

THE LEGAL CHALLENGES OF PROPTech

(IV) FROM PAPER TO DIGITAL TRANSACTION THROUGH THE USE OF ELECTRONIC SIGNATURES OR ARCHIVING?

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*The term **PropTech** (a contraction of "Property" and "Technology") refers to the use of technology and digital solutions in the real estate sector, at all stages of the value chain, from construction to asset management and real estate portfolio management, including transactions occurring in the market to sell or lease properties (or even potential funding rounds).*

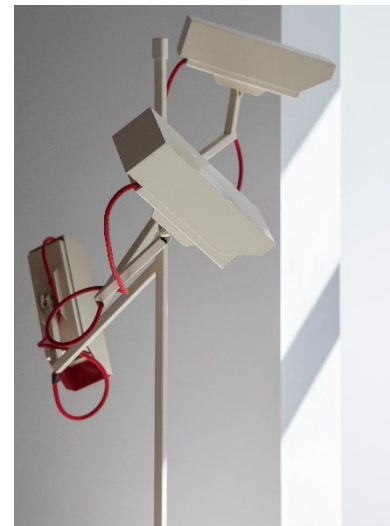
As in other fields (healthcare, law, insurance, etc.), established players in property management and asset management, as well as numerous startups, have recognized the benefits of leveraging constantly evolving technologies to automate existing processes or provide new services to all stakeholders, particularly end-users.

Examples include 3D printing and virtual (or augmented) reality at the construction stage, property valuation through artificial intelligence (AI) tools, online sales or rental listing platforms, and even "smart" management of real estate portfolios based on the Internet of Things (IoT) or collaborative tools aimed at maximizing the utilization of coworking spaces or parking facilities.

Lime provides you with an analysis of the main legal challenges of PropTech, with the fourth section dedicated to the digitization of procedures through electronic signatures or electronic archiving¹.

Digital technology enables the digitization of procedures by replacing handwritten signatures and paper exchanges with documents generated in electronic format, possibly secured with electronic signatures and stored by electronic means. In the real estate sector, as in others, the benefits are numerous, particularly in terms of speed, efficiency, cost reduction, and improved customer experience. Applications and platforms are also available to automate these processes and transition to a fully digital (or nearly fully digital) approach. They facilitate the creation of quotes, the conclusion of contracts (including for credit purposes) and the management of document exchanges with clients or suppliers.

From a legal perspective, this digitization process is not without risks: it is essential to ensure that the methods used in the digital environment (such as electronic signatures, for example) will have the same legal effect as their counterparts in the paper environment (such as handwritten signatures, for example). This note examines the main issues to consider for signing electronic documents and archiving them in compliance with the applicable legal framework.



¹ For the previous sections, dedicated (I) to the valuation of data in compliance with the GDPR, (II) to artificial intelligence and (III) to the digitalization and ecological transition in the Real Estate Sector, see. <https://www.lime.law/en/latest-thinking/les-enjeux-juridiques-des-proptech>.

1. Challenges of Digitization in the Real Estate Sector

➤ From Paper to Electronic

With the growing development of digital technology, many sectors are increasingly using available technologies to digitize all or part of their procedures, transitioning from "paper" to "electronic." The traditional paper medium is replaced by documents in PDF format sent via email; handwritten signatures on contracts become electronic (scanned signatures or electronic signatures created using Belgian electronic ID cards, for example); registered mail also becomes electronic, as do timestamping and archiving, since many documents now exist solely in electronic format or are the result of digitization processes.

The real estate sector is affected in several ways.

Many contracts could indeed be established, signed, and archived entirely by electronic means between involved parties, acting whether in a professional or private capacity (sellers, buyers, real estate developers, banks, notaries, real estate agents, etc.). This could apply to sales, rentals/leases, construction contracts, or credit agreements.

Particular attention must be paid to the potential requirement of a notary at certain stages of the real estate transaction, for example, to record the sales contract of a property in the mortgage registry (reporting formalism) or to create a mortgage (solemn formalism).

➤ Advantages and Risks of Digitization

The use of electronic tools in the digitization of procedures offers numerous benefits: faster and more seamless exchanges; more efficient, even automated (thanks to AI), management of documents and the data they contain; data accessible 24/7, secure, and traceable; savings in physical travel (for in-person signatures) or transmission of documents via postal services; cost reduction and some environmental impacts; improved customer experience, as clients can more easily and quickly access documents, among others.

However, relying on digital processes is not without risks. While ensuring that there are no legal obstacles to using such electronic procedures, **it is essential to guarantee that, in case of a dispute, the involved parties (or one of them, if applicable) will benefit from a legal security level at least equivalent to that which would have applied if the contract had been signed by hand and stored in paper format in the archives of the real estate intermediary or contractor.** Some may fear that the electronic signature used by parties might be deemed inadmissible by a court or lack the intended legal effects (with a subsequent challenge to the proof or even the validity of the contract). Similarly, when a paper contract is destroyed after digitization, serious consequences could arise if the electronic version ultimately retained does not have the same legal effects as the original "paper" document.

2. What are the Requirements to Sign an Electronic Document in Compliance with the Legal Framework?

Electronic signatures, like other trust services, are primarily governed by the eIDAS Regulation², as

² Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC, OJ L 257 of 28 August 2014.

amended in 2024³. It is also necessary to consider certain overarching rules outlined in the Belgian Civil Code⁴ or the Belgian Code of Economic Law⁵, or, where applicable, specific sectoral regulations (such as those in the field of credit, for example).

➤ **Qualified and Non-Qualified Service Providers and Services**

Under the eIDAS Regulation, a fundamental distinction is made between qualified and non-qualified providers and services.

Qualified trust service providers and qualified services are subject to very strict (and typically costly to implement) requirements on technical, legal and organizational levels. They also require prior authorization from the relevant public authorities (in Belgium, the FPS Economy). At the same time, they offer a very high level of legal security to the parties involved.

In Belgium, the list of qualified providers and services is available on the FPS Economy's website⁶. At the European level, a trust list of qualified providers is published by the European Commission⁷.

The eIDAS Regulation identifies three categories of electronic signatures:

- (Simple) electronic signature,
- Advanced electronic signature and
- Qualified electronic signature

➤ **On Which Basis Should One Choose a Qualified or a Non-Qualified Signature?**

Only the qualified electronic signature is automatically considered as equivalent to a handwritten signature⁸. More precisely, its legal effects are deemed to be equivalent to those of a handwritten signature. Like other qualified services, it also benefits from international recognition within other member States of the European Union. In Belgium, the electronic signature created by the electronic identity card should normally be considered as a qualified electronic signature.

Other forms of electronic signatures (simple or advanced) offer a lower level of legal certainty, such as DocuSign signatures, scanned signatures, or even a simple name appended at the bottom of a message. The eIDAS Regulation recognizes the principle of non-discrimination for these signatures, meaning that their legal effect and admissibility as evidence in court cannot be refused solely on the basis that the signature is not qualified or is electronic⁹.

When determining whether the method is deemed equivalent to a handwritten signature and can therefore produce the same legal effects, the party relying on the signature must demonstrate that the expected functions of a signature have been achieved. Under Belgian law, it must be established that the method allows the identification of the signatory and his/her agreement to the content of the act¹⁰. With well-designed mechanisms, which could be considered advanced signatures, this should not pose an issue. For simpler solutions that are easier to falsify (such as scanned signatures), the identification function could be contested, and consequently, the legal effect of the process could be undermined.

➤ **Risk Management**

In practice, the question arises whether to opt for a qualified electronic signature, much more expensive,

³ Regulation (EU) 2024/1183 of the European Parliament and of the Council of 11 April 2024 amending Regulation (EU) No 910/2014 as regards establishing the European Digital Identity Framework, OJ L 2024/1183 of 30 April 2024.

⁴ See, in particular, the rules regarding evidence (Book 8).

⁵ Art. XII.15 et XII.16, as well as Art XII.25 and fol. of the Code.

⁶ <https://economie.fgov.be/fr/themes/line/commerce-electronique/signature-electronique-et> (visited on 17.07.25).

⁷ <https://eidas.ec.europa.eu/efda/trust-services/browse/eidas/tls> (visited on 17.07.25).

⁸ Art. 25, (2) of the eIDAS Regulation.

⁹ Art. 25 (1) of the eIDAS Regulation.

¹⁰ See the definition of a signature in Article 8.1, 2°, of the Belgian Civil Code.

or a non-qualified one (simple or advanced). A case-by-case analysis should be conducted by the company operating in the real estate sector, based on the risk associated with the operation. Several factors can be considered, such as the quality of the individual against whom proof must be provided (knowing that proof is free against traders), the potential penalty in case of non-compliance with the formal requirement (which can be very severe in the case of credit transactions, for example), or the amount at stake.

3. What are the requirements to Archive Electronic Documents in compliance with the Legal Framework?

With the increasing number of documents created initially in electronic format and the scanning of paper documents, consumers, businesses and public authorities must be able to retain these in electronic form, ensuring that in case of a dispute, the production of electronic archives will have the same legal effects as that of paper documents.

➤ New Regulatory Framework

In the eIDAS Regulation adopted in 2014, electronic archiving was not subject to specific rules as a trust service. However, the Belgian legislator stepped in by establishing a specific framework in this area, relying on the template of other trust services outlined in the eIDAS Regulation¹¹. An interesting option was also introduced, allowing a public sector organization or an individual or legal entity to operate a qualified archiving service for its own use, subject to fewer obligations.

From now on, **electronic archiving is governed by the eIDAS Regulation (as amended in 2024)**; therefore, the provisions of the Belgian Code of Economic Law will need to be amended.

➤ On Which Basis Should One Choose Qualified or Non-Qualified Archiving?

A distinction is made between qualified electronic archiving, which is subject to strict requirements, and non-qualified electronic archiving. The legal certainty level is higher for qualified services: in addition to international recognition across all EU member States, data and electronic documents preserved through a qualified service benefit from a presumption of their integrity and origin for the duration of the preservation period by the qualified provider¹². In terms of evidence, it is therefore more effective to rely on qualified electronic archiving.

For non-qualified services, the principle of non-discrimination is consecrated by the eIDAS Regulation. It means that *“electronic data and electronic documents preserved using an electronic archiving service shall not be denied legal effect or admissibility as evidence in legal proceedings on the sole ground that they are in electronic form or that they are not preserved using a qualified electronic archiving service”*¹³. This implies that in case of dispute or contestation, the party relying on the archive must demonstrate that the essential functions of electronic archiving — durability, readability, integrity, confidentiality, and proof of origin — have been maintained throughout the retention period. Therefore, the risk is higher.

➤ Risk Management

As with electronic signatures, several factors can be considered, based on the specific circumstances of the case, to decide whether to use qualified or non-qualified archiving. For example, factors such as the duration of the retention period (which may be legally defined or, in the absence of such, referenced to the statute of limitations) and the potential sanctions that could be imposed in case of a violation of this requirement should be taken into account.

¹¹ Art. XII.27 and fol. of Belgian Code of Economic Law.

¹² Art. 45 *decies* (2) of the eIDAS Regulation.

¹³ Art. 45 *decies* (1) of the eIDAS Regulation.

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