, the works they market by this means, as well as the socio-cultural profile of collectors such as crypto-investors, enthusiasts, young people or otherwise, traditional collectors or otherwise, or the average size of their portfolios, are relatively unknown today, and are in any case not covered by any quantitative or objective data. The same applies to the phenomena of fraud, market manipulation, or hacking of *wallets*, accounts on platforms, and so forth, which are often poorly reported by the platforms and difficult to identify.

The existing tools, often developed by international websites, appear to be insufficiently specific to the cultural NFT sector, which covers, as has been said, a large number of extremely heterogeneous use cases. A greater clarification of the methodologies used also seems necessary, in order to facilitate the processing of the data and its consideration in the decision.

While this relative ambiguity can be explained in part by the totally globalised nature of the market and the anonymity of the players, the development of reliable technical and statistical tools would enable us to understand the economic and cultural issues associated with the phenomenon. They could contribute to its acceptability, whereas part of the mistrust observed today can be explained by a lack of knowledge of its uses. A European initiative could be considered in this respect with France's partner countries, together with the recommended framework for platforms that should also subject them to mandatory transparency.

Proposal no. 12: Support the development of indicators and tools enabling enhanced transparency on the NFT market, in particular in the wider art and culture sector, within a European framework.

At the same time, institutional work on the environmental footprint of blockchains could be updated in light of the new uses enabled by NFTs on the one hand, and the proliferation of blockchains operating through proof of stake protocols on the other.

Proposal no. 13: Encourage the updating of institutional work on the environmental footprint of blockchains, in the context of NFT development.

2. Develop public awareness and training on NFT and web3 topics in general

Along the same lines as improving the acceptability of NFTs, the development of an educational offer for training the public, collectors, and institutional players in the cultural sector in NFTs could be encouraged.

This is the ambition of the French players in the sector, united around the "NFT Factory", "a hybrid place between tech, business, and art, where the curious and professionals

¹²⁴ "Voluntary sales at public auction in the age of NFTs", note for the attention of members of the Conseil des ventes volontaires, January 2022.

can discover the NFT ecosystem through the organisation of events, conferences, and training courses".¹²⁵

Beyond these private efforts, it appears to the mission that the Ministry of Culture and the collective management organisations could develop or expand the training of their agents. In the case of the latter, for the authors they represent, this would be in order to enable an increase in technical and legal skills on these subjects, essential to the security of the initiatives and their success.

Proposal no. 14: Support initiatives for training in the NFT and the web3 for ministry staff, public institutions, collective management organisations, and the authors they represent.

3. Include the NFT ecosystem as part of France's environmental concerns

Given the importance of environmental issues for the general public and France's goal of carbon neutrality, the development of a new industry that consumes large amounts of energy and emits greenhouse gases seems inconceivable at the present time.

With this in mind, once their environmental impact is documented as accurately and transparently as possible, the players in the sector will have to comply with standard performance and energy efficiency requirements.

In addition, environmental exemplarity, once again documented, could be taken into account when the public authorities award financial support to innovative private web3 companies. However, this also applies in the perspective of a possible contract with service providers for the creation of NFTs associated with elements of the public domain patrimony. While the use of blockchains operating on proof of work protocols should a priori be avoided, unless it is necessary for documented security reasons, the sole use of blockchains operating on proof of stake protocols would not be sufficient. Thus, other aspects can also contribute to reducing energy consumption, such as the location of mining centres, reuse of energy consumed by the centres, implementation of possible compensation mechanisms, and so forth, to optimise the environmental footprint of NFTs.

Proposal no. 15: Take into account the environmental exemplarity of innovative NFT projects supported by the public authorities.

4. Support innovative projects in the web3 sector under the 4th Future Investment Programme

An investment tool endowed with €20 billion over 5 years (2021-2025), of which €11 billion is financed by France Relance and implemented over 2021-2022, the 4th programme of investments for the future (PIA 4) aims in particular to support the cultural and creative industries (CCI) sector.

Within the framework of the measures announced by the Ministry of Culture in September 2021, innovative web3 projects, if they present a strong potential for transforming the sector,

¹²⁵ "La NFT Factory, futur lieu de convergence du secteur à Paris", Le Monde, 22 March 2022.

technologically, in terms of use or organisation, and a potential for widespread use by other cultural players, could be co-financed. Some projects involving NFTs that meet these characteristics could thus be funded.

Looking further ahead, the stabilisation of the uses and market of NFTs should enable identifying virtuous projects, from a legal point of view by respecting copyright and consumer rights, economically by transparency and financial security, fiscal exemplarity, and environmentally, which could, subject to their conformity with the major cultural objectives of the Ministry, and therefore with the general interest, be the subject of ad hoc financial support arrangements.

Proposal no. 16: Support the most innovative NFT projects meeting the criteria of the 4th Future Investment Programme.

C. The involvement of public cultural institutions in the NFT market could take place according to several scenarios, with certain reservations

At the time of completing this report, no venture to create NFTs on public collections or works by public cultural institutions has materialised. However, there is considerable pressure on the sector, particularly on museums to become involved in web3. While the President of the Republic announced, in an interview given to the specialised media *The Big Whale*¹²⁶, that he was in favour of the development by the main public cultural establishments of "an NFT policy, for example through the promotion, dissemination, and protection of digital twins or variations of their physical collections" and wished to see the start of a collective discussion on "what would be a dematerialised museum of the history of France in this universe (...) digital historiography of our collective history", thus reviving the idea of a universal museum, in a virtual form.

1. Under these conditions, several scenarios for involving public cultural institutions are currently possible

The first possible scenario, which is based on a wait-and-see attitude, does not seem strategically viable in the short or medium term.

Given the particularly new nature of the NFT technology, one could legitimately consider that the implication of national and territorial public cultural establishments must be considered with the utmost caution, in that it would commit their image, as well as, albeit implicitly, the future of the brand and the cultural heritage for which they are responsible, particularly in the metaverse. In light of the significant uncertainties surrounding the future of NFTs and the "noise" generated by speculation on this market, coupled with the legal questions that this report has sought to document, this position seems to prevail in France at the time of writing.

However, in view of the legal principles mentioned above, the absence of a public initiative on the part of the government institutions cannot prevent the free creation of NFTs on works in the public collections of museums, *especially* if they are works that have fallen into the public domain within the meaning of intellectual property. In these circumstances, although the NFTs thus created do not enjoy the favourable signal provided by the brand of the museums

¹²⁶ "Innovation and risk-taking reflect the deep history of our country", *The Big Whale*, 24 April 2022.

concerned, NFTs are already being sold and marketed as unofficial digital twins of works in public collections, while NFTs are already being misidentified as museum NFTs when they are not. Nevertheless, although museums do not benefit from copyright on the works in their collections, unless the rights holder assigns it to them, they are nonetheless entitled to demand that their brand be respected.

Apart from the opportunity cost linked to the lack of revenue generated on a market that continues to be dynamic, which can be put into perspective, the main risk of such a stance is to overlook the strategic positioning of public cultural establishments in the metaverse, of which the early creation of NFTs intended to be exhibited in digital museums could constitute a first step.

On the other hand, a second option, which would consist of a massive investment in this technology and a sweeping creation of NFTs on public collections, seems to encounter significant limits.

On the one hand, it could seriously impair the brand image of museums, *especially* at a time when the market is experiencing downward trends, by conveying the impression of a late or uninformed investment in a technology that is very often perceived by the general public as purely speculative, or even a form of "privatisation" of culture, contrary to the policy of opening up data and providing broad access to works of art deployed by the institutions.

While the rules governing public ownership can accommodate the sale of limited-edition derivative products, it is not certain that the massive, rapid, and uncontrolled creation of NFTs on all of a museum's public collections falls within their statutory mission, given the random and speculative nature of the market.

Moreover, the technological context of NFTs that is subject to constant innovation, does not lend itself to the systematic creation of tokens on public collections. Whereas standards are still likely to evolve and the interoperability of platforms between them remains partly theoretical.

Finally, the widespread use of NFTs is highly dependent on the cryptocurrency market. We will probably have to wait to see whether these currencies become part of everyday life and whether their use is facilitated before we can witness a real revolution in public usage, although the growing possibility of payments in euros on the main platforms is starting to change. Under these conditions, making the NFTs a privileged tool for cultural democratisation while they are aimed at a public that is poorly identified and, in any case, sufficiently informed to be able to acquire them, could seem incoherent, while the needs of certain populations for access to culture are not completely satisfied today.

Consequently, the mission recommends that an intermediate scenario be adopted. This would be based on implementing progressive experiments, subject to a certain number of reservations as to their format.

An initial form of experimentation could be carried out by museums, in particular contemporary and modern art museums seeking to acquire NFTs to enrich their collections. The particular difficulty of this project lies in public institutions acquiring NFTs denominated in cryptocurrencies and recording them in public accounts.

A second type of experimentation, more commonly considered, concerns the creation of digital twins of public collections. It goes without saying that any experimentation project involving

works protected by copyright should, according to the principles mentioned above, be carried out with the authorisation of the rights holders.

Several options appear available under these conditions.

The first, which the mission considers the most secure and desirable, would be creating NFTs operated directly by the museums, or centrally by an entity such as the RMN-GP's photographic agency. This would give them complete freedom to choose the works, set the prices and sales methods, decide whether or not to resell them on the secondary market, choose a blockchain and the intermediaries used, and finally codify the smart contract.

However, in addition to the difficulty for a public entity, and a fortiori a public cultural institution, relating to the creation of a *wallet* and the handling of crypto-assets, this project could come up against two pitfalls. On the one hand, there is the significant economic risk of such an undertaking, and on the other, the difficulty of recruiting the skills necessary for such a project, particularly because of the tensions on the job market for specialised developers. In the very short term, the direct creation of NFTs by museums of public works is therefore difficult to imagine, although it could be the subject of longer-term reflection, particularly with a view towards developing a museum strategy in the metaverse.

The second option, therefore, is naturally to outsource the creation of NFTs from public cultural institutions to specialised intermediaries, for example in the form of a brand licensing agreement.

While this option would enable rapid deployment with the delivery of "turnkey" NFTs, possibly as early as 2022, it does present a number of legal uncertainties. These need to be clarified quickly, particularly with regard to the exclusivity of the brand licence that could be requested by the co-contractors, the terms of remuneration of the contract, and the museum's control over the process of creating the NFTs and its wallet. The compliance of intermediaries with whom public institutions are likely to contract regarding anti-money laundering and anti-terrorist financing rules, consumer law, and their environmental exemplarity must also condition the strategic choices that institutions may make.

Subject to these clarifications, the use of external service providers could be tested on a sufficiently large scale to draw conclusions without, however, committing all the collections of an institution or all the institutions simultaneously. In this respect, the mission can only hope that there will be greater coordination between the players, both national and regional public establishments, in order to strengthen their capacity for contractual negotiation and to ensure that the priorities of the public authorities are expressed with a single voice.

<p>Proposal no. 17: Encourage experimentation with NFT-related use cases by public institutions, both in terms of acquiring NFTs and producing NFTs associated with works in their public collections.</p>

2. Beyond the legal considerations proposed in this report, work on defining the framework for these experiments seems necessary

With a view towards developing NFT projects, there is currently a strong demand for clarification and methodology from the public cultural institutions. It concerns several key points identified by the mission during its consultations.

The first set of questions raised concerns a strategic and political issue, not a legal one, relating to the relevance of conducting an NFT development policy at the level of a museum or public cultural institution, and the coherence of such an approach with the other cultural policy objectives.

While the mission tends to respond favourably to this question and considers that developing NFTs should be part of the Ministry of Culture's digital strategy, subject to the legal security of the framework for deploying such a policy, it shares some of the legitimate doubts of the players interviewed, who might be encouraged to take the risk of experimenting with this policy by a clear signal from the political authorities in this regard.

The second part concerns the legal and strategic question of trademark license exclusivity that may be granted to players and the duration of exclusivity that may be contractually determined.

Two types of exclusivity are likely to be demanded by private intermediaries who would participate in this policy. On the one hand, there is the exclusivity of the museum's trademark license with one of the intermediaries for creating NFTs of these institutions, whoever they may be, and on the other hand, the exclusivity, sometimes demanded for very long periods or even indefinitely, of the granting of a trademark license for creating NFTs of a specific work, in compensation for the handing over to the museums of an extremely limited number of NFTs, which they would have to commit to not putting on sale.

While it is understandable that intermediaries are interested in protecting themselves from any form of competition and production of NFTs approved by the museum for a certain number of years, which determines the rarity and therefore the value of their products, the mission considers that such clauses may be difficult to accept for museums at this time. This is in view of the uncertainty surrounding the technical methods for deploying the metaverse and NFT standards in the years to come. These could lead the public institutions concerned to a form of dependence on intermediaries for deploying their digital twins in a metaverse, while the new standards or the operational conditions of this metaverse might not be compatible with the NFTs issued in 2022.

Finally, a third, more technical, set of questions concerns the control by public institutions of the process of creating NFTs on public heritage items and the full trust accorded to private partners for the holding and conservation of their portfolios. Admittedly, this solves the issue of a public entity owning crypto-currencies by enabling transactions in euros, but it also presents security risks and risks of permanence over time, whereas the cardinal principles of the web3 are based on each individual having ownership of the data concerning them. Beyond the question of the *wallet*, there is the issue of the transparency of the functioning of the partners' platforms, their interoperability, and the durability of the storage of files that they are able to guarantee.

On these different points, the elaboration of strategic orientations, developed with the actors and coordinated, seems necessary for deploying experiments that could be considered under serene conditions.

Proposal no. 18: Develop strategic guidelines, together with the stakeholders and coordinated, on the roll-out of a cultural policy for NFTs.

Providing institutions with a compendium of operational recommendations, such as a practical guide or guidelines, would enable them to provide a welcome framework for future experimentation with NFTs.

Proposal no. 19: Provide institutions with a collection of easily usable operational recommendations, such as practical guides or guidelines, to support them in future experiments.

D. In the longer term, the development of the metaverse presupposes the development of a genuine web3 strategy

As a backdrop to the mission, the development of the metaverse in the cultural field would benefit from specific work on culture, particularly from the point of view of copyright.

This work could culminate in initiating a long-term strategic reflection on the development priorities of the cultural and creative industries in the metaverse, including in particular an axis relating to the enhancement of the French cultural heritage in a virtual universal museum.

Proposal no. 20: Initiate a long-term reflection on the priorities for developing cultural and creative industries in the metaverse, including in particular a focus on promoting French cultural heritage in a virtual universal museum.

Summary of the proposals

Proposal no. 1: Disseminate simplified educational documentation on the copyrights involved in the issuance, purchase, and resale of NFTs, and on the technical functioning of a blockchain, with a view towards informing purchasers, platforms, right holders, and authors of the applicable law and the real technological possibilities that it enables.

Proposal no. 2: Draw up a "charter of best practices" involving platforms, industry representatives, and collective management organisations.

Proposal no. 3: Develop a European charter to raise awareness among platforms of their obligations to prevent and combat copyright infringement.

Proposal no. 4: Support and initiate a discussion process on establishing third-party verifiers for the content associated with NFTs exchanged on a blockchain.

Proposal no. 5: Support and initiate discussions on the technical methods enabling the effectiveness of judicial decisions to combat copyright infringement.

Proposal no. 6: Encourage the dissemination of information to the general public about the economic, financial, and legal risks associated with acquiring NFTs.

Proposal no. 7: Expand the proposed national and European Charter of Best Practices to include concerns about the need for fair information to the public.

Proposal no. 8: Clarify the relevance to NFTs of the tax regime for digital assets defined by Articles 150 VH *bis* and 200 C of the General Tax Code.

Proposal no. 9: In the longer term, consider implementing a tax system adapted to digital art.

Proposal no. 10: Include NFTs in the ongoing European deliberations on harmonising the European framework for combating money laundering and terrorist financing.

Proposal no. 11: In the long term, if the need is still apparent, a legislative qualification of NFTs could be advisable, depending on their persistent use cases.

Proposal no. 12: Support the development of indicators and tools enabling enhanced transparency on the NFT market, in particular in the wider art and culture sector, within a European framework.

Proposal no. 13: Encourage the updating of institutional work on the environmental footprint of blockchains, in the context of NFT development.

Proposal no. 14: Support initiatives for training in the NFT and the web3 for ministry staff, public institutions, collective management organisations, and the authors they represent.

Proposal no. 15: Take into account the environmental exemplarity of innovative NFT projects supported by the public authorities.

Proposal no. 16: Support the most innovative NFT projects meeting the criteria of the 4th Future Investment Programme.

Proposal no. 17: Encourage experimentation with NFT-related use cases by public institutions, both in terms of acquiring NFTs and producing NFTs associated with works in their public collections.

Proposal no. 18: Develop strategic guidelines, together with the stakeholders and coordinated, on the roll-out of a cultural policy for NFTs.

Proposal no. 19: Provide public cultural institutions with a collection of easily usable operational recommendations, such as practical guides or guidelines, to support them in future experiments.

Proposal no. 20: Initiate a long-term reflection on the priorities for developing cultural and creative industries in the metaverse, including in particular a focus on promoting French cultural heritage in a virtual universal museum.

Annex 1: Mission Statement



Higher Council of Literary
and Artistic Property
(CSPLA)

Paris, 2 November 2021

Me Jean Martin,

The Chairman

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<https://www.culture.gouv.fr/Sites-thematiques/Propriete-litteraire-et-artistique/Conseil-superieur-de-la-propriete-litteraire-et-artistique>

Dear Sir,

The *Non Fungible Token* (NFT), a new virtual object emerging a few years ago in the contemporary art sector, has experienced considerable growth over the last two years. It generated a market currently estimated at several hundred million euros in which various cultural actors including artists, auction houses, intermediary platforms, museums¹, and others are involved.

NFTs are non-fungible data files located on a *blockchain* designed to guarantee the authenticity of an original work or its reproduction and may even constitute the original work itself. Indeed, it can pertain to a single digital creation or constitute a tokenised version of pre-existing creations of any kind.

This phenomenon raises important and new questions from a legal point of view concerning both intellectual property and the technology used. These concern the originality of the work thus "tokenised", the ownership of the rights, and their management method. The application of this technology to public collections is characterised by their non-transferability, the financial framework to be recommended in order to control and limit the risks of speculation and money laundering, the applicable tax system, or even the traceability of the work and the applicability of the remuneration for private copying or the resale rights. The use of a smart contract system on the blockchain serves to manage resale rights and conditions, the risk of possible confusion with original works over time, and fraudulent reuse.

I would like to entrust you with the mission of providing an overview enabling the identification, analysis, and evaluation of this phenomenon in its multiple legal aspects, in the interest of the various actors concerned, and of its market.

To carry out this mission, you will be assisted by a rapporteur. You will also be able to obtain the support of the directorates of the Ministry of Culture, in particular the General Directorate for Artistic Creation, the General Directorate for Heritage and Architecture - in particular the

¹ For example, the Russian Hermitage Museum is offering in the form of NFTs Leonardo da Vinci's *Madonna Litta*, Vincent Van Gogh's *Lilacs*, as well as Claude Monet's *Garden Corner Montgeron*.

French Museums Service, the General Directorate for Media and Cultural Industries, as well as the General Secretariat, and you may proceed with interviews of the members of the CSPLA as well as of entities and personalities whose contributions you deem useful.

Ideally, your work should be presented by June 2022, after discussions held with the CSPLA members concerned.

Thank you for accepting this mission.

Yours sincerely.

Olivier Japiot

Annex 2: List of persons interviewed by the mission in alphabetical order

Society of Authors in the Graphic and Plastic Arts (ADAGP)

- Thierry Maillard, Legal Director

Association pour le commerce et les services en ligne (ACSEL)

- Eric Barbry, Director, representative to the CPSLA

Association for the Development of Digital Assets (ADAN)

- Faustine Fleuret, President and General Manager
- Hugo Bordet, Contributor

National Assembly

- Pierre Person, MP

Ariane

- Luc Jodet, co-founder

French Financial Markets Authority

- Charles Moussy, Head of Innovation and Digital Finance
- Clément Saudo, Deputy General Counsel

Bird&Bird

- Edouard Treppoz, of counsel and Professor of the University of Paris 1

Blockchain Partner via KPMG

- Stanislas Barthelemy, consultant

Bpifrance

- Ivan de Lastours, *Blockchain lead*

Cascade8

- Frédéric Fiore, Chairman
- Yannick Bossemeyer, General Manager

Circle of Economists

- Françoise Benhamou, Co-Chairman

Centre national d'art et de culture Georges-Pompidou

- Agnes Benayer, Head of Communications
- Claire de Cointet, Head of Publishing, Centre Pompidou
- Paul Mourey, Deputy Director of Digital

Centre National du Cinéma et de l'image animée (CNC)

- Magali Valente, Cinema Director
- Vincent Florant, Head of Digital

Christie's

- Julien Pradels, General Manager France

CNRS

- Primavera de Filippi, CNRS Research Fellow at the Center for Studies and Research in Administrative Sciences and Associate Researcher at the Berkman-Klein Center at Harvard University

Art Galleries Committee

- Gaëlle Saint-Pierre, Deputy General Delegate, in charge of legal and fiscal affairs
- Magda Danysz, gallery owner

National Digital Council

- Adrien Basdevant, lawyer

Voluntary Sales Council

- Henri Paul, Chairman
- Cyril Barthalois, member of the Conseil des ventes volontaires (CVV) and Secretary General of the Académie des beaux-arts

Ministry of Culture

- SNUM: Romain Delassus, Head of the Digital Service, Anne Laure Janeczek, Project Director for interconnected ticketing
- DGPA: Franck Isaia, Deputy Director of Museum Policy at the Museums of France Department of the General Directorate of Heritage and Architecture, at the central administration of the Ministry of Culture - Mrs Claire Chastanier, Deputy Director of Collections, Anne Dubile, Deputy Head of the National Museums Steering Office, in charge of forecasting
- DGCA: Ludovic Julié, in charge of the economics and forecasting mission for the visual arts
- SAJI: Sarah Jacquier, Advisor to the Head of the Legal and International Affairs Department for Platforms and Digital Law, Samuel Bonnaud-Le-Roux, Intellectual Property Office, Maider Igos, Project Officer, Intellectual Property Office, Sub-Directorate for Legal Affairs
- Mr Hervé Merlin, Deputy Director of Economic and Financial Affairs, Financial and General Affairs Department

The Cube

- Nils Aziosmanoff, Chairman

National Domaine of Chambord

- Cécilie de Saint Venant, Head of Communications, Branding, and Patronage
- Cécile Anger, Head of Branding and Patronage

- Eric Chaupitre, lawyer

La Diversité du Cinéma Français

- Sabine Tellier, Chairman
- Joël Girod, General Manager

Everrose

- Line Stambouli, Chairman
- Erwan Breuil, member of the Strategy Committee

Ministry of Economy and Finance

- Charles-Pierre Astolfi, Office of the Secretary of State for Digital Affairs
- Aurélien Hauser, Head of the banking, insurance, and regulated professions office (DGCCRF)
- Armel Castets, Head of the Savings and Financial Markets Office
- Rodolphe Baroukh, Deputy Head of the Savings and Financial Markets Office

French Federation of Blockchain Professionals

- Rémy Ozcan, Chairman
- Gaëlle Marraud des Grottes, General Secretary

FauveParis

- Lucie-Eleonore Riveron, CEO

Fisheye Magazine

- Benoît Baume, Chairman and Editorial Director

Gide

- Franck Guiader, lawyer
- Mathieu Lucchesi, lawyer

Art and Law Institute

- Blanche Sousi, Professor Emeritus of the University of Lyon 3, holder of the Jean Monnet Chair in European Banking and Monetary Law and Honorary Director of the Institute of Business Law and Economics

National Audiovisual Institute (INA)

- Jean-François Debarnot, Legal Director
- Barbara Flecheux Mutz, Head of the Legal and Regulatory Affairs Department;
- Deborah Münzer, Advisor to the Chairman for Institutional and External Relations
- Richard Parisot, Director of Data and Technology

National Geographic Institute

- Sébastien Soriano, General Manager
- Jeanne Strausz, General Secretary

Ministry of Justice

- Jean-François de Montgolfier, Director of Civil and Legal Affairs

Kalart

- Stanislas Mako, co-founder and CEO of uTip & Kalart

LAL Art

- Fanny Lakoubay, NFT project advisor, digital art curator

The Collection

- Jean-Sebastien Beaucamps, CEO

Legal Brain Avocats

- Matthieu Quiniou, Partner

Public Establishment of the Louvre Museum

- Kim Pham, General Manager

Museum of Crypto Art

- Benoît Couty, founder, lawyer

NFT Factory

- Romain Verlomme-Fried, auctioneer, co-founder
- Ingrid Méry-Haziot, lawyer

NonFungible.com

- Gauthier Zuppinger, co-founder, COO

Public institution of the Musée d'Orsay and the Musée de l'Orangerie

- Pierre-Emmanuel Lecerf, General Manager
- Virginie Donzeaud, Deputy General Manager

ORWL

- William O'Rorke, co-founder

Public Institution Paris Musées

- Anne-Sophie de Gasquet, General Manager

Pianity

- Kevin Primicero, co-founder CEO

Pictia

- Julie-Sara Marguet, co-founder, CEO

Réunion des musées nationaux - Grand Palais

- Emmanuel Marcovitch, General Manager
- Nathalie Blanc-Guelpa, Deputy General Manager
- Renaud de Marolles, Head of Legal Affairs

The Sandbox

- Sébastien Borget, co-founder, COO

Society of Authors, Composers, and Music Publishers (SACEM)

- David El Sayegh, Deputy General Manager
- Caroline Bonin, Head of Legal Affairs

Society of Dramatic Authors and Composers (SACD)

- Hubert Tilliet, Head of Legal Affairs and Audiovisual Contracts

Society of Authors of Visual Arts and Still Images (SAIF)

- Olivier Brillanceau, General Manager
- Agnès Defaux, Legal Officer

SGDL - French Writers' Association

- Maïa Bensimon, Legal Officer

SNE - French Publishers Association

- Julien Chouraqui, Head of Legal Affairs
- Arnaud Robert (Hachette Livre)
- Juliane Charbois (Editis)
- Benjamin Tancrede (Editis)

Public Establishment of the Château, Museum, and National Estate of Versailles

- Mr Paul Chaine, Deputy Head of Communications

Interview "Great Estates" organised with the ADAGP

- Picasso Administration (Claudia Andrieu)
- Marc Chagall Committee (Meret Meyer)
- Miro Estate (Me Hélène Dupin)
- Georges Mathieu Estate (Édouard Lombard)
- Yves Klein Archives (Dorothee Du jardin, accompanied by Jean-Jacques Neuer)
- Fondation Niki de Saint-Phalle (Me Philippe Zagury).
- ADAGP (Thierry Maillard)

Events

- Non Fungible Conference, Lisbon, 4&5 April 2022