Personal data protection and Land Registration:
From local provisions to a Global Perspective

1. Introduction

The protection of personal data is a topic of paramount importance within the field of land registration, particularly in systems that adhere to a principle of full publicity. Across Member States, we observe highly divergent approaches to addressing the issue of personal data protection: these range from more restrictive policies to the open and public display of registration data, information, and deeds/contracts/acts.

This study will first analyse a local case—the Trentino's Land Registry procedure, where a full constitutive principle for land registration is in force—and subsequently provide a brief international overview of how personal data protection is applied globally.

2. The processing of personal data in Trentino's Land Registry procedure

The protection of natural persons in relation to the processing of personal data is a fundamental right (article 8 of the Charter of Fundamental Rights of the European Union and Article 16 of the Treaty on the Functioning of the European Union).

Consequently, one of the key challenges within the digitalisation of Trentino's Land Registry was ensuring that the procedure aligns with this fundamental right.

In compliance with Articles 6 and 9 of the GDPR (Regulation 2016/679), access to information is granted only in **redacted** form, excluding personal data.

Specifically, under Article 6(1)(e) and Article 9(2)(g) of the GDPR, personal data processing in the Land Registry context is carried out for **purposes of real estate registration**, as provided for by the Trentino's Land Registry Law, and for reasons of substantial public interest, also in accordance with art. 2 sexies, comma 2, lett. c) of the Italian Legislative Decree n. 196/2003 (Italian privacy Code).

A particularly relevant feature of the Trentino's system is that pursuant to Article 7 of the Land Registry Law, all LR documents are publicly accessible, either at the office desk or online, without the need for special authorisation.

The Land Registrar is assigned the role "**authorised for the processing**" therefore he/she is entitled to examine all the documents with the aim of detecting any personal data. If, upon review, the Land Registrars identify personal data within a document, they are required

to create a certified redacted copy. The safest approach involves printing the document, removing the personal data manually, then scanning and uploading to the digital folder the redacted version, along with a certificate of authenticity.

Only the redacted version is made accessible and the original document, marked with the letter “S” for sensitive, remains visible just to the Office Director.

Two different means are provided to obtain a LR copy, when a party asks for a copy of a land registry document:

- online from the web portal Openkat
- at the office desk [or via email].

The fundamental step is to identify the requesting party. In both cases, every request is tracked: at the office desk, the consumer has to fill a form where to indicate his identification data; online, the parties access the web portal by authenticating username and password.

Subsequently, a privacy policy is provided for every copy of LR documents and every excerpt requested by a user.

The real challenge lies in assessing what is "necessary for reasons of substantial public interest" and what is "proportionate to the aim pursued." In fully public Land Registry systems like the Trentino’s one, the key balancing point concerns the principle of proportionality and the justification for data processing.

In this context, the insightful questionnaire developed by our colleague Claude Sapiano mapped the level of openness across Member States in relation to the publicity principle.

The results clearly indicate that some Member States (e.g. Italy, Austria, Bulgaria, Portugal, Romania) fully uphold the publicity principle. In contrast, other countries impose restrictions (e.g. Croatia, Estonia, Poland, Spain, Lithuania), where access to Land Registry information may be limited to judicial authorities, notaries, or cases where a legitimate interest is demonstrated.

Building on these findings, a broader and international overview is now provided.

3. International overview

Especially in light of the rapid expansion and growing influence of AI technologies, a global approach is essential, nowadays.

Rooted in a robust and historically grounded legal tradition, the European Union has established one of the most comprehensive frameworks for the protection of personal data. This

reflects a broader commitment to the protection of fundamental rights.

Conversely, in the United States no comprehensive federal privacy law has been enacted, nor is one expected in the near future. The U.S. Privacy Act of 1974, notably, does not extend to Land Registry matters. Instead, privacy legislation in the U.S. is composed by a fragmented group of federal, state, and local provisions. Worth mentioning is the Wisconsin Act that introduces mechanisms to shield the personal information of judicial officers from public access. Under this act, any public-facing real estate database must implement a procedure allowing judicial officers and their immediate family members to remove their names from both display and search functionalities.

In South America, Colombia presents a notable case. With an advanced digitalisation strategy — including blockchain technologies - Columbia expressly recognizes two fundamental personal data rights under Articles 15 and 20 of its Constitution: (1) the right to privacy and (2) the right to data rectification. The Brazilian privacy law (laid down in 2020) also covers the land registry field and limits the access to personal data. This legislation aligns closely with the principles of the GDPR. In Argentina, the privacy law has been applied since 2000. That law follows international standards and has been deemed to grant appropriate protection by the European Commission.

From an Asian perspective, we observe a different regulatory landscape. China enforces a heavy regulation for the protection of personal data, likely driven more by reasons of strong control over land and property data. The main act is the PIPL, issued in 2021. Access to land registry data is limited, only public authorities are allowed to fully display them. More generally, other systems such as South Korea or Singapore provide heavy regulation. India should also be mentioned, where the Digital Personal Data Protection Act has been in force since 2023, applying also to land registry data, which is widely available online.

In Australia, the personal data protection is governed by both federal and state legislation. At a federal level, in 1988 Australia adopted the Privacy Act, recently amended in 2024. This package of measures offers a robust legal framework for the protection of personal data.

Finally, a brief word on Africa. While many African states currently maintain limited or moderate data protection regimes, this region deserves increasing international attention — not least due to the growing involvement of organisations such as the World Bank in supporting land administration reforms. In various parts of the continent, new digital Land Registry

systems are being developed, and this presents a unique opportunity to incorporate data protection principles from the outset.

4. Personal data - open data vs. public data - high value-datasets - AI

Even from a global perspective, the processing of personal data is governed by moderate to strong regulatory frameworks in most jurisdictions.

Nowadays, discussions on data protection must extend beyond traditional legal parameters. Increasingly, this field is influenced by a range of interrelated factors — notably the dissemination of open data, the classification of high-value datasets, and the transformative impact of AI technologies.

What constitutes open data? **Open data** means that the information is available for everyone to access, use and share. It is generally published by governments on freely accessible portals. Open data is:

- Structured, machine-readable, and well-maintained
- Usually accompanied by an open license
- Easier to understand, access, and consume.

It is important to distinguish open data from **public data** that simply means any data that is in the public domain. Public data refers to documents that can only be accessed with a freedom of information request, as well as data that isn't in machine readable format.

Public data is a broader category for various formats and sizes, including raw data. Therefore, open data is a subset of public data.

In the European Union, this field is governed by the OPEN DATA Directive 2019/1024 which, in Article 2, establishes the definition of open data:

"*… (13) 'machine-readable format' means a file format structured so that software applications can easily identify, recognise and extract specific data, including individual statements of fact, and their internal structure.*

(14) 'open format' means a file format that is platform-independent and made available to the public without any restriction that impedes the re-use of documents; "

The same Directive introduces the notion of high-value datasets (art. 13 and followings) and also governs the re-use of existing documents held by public sector bodies (articles from 4 to 10).

High-value datasets are expressly listed in Annex I:

1. Geospatial
2. Earth observation and environment
3. Meteorological
4. Statistics
5. Companies and company ownership
6. Mobility.

It's important to highlight that LR data may be considered high-value datasets and, consequently, governed by the OPEN DATA Directive.

According to the Directive, 'high value' means data with the potential to:

- generate significant socio-economic or environmental benefits and innovative services.
- benefit a high number of users, in particular small to medium sized enterprises (SMEs).
- assist in generating revenues; and
- be combined with other datasets.

In this view, transaction information might comply with these requirements, in particular data referred, for instance, to the number of transactions or the price.

In this sense, the recent report of the European Commission related to the Open Data Directive (COM 2023 703 final - Brussels, 14.11.2023) has expressly mentioned land registry data as one of the objects of the re-use right laid down by that Directive.

The processing of personal data requires specific **precautionary measures**, particularly when **artificial intelligence (AI)** technologies are involved. The recently adopted **AI Act — Regulation (EU) 2024/1689** — addresses the interconnection between AI systems and personal data, explicitly. The Regulation places a strong focus on **high-risk AI systems**, for which detailed requirements and safeguards are established.

In particular, Article 10 of the AI Act set out provisions that are directly linked to the protection of personal data. It requires that the datasets used for training, validation, and testing of AI systems must, specifically, comply with the rules and principles of the GDPR, particularly with regard to data minimisation and fairness. Furthermore, Article 59 of the AI Act introduces additional safeguards for the development and testing of AI systems within regulatory sandboxes.

The current landscape is diverse, complex, and rapidly evolving. It requires not only a deep understanding of legal principles but also strong technical expertise. Crucially, this

evolving framework affects all domains of public administration — including, of course, the field of land registration.

The central challenge we now face is how to balance multiple principles:

- On one hand, transparency, publicity, open data, and re-use principles, which are essential for reliability and legal certainty.
- On the other hand, the ever relevant and constitutionally protected principle of personal data protection, which must not be overlooked.

This balancing act is not theoretical — it has practical consequences in our daily operations.

5. Case studies

Given this legal - technical- international framework in which we operate, this study proposes 3 case studies: 2 examples from Trentino's Land Registry system; and 1 case based on the Dutch experience.

The first case concerns a judicial decision presented as a title for a Land Registry application. The ruling confirms the legal gender transition of an individual — from male to female — and the application requests the corresponding modification of the name in the B folio. There is no doubt that this case involves special categories of personal data, as defined under Article 9 of the GDPR, namely data concerning an individual's gender identity and health-related matters.

In this situation, the Trentino's Land Registry office took a precautionary approach: the document has been fully redacted, making visible only the case number and the final judgment, limited to the registry office updates related to the new legal identity. However, this raises a critical question about the **historical excerpt.** Even when the current title is redacted, the historical record still reveals the transition, as the name change can be reconstructed by consulting previous inscriptions. This scenario necessitates serious consideration of applying any form of access restriction **retrospectively**.

The second case relates to a growing number of requests for information or certification submitted by individuals who wish to know who has consulted or obtained copies of Land Registry excerpts or titles related to their property.

In essence, these individuals are asking to access the access logs of the Land Registry system, seeking to identify the names of the persons or entities who requested information on

their immovable assets. In Trentino's experience, such requests are typically rejected, as the applicants fail to demonstrate a legitimate interest. In most cases, the request is based just on personal curiosity or suspicion.

This scenario raises an interesting legal and procedural question: should access to access logs — which themselves may contain personal data — be granted, and if so, under what conditions?

The third and final example comes from the Netherlands, illustrating the complexity and sensitivity of regulating access to Land Registry data — particularly when it involves search functionalities based on personal names.

Although the relevant legislation had not yet been formally adopted, the competent Minister proposed a restriction on the "search by name" function. The proposal involved categorising users into 4 distinct groups.

This classification system was implemented despite an explicit warning from the Netherlands Cadaster. Subsequently, a professional user challenged this limitation in Court. The Court ruled in favour of the claimant, and the decision went against the Cadaster, reinforcing the principle of transparency.

Consequently, the Cadaster reintroduced a full search by name and the Minister withdrew the legislative proposal.

This case clearly illustrates how the functionality of search systems — especially those involving personal identifiers — remains a highly contested issue, with implications for

- data protection and privacy.
- equal access to public information.
- the operational integrity of Land Registries.

6. Conclusions

Several reflections arise from the case studies just explored. What clearly emerges is a general trend towards greater awareness regarding personal data rights. This growing attention to privacy translates into increased responsibility for those of us who manage and process such data, like Land Registrars.

At the same time, this part of our work is becoming increasingly complex. On one side, we live in a social context deeply influenced by social media, where there is a widespread tendency to voluntarily disclose even the most private aspects of personal life.

On the other side, data protection regulations are becoming more restrictive, and rightly so — in order to respond to the risks posed by uncontrolled data circulation.

What is increasingly surprising is the circulation of fake news. At times, it seems that society is divided between “haters” and “followers”, both reacting more to perceptions than to verified facts.

As Land Registrars, we are entrusted with upholding the principle of public faith, and in that role, “fake news” represents one of the things that scares us most. Misinformation — especially when it concerns property rights, legal documents, or public access to data — can seriously undermine public trust in institutions. And what is the most powerful medicine to misinformation, including in the Land Registry domain?

The answer is simple: **data quality**.

The increasing pressure from new technologies, the drive for open data, and the integration of AI tools must not result in any degradation of the quality, reliability, or legal certainty of our Land registrations.

Quality means:

- Accuracy in procedures,
- Sufficient time to make well-founded decisions,
- ongoing training and professional development to maintain and enhance our expertise.

In short, as we navigate this evolving environment, our commitment must remain intact: preserve legal certainty, protect personal data, and ensure that trust in land registration procedures remains unaffected— even in the digital age.

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