

MEET ELRA'S LAND REGISTRY ASSOCIATIONS

Interview with Cadastre, Land Registry And Mapping Agency *Kadaster*



Responsibilities •••••

2. What are the main responsibilities of your organization within your country's land registry system?



The **core responsibilities** of Kadaster include the **registration of immovable property, ships, aircrafts** and **the rights in rem concerned**, as well as **handling the survey and measurement of newly formed boundaries**.

Kadaster ensures that **deeds** and other legal instruments relating to property rights **are accurately recorded in the public registers and the key register is updated accordingly**.

We update and manage the **cadastral map**, which reflects cadastral boundaries and parcel information, all being part of the key register Kadaster.

For all of these tasks, **the registrar is the responsible administrative authority**, who, in the most extreme case, must also account for their actions before a court of law.



Jacques Vos & Doris Smudde, Land Registers of Kadaster (The Netherlands) at the 3rd ELRN Workshop in Barcelona, 30 October 2025

••••• The organization

1. When was your organization set up?

Although the public registers originated in 1811, the organization of Kadaster was established in 1832 as part of a nationwide effort to create a uniform and reliable land registry and cadastral mapping system.

Since then, it has evolved into a modern organization that combines **land registration**, **cadastral mapping**, and **geospatial services** under one roof.

•••• Future Challenges with ELRA

3. Does ELRA help you to identify and study future challenges and search for possible solutions?

Most certainly yes; **ELRA plays a pivotal role in fostering collaboration among European land registries**, benchmarking our organizations and activities and learning from the best practices shared and explored.

Through its initiatives, **we gain insights into new legal developments and emerging challenges** - such as **cross-border property transactions, harmonization of concepts and standards**, and the **impact of digitalization** - and work collectively to develop **legal and practical solutions**.



ELRA Board Members (2025 - 2027)

•••• Technology

4. Could you explain how your organization functions within this system, especially regarding the role of technology in improving efficiency and speeding up land registry processes?

Kadaster operates as a **fully digital organization**, where since 2005 hardly any document – although according to law this still needs to be possible – is sent on paper.

We receive these **deeds and related documents in an electronic way** from judicial officers, governmental agencies and notaries and also from abroad.

Our responses and confirmations as well as the information services we provide regarding rights of individuals and legal entities on various types of objects are provided entirely through **electronic channels**, using **secure platforms** and automated workflows to process registrations quickly and accurately.

Almost half of all the documents we receive as application for registration are processed without any human intervention. For almost all other documents we use **Artificial Intelligence** to support employees in processing these documents.

Our surveyors use advanced measurement tools and GIS systems to update boundaries in real time, ensuring that cadastral maps remain accurate and accessible.



Artificial Intelligence Panel: A New Challenge for Legal Professions, moderated by Jacques Vos (ELRA Board member), XXXIV General Assembly 2025

Technology has significantly reduced processing times, improved transparency, and enhanced the reliability of our services, as emerging technologies will transform our land registration system into a more predictive, automated, and user-centric system.

A Young Professional's View on the Future of Land Registration Technologies



5. As a young professional in the land registry field, how do you perceive the evolution of emerging technologies—such as artificial intelligence, advanced digitalization, or distributed systems—in the future of land registration?

I think these emerging technologies offer a lot of possibilities and can be powerful tools to support our work. They offer opportunities to streamline processes and reduce errors and processing times. For example, at Kadaster we already use AI to automatically extract data from notarial deeds, so the employee scrutinizing the deed only needs to read the deed and review, and, if necessary, adjust the data proposed for registration. Only after this check, the key register will be updated accordingly.

However, I do think several key principles must guide the implementation of these emerging technologies (specifically the use of AI) in the land registry. Some preconditions for responsible use of these technologies are transparency of the handling process, controllability (human in the loop) and data protection.

Furthermore, providing legal certainty should always be our primary goal. Therefore, data quality must be our top priority. Inaccurate or incomplete data will inevitably produce an unreliable outcome, no matter how advanced these emerging technologies are.

Another aspect of these emerging technologies that I consider important is their large climatological footprint. I think it is crucial to balance innovation with our environmental responsibility.

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6. What opportunities and challenges do you think these developments present for the next generation of registrars?

One of the challenges that these emerging technologies bring is that registrars will need to develop technical awareness and must communicate effectively with IT-professionals. This interdisciplinary collaboration is essential to ensure that technological solutions align with legal frameworks. Maintaining legal certainty and compliance will remain the core responsibility of the registrar, so the registrar should have oversight in all cases to ensure that the process and the registration are reliable and lawful.

Technological innovations also present opportunities for the next generation of registrars. For example, an innovation such as a 3D-registration can enhance legal certainty by providing a more accurate and comprehensive representation of property rights. At Kadaster, we are currently working on BIM Legal, a 3D-registration for apartment complexes that combines Building Information Models (BIM) with legal frameworks. This helps to represent apartment rights more accurately in public registers, improving insight and legal certainty, especially for complex legal and building situations.

ARTIFICIAL INTELLIGENCE WORKING GROUP

Recently, ELRA established a Working Group focused on examining the implications of AI in land registration, of which you are part of as coordinator:

5.What are your expectations regarding the outcomes and impact of this group's work on the future of land registration?



Jacques Vos

AI WG's Coordinator

1 As a Working Group, first we **explore our common ground**, recognizing the similarities regarding our **daily (legal) processes within the core land registry activities**. With that common ground, we will discover how AI can possibly streamline elements of these processes, e.g. document verification, detecting inconsistencies and possibly supporting the registrar in the legal process of decision-making.

2

Our Working Group will **develop voluntary guidelines** in the form of a non-binding opinion, **on the application of and possible best practices in Artificial Intelligence in EU property registers**.

However, if decided to incorporate AI in land registration processes, **we have to ensure that AI adoption aligns with fundamental principles of legal certainty, transparency, and data protection**.

3

Ultimately, the group's work should help us **balance technological innovation with enhancing data quality**, automating routine tasks and possible other tasks, such as (improving) fraud detection, while upholding the integrity and providing legal certainty to the highest level, as may be expected of land registries. For this, it is already recognized that, if AI is used in land registry processes, the registrar should have meaningful oversight in all cases.





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INTERVIEW PROJECT: MEET ELRA'S LAND REGISTRY ASSOCIATIONS



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