

Interconnecting Land Registers at the European Level: Technological Progress and Harmonization Aspects

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Abstract: Characterized by a substantial diversity and falling within the property law domain, land registration systems have been excluded from the European Union harmonization process. At the same time, however, cross-border access to land registry information is critical for the development of the internal market. Therefore, several ambitious strategies are being pursued at the European level to interconnect national land registers by fully exploiting the possibilities offered by the latest technological advances. This article investigates the effect of transnational cooperation initiatives aimed at interconnecting electronic land registers within the European e-Justice program for the enhancement of the integration of the real estate markets in Member States. In this respect, legal challenges connected with the standardization of land information are addressed from comparative and harmonization perspectives.

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1. Introduction

The formation of a functional legal, organizational, and technical framework for land registration constitutes one of the prerequisites for the development of national economies because of the vital role land registers play in ensuring the legal security of real estate transactions as well as in providing appropriate conditions for mortgage lending. The present stage of the evolution of land registration systems is distinguished by a considerable impact of innovative information and communication technologies, which are expected to ensure better efficiency.

Issues related to land registers and transnational conveyancing are also strongly reflected in the actions taken at the European level with a view to enhancing cross-border cooperation among land registration authorities and encouraging the growth of the real estate market Europe-wide. This refers particularly to the adoption of measures aimed at giving effect to the European Union internal market freedoms, especially the free movement of capital, as well as at further developing the area of freedom, security and justice. Nowadays, it is the progress in informatization processes that provides a special incentive to propose new strategies for creating a collaborative environment in the field of land registration and real estate transactions. Currently implemented integration initiatives are focused primarily on facilitating cross-border access to land information by interconnecting the Member States' electronic land registers, which forms part of the EU e-Justice Strategy. Parallel to carrying out the ICT-based cooperation projects is an ongoing legal scholarship debate on potential solutions to effectively stimulate the harmonization of land registers in Europe.

In this regard, it should be emphasized that land registration systems adopted in particular European countries, similarly to real estate transfer rules and respective legal terminology, show substantial divergences that are believed to hinder the achievement of the harmonization objectives. This derives from the fact that land registration, the purpose of which is to record the transfer of ownership and the creation of interests in land,¹ is inextricably connected with property law, and perceived as deeply rooted in national legal orders. Added to this are doubts concerning the legitimacy

¹ United Nations Economic Commission for Europe, *Land Administration Guidelines: With Special Reference to Countries in Transition* (New York–Geneva: United Nations, 1996), 11.

of the EU's interference in the Member States' property law systems, arising against the background of the provisions of the Treaties. For that reason, property law issues, in particular concerning immovables, have been constantly excluded from the EU's direct harmonization activity. At the same time, though, it is an attribute of the process of land registration itself that it is quite technical, which could be regarded as conducive to the European interconnection of land registers.

Given the aforementioned determinants, the question arises whether or not technological advancements in the field of land registration that are widely observed at the national level, together with the latest innovative proposals by the European Union and cooperating international organizations, appear to disruptively contribute to deepening the integration process and to intensifying transnational real estate transactions, thus allowing the harmonization difficulties faced so far to be overcome. This article aims to discuss the premises underlying the European implementation projects related to the interconnection of land registers, as well as to provide a critical appraisal of the outcomes achieved to date. The relevant considerations will be preceded by general remarks on the diversity of legal solutions in the field of land registration and the progress of the informatization processes, with particular focus on its significance for the accessibility of land registers' content. In this respect, reference will be made to both the EU Member States and non-EU countries.² Because of the limited scope of the contribution, issues pertinent to cadastral registration, relating to the physical status of land, shall be omitted.

2. Land Registers in Europe: An Outline

2.1. Differentiation of Types of Land Registers

The specificity of land registration systems existing in Europe reflects the historical influence of different legal traditions on the evolution of both substantive and organizational rules of the functioning of land registers. Particularly remarkable differences in this respect can be noticed between civil law and common law countries. However, this dissimilarity goes even further than the classic division into main European legal families.

² The comparative outline provided covers, i.a., the United Kingdom and its parts, irrespective of its withdrawal from the European Union in 2020.

As the issues regarding the categories of land registers in the comparative perspective have been comprehensively covered in the legal doctrine,³ this article will provide only a general overview of selected divergences among them.

One of the primary differentiation criteria of land registers relates to the subject of registration, being either titles or deeds, and this is closely associated with the effectiveness attributed to the content of the register. The characteristics of the registration of titles system, also known as the presumption of accuracy system, lie within the fact that it is rights to land (interests) that are registered. The legality of information presented is examined by the registrar and the inscription is authorized provided it does not contradict a right already inscribed in the register without the prior authorization by the title-holder. Moreover, registration is carried out based on the immovable properties, which is referred to as real *folium*. Consequently, only one person can appear in the register as the owner at any given point in time. The above system prevails in Europe and is in force, e.g., in Poland, Austria, Croatia, Denmark, England and Wales, Estonia, Germany, Hungary, Lithuania, Slovenia, Spain, and Sweden.

In respect to the registration of deeds system, also called the opposability system, the subject of registration are documents pertaining to rights

³ See, e.g.: Gerhard Larsson, *Land Registration and Cadastral System: Tools for Land Information Management* (Harlow–New York: Wiley, 1991); Jaap Zevenbergen, *Systems of Land Registration: Aspects and Effects* (Delft: Netherlands Geodetic Commission, 2002); Sergio Cámara Lapuente, “Registration of Interests as a Formality of Contracts: Comparative Remarks on Land Registers within the Frame of European Private Law,” *European Review of Private Law* 13, no. 6 (2005): 797–839; Christoph U. Schmid, Christian Hertel, and Hartmut Wicke, *Real Property Law and Procedure in the European Union: General Report* (European University Institute, 2005): 27–46, accessed June 25, 2023, <http://www.eui.eu/Documents/DepartmentsCentres/Law/ResearchTeaching/ResearchThemes/EuropeanPrivateLaw/Real-PropertyProject/GeneralReport.pdf>; Agostina Lodde, “The European Systems of Real Estate Registration: An Overview,” *Territorio Italia* 16, no. 1 (2016): 23–42; *Das Grundbuch im Europa des 21. Jahrhunderts*, ed. Arkadiusz Wudarski (Berlin: Duncker & Humblot, 2016); Luz M. Martínez Velencoso, “The Land Register in European Law: A Comparative and Economic Analysis,” in *Transfer of Immovables in European Private Law*, eds. Luz M. Martínez Velencoso, Saki Bailey, and Andrea Pradi (Cambridge: Cambridge University Press, 2017), 3–19; Paweł Blajer, *Rejestry nieruchomości. Studium prawnoporównawcze* (Warsaw: Wydawnictwo C.H. Beck, 2018); Flora Vern, “Land Registration Systems & Discourses of Property,” *European Review of Private Law* 29, no. 6 (2021): 835–52.

to land, and the register is ordered by persons (personal *folium*). It also should be noted that in practice land registers of this type are equipped with additional indices which assist in searching for ownership. The underlying deeds are not examined before being registered; instead, they only have to comply with formal requirements. It means that there is no identification of the certain and final owner, but a group of possible title-holders is defined. According to these premises, only persons who have already registered their rights are entitled to enforce their position before others. Registers of deeds function, e.g., in Belgium, Bulgaria, France, Italy, and the Netherlands.⁴

Land registers vary also depending on the legal effect of registration which may be of either a constitutive or a declaratory character. Constitutive registration is necessary and decisive for creating or transferring a right on real estate, and this is the case, e.g., in Germany. When it comes to declaratory registration, its aim is only to disclose the legal status of real estate and make the transfer of a right opposable to third parties – this rule applies, e.g., in France. Yet, there also are jurisdictions, including Poland and Italy, where registration of the transfer of ownership is declaratory, but at the same time, constitutive registration is required to create limited real rights on immovables.⁵

Another differentiating criterion, correlated with the previous one, refers to the protection of persons acting in trust for the content of the land register. Good faith in the register is protected in most countries with constitutive land registration (e.g. in Austria, England and Wales, Germany, Hungary) and in some legal orders stipulating a declaratory effect of land registration (e.g. in Poland, Denmark, Spain, and Sweden). Conversely, in other countries where registration is declaratory, such as Belgium and France, the protection of good faith is not guaranteed.⁶

⁴ Zevenbergen, *Systems*, 48ff.; Cámara Lapuente, “Registration,” 832–34; Schmid, Hertel, and Wicke, *Real Property*, 32; Elizabeth Cooke, *New Law of Land Registration* (Oxford–Portland, Oregon: Hart Publishing, 2003), 2ff.

⁵ Schmid, Hertel, and Wicke, *Real Property*, 34. See further: Blajer, “The Effect of Registration in the Land Register in the Framework of Real Estate Sale (Comparative Study),” *European Property Law Journal* 11, no. 1–2 (2022): 29–61.

⁶ Schmid, Hertel, and Wicke, *Real Property*, 34.

Furthermore, different solutions have been adopted in specific European countries in terms of the publicity of land registers. In most cases, free access to land registers is ensured and everyone can consult them. This applies, e.g., to Poland, Croatia, Denmark, Ireland, the Netherlands, and Sweden. By contrast, countries such as Belgium, Germany, and Spain impose some restrictions, and the content of land registers is accessible only upon demonstration of legitimate or legal interest, except for some public entities which are provided with broader access to the register. In this context, it is worth noting that, as a general rule, the way land registers can be consulted is influenced by adopting one of the aforementioned formats of registration, i.e. real *folium* or personal *folium*.⁷

Besides the differences among national land registers, examples of which were briefly described above, what additionally increases the diversity in this respect is that in some jurisdictions there is a dualism of land registration systems due to historical reasons or systemic reforms. Distinct co-existing types of land registers can be found in France, Italy, Ireland, Northern Ireland, Scotland, and Greece. Moreover, local systems function in German federal states, exercising competences in the field of land registration.⁸

2.2. Informatization Trends and Implications

When it comes to the widespread phenomenon of the application of new technologies in land registration, the levels of technological advancement differ from one country to another. Nevertheless, some common trends in this area can be identified. They can be analyzed, i.a., in the following terms: the progress in converting paper-based land registers into digital databases,

⁷ Ibid., 44; Blajer, *Rejestrzy*, 257–75; Blajer, “The Principle of Formal Publicity of the Land Register in a Comparative Perspective,” *European Property Law Journal* 11, no. 1–2 (2022): 5–28; Arkadiusz Wudarski, “Jawność ksiąg wieczystych. Analiza prawnoporównawcza w kontekście europejskim,” in *Rozprawy z prawa prywatnego oraz notarialnego. Księga pamiątkowa dedykowana profesorowi Maksymilianowi Pazdanowi*, eds. Anna Dańko-Roesler, Aleksander Oleszko, and Radosław Pastuszko (Warsaw: Stowarzyszenie Notariuszy RP, 2014), 444–68.

⁸ Blajer, “‘Deeds recordation’ a ‘title registration.’ Rozwiązania modelowe w zakresie rejestrów nieruchomości w systemie ‘common law,’” *Zeszyty Prawnicze* 13, no. 4 (2013): 82ff.; Schmid, Hertel, and Wicke, *Real Property*, 28, 40–1.

new possibilities for access to electronic land registers, and the informatization of land registration proceedings. More innovative solutions include the development of electronic conveyancing systems and the use of block-chain technology for land registration.⁹

Following the process of migration, i.e. the transfer of the content of traditional land registers to electronic ones, in most European countries land registers operating in the paper form have been replaced by databases kept in the information and communication technology system, which was done, e.g., in Poland, Austria, Estonia, France, Hungary, Italy, Lithuania, Portugal, Slovenia, Sweden, and the United Kingdom. Because of ongoing reforms, some other national land registers are kept in both paper and electronic forms. This is the case, e.g., in Bulgaria, Germany, and Luxembourg.¹⁰

The transformation of land registers into electronic databases has brought about new methods of accessing the information contained in them. As mentioned above, public access to land registers is a dominant rule in national legislations across Europe. Still, although being prevalently kept in the digital format, land registers are not commonly available on the Internet, which results from general restrictions provided for in particular legal orders, a subject-based differentiation of the online access scope, or some requirements of a technical nature. Free online access to the full content of land registers is ensured, i.a., in Poland. The only requirement to be met to consult a land register through a special browser provided by the Ministry of Justice is knowing the number of the land register kept for a particular immovable property. However, the users who access land registers in this manner cannot search for land registers. This is because only public entities (such as courts, public prosecutor's offices, fiscal control authorities, court executive officers, and notaries) are entitled to request the consent of the Minister of Justice for multiple and unlimited

⁹ See further: Maria Kaczorowska, "Postępy informatyzacji rejestrów nieruchomości w krajach Unii Europejskiej. Analiza prawnoporównawcza," in *Informatyzacja ksiąg wieczystych i postępowania wieczystoksięgowego*, ed. Jacek Gołaczyński (Warsaw: Wydawnictwo C.H. Beck, 2020), 149ff.; Kaczorowska, "Informatisation of Land Registers in Poland and Other Member States of the European Union: A Comparative Overview," *Law and Forensic Science* 17, no. 1 (2019): 30ff.

¹⁰ Kaczorowska, "Informatisation," 35–6; Blajer, *Rejestr*, 387ff.

searching for land registers in the database in order to perform their statutory tasks. In such cases, both objective and subjective searching criteria (concerning the real estate and the title-holders, respectively) can be used. Other examples of electronic land registers that are open to the public, in some cases upon payment, can be found in Croatia, Denmark, Estonia, Ireland, Latvia, the Netherlands, Portugal, and Slovakia. Different rules have been adopted in countries such as the Czech Republic, England and Wales, Finland, Hungary, or Italy, where it is envisaged that registered users, particularly professionals, and other authorized (public) entities can consult the full content of land registers, and they are provided with online search services, based either on objective or subjective searching criteria. Citizens who are not registered, meanwhile, can only access some basic information about a particular real estate. Furthermore, in respect to common online access to land registers, searching criteria may be restricted to the objective ones, which is the case, e.g., in Denmark, Latvia, Portugal, Slovenia, and Sweden.

The process of informatization has not affected the rules applying in some other countries in which land registers are available provided a legitimate or legal interest is demonstrated. As regards Germany, the possibility to view the land register on the Internet is offered mainly to the title-holders and entities authorized by them, such as banks, as well as to enforcement authorities. Unrestricted online access is provided to courts, government offices, notaries, and land surveyors who also are entitled to unlimited searching. Limitations apply in Belgium and Spain as well. It is not possible to access and consult land registers directly on the Internet because land information is made available by the registrars upon request that may be submitted electronically. Similar solutions have been adopted in France (except for the Alsace-Moselle region where land registers are accessible online). As far as other access methods are concerned, in most European countries copies and certificates from land registers can be obtained in both traditional and electronic forms.¹¹

Noteworthy achievements in modernizing land registration proceedings should also be mentioned. This refers particularly to the electronic submission of official application forms (stylesheets) or documents, including

¹¹ Kaczorowska, “Informatisation,” 37–8; Blajer, “The Principle of Formal Publicity,” 18ff.

notarial deeds, to the land registry, with the use of electronic signatures and mechanisms of automated data processing. Innovative tools and services have been introduced primarily for professionals engaged in real estate transactions and registration proceedings – notaries, public officers, and conveyancers, whereas applicants, acting individually, can take advantage of traditional ways of submitting requests for registration. Methods of digital communication to start land registration proceedings are used, e.g., in Poland, Austria, Denmark, England and Wales, Estonia, France, Hungary, Ireland, Italy, Lithuania, the Netherlands, and Spain.¹²

In addition to the above reforms in the area of land registration, several European jurisdictions have developed or are developing systems of electronic conveyancing through which it is possible not only to initiate the registration proceedings but also to dispose of the ownership of land electronically. An example of a fully operational e-conveyancing system is the Finnish one. The process of implementing digital conveyancing services is also advanced, i.a., in England and Wales, Denmark, Ireland, and Scotland.¹³

Currently, an ever-increasing role in land registration is being played by blockchain, which is a type of Distributed Ledger Technology (DLT). With the features of a decentralized, globally shared database that utilizes cryptographic techniques, blockchain is expected to ensure security, transparency, and efficiency in recording land transactions. For this reason, blockchain-based land registers are now being tested or implemented in several countries, including, e.g., the Republic of Georgia, Sweden, Estonia, the Netherlands, and the United Kingdom.¹⁴

¹² Kaczorowska, “Informatisation,” 38–9.

¹³ See, e.g.: Barbara Bogusz, “Bringing Land Registration into the Twenty-First Century: The Land Registration Act 2002,” *The Modern Law Review* 65, no. 4 (2002): 556–67; Cooke, “E-Conveyancing in England: Enthusiasms and Reluctance,” in *Torrens in the Twenty-First Century*, ed. David Grinlinton (Wellington: LexisNexis, 2003), 277–93; Judith Bray, *Unlocking Land Law* (Abingdon, Oxon: Routledge, 2015), 115ff.; Gabriel Brennan, *The Impact of eConveyancing on Title Registration: A Risk Assessment* (Cham: Springer, 2015); Matti Illmari Niemi, “Electronic Conveyancing of Real Property in Europe: Two Models. The English and the Finnish One,” in *Transfer*, eds. Martínez Velencoso, Bailey, and Pradi (Cambridge: Cambridge University Press, 2017), 20–53.

¹⁴ See, e.g.: Nicolás Nogueroles Peiró and Eduardo J. Martínez García, “Blockchain and Land Registration Systems,” *European Property Law Journal* 6, no. 3 (2017): 296–320; Pawel

When assessing the impact of the application of ICT on the way land registers function across Europe, it can be stated that, in general, informatization processes have helped to facilitate access to land information and to enhance the possibilities to search land registry databases. What should be emphasized in this respect is that both objective and subjective searching criteria can be used, regardless of the format of registration adopted in a particular system, the result being that the traditional distinction between the real *folium* and the personal *folium* seems to become less evident.¹⁵ At the same time, however, greater publicity of land registers entails a risk of processing the land registry data in a manner contrary to the purpose for which they were collected, which may imply a violation of the right to privacy and personal data protection.¹⁶ This is manifested, e.g., by the ongoing discussion in the Polish legal scholarship, regarding possible limitations of online access to the content of land registers.¹⁷ The above problems have

Opitek, “Zastosowanie technologii blockchain na rynku nieruchomości,” *Nieruchomości@* 1, no. 1 (2019): 97–110; Kaczorowska, “Blockchain-Based Land Registration: Possibilities and Challenges,” *Masaryk University Journal of Law and Technology* 13, no. 2 (2019): 339–60; *Disruptive Technology, Legal Innovation, and the Future of Real Estate*, eds. Amnon Lehavi and Ronit Levine-Schnur (Cham: Springer, 2020); John Quinn and Barry Connolly, “Distributed Ledger Technology and Property Registers: Displacement or Status Quo,” *Law, Innovation and Technology* 13, no. 2 (2021): 337–97; Cristina Argelich Comelles, “Smart Property and Smart Contracts under Spanish Law in the European Context,” *European Review of Private Law* 30, no. 2 (2022): 215–34; Vincent Ooi, Soh Kian Peng and Jerrold Soh, “Blockchain Land Transfers: Technology, Promises, and Perils,” *Computer Law & Security Review* 45 (2022): 1–13.

¹⁵ Martínez Velencoso, “The Land Register,” 17.

¹⁶ See further: Anna Berlee, *Access to Personal Data in Public Land Registers: Balancing Publicity of Property Rights with the Rights to Privacy and Data Protection* (The Hague: Eleven International Publishing, 2018).

¹⁷ See, e.g.: Agnieszka Gryszczyńska, “Jawność formalna ksiąg wieczystych w Polsce,” in *Rejestry publiczne. Jawność i interoperacyjność*, ed. Agnieszka Gryszczyńska (Warsaw: Wydawnictwo C.H. Beck, 2016), 261ff.; Jacek Gołaczyński, “Wnioski *de lege ferenda* dotyczące jawności formalnej ksiąg wieczystych,” in *Informatyzacja*, ed. Gołaczyński (Warsaw: Wydawnictwo C.H. Beck, 2020), 395–405; Kaczorowska, “Realizacja zasady jawności ksiąg wieczystych w prawie polskim w dobie informatyzacji. Zarys problematyki,” in *Informatyzacja*, ed. Gołaczyński (Warsaw: Wydawnictwo C.H. Beck, 2020), 88ff.; Kaczorowska, “Jawność formalna elektronicznych ksiąg wieczystych a ochrona danych osobowych i prywatności. Wybrane zagadnienia,” *Przegląd Ustawodawstwa Gospodarczego* 7 (2022): 31–42 and the literature cited there.

become of particular importance since the General Data Protection Regulation entered into application in 2018.¹⁸ The digital transformation in the area of land registration leads also to streamlining the land registration procedures, thus improving legal certainty and ensuring up-to-date land information. This, in turn, provides a basis for further modernization of land registration systems by way of introducing e-conveyancing systems and implementing blockchain-based automation mechanisms.¹⁹

3. The European Union's Regulatory Competences with Respect to Land Registers in the Context of the Harmonization of Property Law

As mentioned above, land registration issues, being to a large extent governed by property law rules, have not been directly subject to the European Union law-making process so far. Among the fields of private law, property law remains one of the least susceptible to harmonization (Europeanization). This process is referred to in a broad sense, taking its two-fold nature into account. The first form of harmonization, by which some common standards are introduced throughout the EU, is identified as “positive”.

¹⁸ Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L119, 4 May, 2016). See further: Berlee, *Access*, 205ff.

¹⁹ See further, e.g.: *Land Registration and Title Security in the Digital Age: New Horizons for Torrens*, eds. David Grinlinton and Rod Thomas (Abingdon, Oxon: Informa Law from Routledge, 2020); Kaczorowska, “Innovations in Land Registration and Their Impact on Cross-Border Conveyancing in Europe,” in *Property Law Perspectives VII*, eds. Jill Robbie and Bram Akkermans (The Hague: Eleven International Publishing, 2021), 103, 117–18. For more on the effects of informatization of the Polish land registration system, and on recommendations for its optimization, see, e.g.: Gołaczyński and Kaczorowska, “Ewolucja systemu ksiąg wieczystych pod wpływem informatyzacji. Wybrane problemy prawne i praktyczne,” *Rejent* 6 (2022): 9–37; Kaczorowska, *Istniejące i przyszłe rozwiązania IT w postępowaniu wieczystoksięgowym przy zachowaniu podstawowych zasad postępowania i ustroju ksiąg wieczystych – analiza prawnoporównawcza* (Instytut Wymiaru Sprawiedliwości: Warsaw, 2022); Marek Leśniak, “Koncepcja dalszej informatyzacji elektronicznego postępowania wieczystoksięgowego (ze szczególnym uwzględnieniem udziału notariuszy w tym postępowaniu),” in *Informatyzacja*, ed. Gołaczyński (Warsaw: Wydawnictwo C.H. Beck, 2020), 407–26; Blajer, *Rejstry*, 875ff.; Piotr Siciński, “Polskie koncepcje modernizacji ksiąg wieczystych a europejska koncepcja integracji rejestrów,” part 1, *Nieruchomości* 5 (2022): 4–8; part 2, *Nieruchomości* 7 (2022): 22–8.

It encompasses approximation by way of directives (which are binding as to the results to be achieved, and are transposed into the national legal framework), and unification, whose instruments are regulations (which are binding in their integrity and are applied in all Member States). Moreover, the EU's activity consists in the elaboration of non-binding model rules (so-called soft law). The second aspect of harmonization, referred to as "negative", relates to the removal of national rules contrary to the four Treaty freedoms by the Court of Justice of the European Union's (CJEU) case law, which has, therefore, a deregulatory character.²⁰

The reason for the exclusion of property law from the Europeanization process is that it is characterized by a significant diversity of national regulations in question, which are based on specific theoretical concepts that have evolved through history, and that it is traditionally deemed to be closely connected with individual states, particularly as regards rights on immovables.²¹ The autonomy of domestic legislators in the sphere of property law is enhanced by the *lex rei sitae* rule, which is almost universally accepted in private international law systems as an expression of territorial sovereignty.²² In line with this rule, in cases of an international scope, matters relating to ownership and other property rights shall be governed by the law of the state in which the property is located. This is especially crucial when dealing with immovable property, owing to its link with the territory of a particular country. The *lex rei sitae* rule is also used to determine the law that applies to the registration of property rights regarding immovables (*lex registrationis*) as well as their effects against third parties.²³ The relevance of

²⁰ Kathleen Gutman, *The Constitutional Foundations of European Contract Law: A Comparative Analysis* (Oxford: Oxford University Press, 2014), 25ff., 62ff.

²¹ Ugo Mattei, *Basic Principles of Property Law: A Comparative Legal and Economic Introduction* (Westport, Connecticut: Greenwood Press, 2000), 7ff.; Michele Graziadei, "The Structure of Property Ownership and the Common Law/Civil Law Divide," in *Comparative Property Law: Global Perspectives*, eds. Michele Graziadei and Lionel Smith (Cheltenham–Northampton: Edward Elgar Publishing, 2017), 71ff.

²² See further: Bram Akkermans, "Lex Rei Sitae and the EU Internal Market: Towards Mutual Recognition of Property Relations," *European Property Law Journal* 7, no. 3 (2018): 246–66.

²³ Dieter Martiny, "Lex Rei Sitae as a Connecting Factor in EU Private International Law," *Praxis des Internationalen Privat- und Verfahrensrechts* 32, no. 2 (2012): 119–33; Sjeff van Erp, "Lex Rei Sitae: The Territorial Side of Classical Property Law," in *Regulatory Property Rights: The Transforming Notion of Property in Transnational Business Regulation*, ed. Christine

the *lex rei sitae* and the *lex registrationis* rules is additionally highlighted by the fact that issues regarding ownership and other property rights as well as land registers are excluded from the substantive scope of application of the EU legal acts in the field of private international law and international civil procedure.²⁴

What also prevents the European Union legislator from directly interfering in national property laws is the uncertainty as to whether property law issues fall within the scope of the EU's competences. Controversies arise against the background of Article 345 of the Treaty on the Functioning of the European Union (TFEU),²⁵ which stipulates that the Treaties shall in no way prejudice the rules that govern the system of property ownership in individual Member States. Its meaning as well as the scope of its application have been subject to extensive debate in the legal scholarship and still remain unclear. According to a literal interpretation, exclusive competence to regulate ownership in private law terms shall be vested in the Member States. As far as a systemic interpretation is concerned, in turn, one can conclude that Article 345 TFEU, found in the part of the Treaty which contains general and final provisions, has merely a declarative meaning, and therefore it determines the scope of neither the EU's competences, nor those of the Member States. Finally, when interpreted historically, the provision in question refers to the neutrality of the Treaty only with respect to the ownership of undertakings. This is because Article 345 TFEU (formerly Article 295 of the Treaty establishing the European Community²⁶ and

Godt (Leiden–Boston: Brill Nijhoff, 2016), 59–81; Gołaczyński, *Prawo prywatne międzynarodowe* (Warsaw: Wydawnictwo C.H. Beck, 2017), 295ff.; Piotr Rodziewicz, “The Law Applicable to Property Rights and Possession,” in *Private International Law in Poland*, ed. Gołaczyński (Warsaw: Wydawnictwo C.H. Beck, 2019), 181–92.

²⁴ See, e.g.: Art. 1 para. 1 letters k and l of the Regulation (EU) No 650/2012 of the European Parliament and of the Council on jurisdiction, applicable law, recognition and enforcement of decisions and acceptance and enforcement of authentic instruments in matters of succession and on the creation of a European Certificate of Succession (OJ L201, 27 July, 2012) (hereinafter: Regulation 650/2012); Art. 24 points 1 and 4 of the Regulation (EU) No 1215/2012 of the European Parliament and of the Council on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (recast) (OJ L351, 20 December, 2012).

²⁵ Consolidated Version (OJ C202, 7 June, 2016).

²⁶ Consolidated Version (OJ C321E, 29 December, 2006).

before that Article 222 of the Treaty establishing the European Economic Community)²⁷ was worded on the basis of the so-called Schuman's Declaration, i.e. a speech delivered by the French foreign minister Robert Schuman on 9 May 1950 in which he proposed creating the European Coal and Steel Community to coordinate the production of coal and steel. According to the terms used in the Declaration, "the institution of the High Authority will in no way prejudice the methods of ownership of enterprises."²⁸ Such a restrictive interpretation has been also adopted in the CJEU's judicature, as reflected in the judgment of the Grand Chamber of 2013 in joined cases *Staat der Nederlanden v. Essent NV and Others*.²⁹ According to the view taken by the CJEU, Article 345 TFEU is an expression of the principle of the neutrality of the Treaties to the rules governing the system of property ownership applicable in Member States. In that regard, the Treaties preclude, as a general rule, neither the nationalization of undertakings nor their privatization. However, Article 345 TFEU does not mean that rules governing the systems of property ownership applicable in the Member States are not subject to the fundamental rules of the TFEU, which include the prohibition of discrimination, freedom of establishment, and the free movement of capital. Therefore, as follows from the abovementioned position of the CJEU, Article 345 TFEU does not exclude any activity of the EU institutions in the field of property law, which nevertheless does not provide grounds to assume that the EU has a general legislative power in this regard (the same applies to private law as a whole).³⁰ Without elaborat-

²⁷ Accessed June 29, 2023, <https://eur-lex.europa.eu/eli/treaty/teec/sign>.

²⁸ Akkermans and Eveline Ramaekers, "Article 345 TFEU (ex. 295 EC), Its Meanings and Interpretations," *European Law Journal* 16, no. 3 (2010): 292–314; Maciej Mataczyński, "What Did the European Community Founders Actually Mean by Saying that the Treaties Shall in No Way Prejudice the Rules in Member States Governing the System of Property Ownership?: Analysis of Article 345 TFEU," *Adam Mickiewicz University Law Review* 4 (2014): 39ff. See also: van Erp, "European Property Law: Competence, Integration, and Effectiveness," in *Measuring the Effectiveness of Real Estate Regulation: Interdisciplinary Perspectives*, ed. Levine-Schnur (Cham: Springer Nature, 2020), 205–18.

²⁹ CJEU Judgment of 22 October 2013, *Staat der Nederlanden v. Essent NV and Others*, Joined cases C-105–107/12, ECLI:EU:C:2013:677.

³⁰ See: van Erp, "A Comparative Analysis of Mortgage Law: Searching for Principles," in *Land Law in Comparative Perspective*, eds. María Elena Sánchez Jordán and Antonio Gambaro (The Hague–New York–London: Kluwer Law International, 2002), 84; Cámara Lapuente,

ing on this issue, reference should be made to the fundamental principle of conferral, which is laid down in Article 5 of the Treaty on European Union.³¹ According to this principle, the European Union acts only within the limits of the competences that EU countries have conferred upon it in the Treaties. Furthermore, the principles of subsidiarity and proportionality apply here, given that both the internal market and the area of freedom, security and justice, with which cross-border land transactions and land registration are closely connected, fall within the scope of policies subject to shared competences between the EU and the Member States (Article 4 paragraph 2 TFEU).³²

For the above reasons, matters pertinent to property law are covered only to a minor extent by the European Union legal acts and case law, with legal relations regarding immovables being in principle omitted.³³ Certain aspects of property law issues, which indirectly affect the functioning of land registers, have been regulated in legislation dealing with other areas of law.³⁴ In general, the CJEU's judicature has a similarly inconsiderable impact on the national property law systems, yet account should be taken

“Registration”, 801–4. In this context, see also: CJEU Judgment of 5 October 2000, Federal Republic of Germany v. European Parliament and Council of the European Union, Case C-376/98, ECLI:EU:C:2000:544.

³¹ Consolidated Version (OJ C202, 7 June, 2016).

³² See further: Rafał Mańko, *EU Competence in Private Law: The Treaty Framework for a European Private Law and Challenges for Coherence* (Brussels: European Parliamentary Research Service, 2015); Akkermans et al., *Who Does What?: On the Allocation of Competences in European Private Law* (Cambridge–Antwerp: Intersentia, 2015).

³³ Peter Sparkes, “European Contract Law: How to Exclude Land?,” in *The Transformation of European Private Law: Harmonisation, Consolidation, Codification or Chaos?*, eds. James Devenney and Mel Kenny (Cambridge: Cambridge University Press, 2013), 78–99. See also: Cámara Lapuente, “Registration,” 800; Schmid, “European Influences on Real Property Law” (EULIS Seminar on Conveyancing Practices, 2003), accessed June 29, 2023, <https://www.oicrf.org/-/european-influences-on-real-property-law>; van Erp and Katja Zimmermann, “The Impact of Recent EU Conflicts of Law Regulations on Land Registration,” in *Transformative Property Law: Festschrift in Honour of AJ van der Walt*, eds. Gustav Muller et al. (Cape Town: Juta, 2018), 318–40.

³⁴ See, e.g.: Directive 2002/47/EC of the European Parliament and of the Council on financial collateral arrangements (O.J.E.C. L168, 27 June, 2002); Directive 2011/7/EU of the European Parliament and of the Council on combating late payment in commercial transactions (recast) (OJ L48, 23 February, 2011).

of examples of cases involving property rights on immovables that have been decided on by the Court.³⁵ Significantly, property law matters concerning immovable property, and, consequently, land registers, are not addressed in the academic proposals for common European rules and principles in the area of private law, i.e. the European Civil Code³⁶ and the Draft Common Frame of Reference.³⁷ The plans to introduce the Eurohypothec, a pan-European security right on immovables, have not been implemented, either.³⁸ Although some recommendations concerning land registers were formulated in the “Basic Guidelines for a Eurohypothec” published in 2005,³⁹ they were drawn up in general terms and without regard to the material differences among the land registration systems existing in individual EU Member States.⁴⁰

³⁵ See, e.g.: CJEU Judgment of 11 October 2007, Möllendorf and Möllendorf-Niehuus, Case C-117/06, ECLI:EU:C:2007:596; CJEU Judgment of 12 October 2017, Kubicka, Case C-218/16, ECLI:EU:C:2017:755.

³⁶ See, e.g.: *Towards a European Civil Code*, eds. Arthur S. Hartkamp et al. (Nijmegen: Kluwer Law International, 2011).

³⁷ *Principles, Definitions and Model Rules of European Private Law: Draft Common Frame of Reference (DCFR). Interim Outline Edition*, eds. Christian von Bar et al. (Munich: Sellier, 2008); *Principles, Definitions and Model Rules of European Private Law: Draft Common Frame of Reference (DCFR). Full Edition*, eds. von Bar and Eric Clive (Munich: Sellier, 2009).

³⁸ Works on a proposal for a common European mortgage have been carried out since the 1960s by several groups of scholars and practitioners with the support of the European Community and then the EU. See, e.g.: Otmar Stöcker, “The Eurohypothec,” in *The Future of European Property Law*, eds. van Erp, Arthur Salomons, and Akkermans (Munich: Sellier European Law Publishers, 2012), 65ff.; Sergio Nasarre-Aznar, “The Integration of the Mortgage Markets in Europe,” part 1, *Silesian Journal of Legal Studies* 3 (2011): 39ff.; Kamil Zaradkiewicz, “Przyszłość koncepcji „eurohipoteki”. Część I: Rozwiązania w wybranych państwach europejskich,” *Nieruchomości@* 1, no. 1 (2023): 9ff.; Kaczorowska, *Koncepcja eurohipoteki na tle praw zastawniczych na nieruchomościach w Europie* (Wrocław: Wydawnictwo i Drukarnia Świętego Krzyża, 2016), 77ff.; Kaczorowska, “Accessoriness of Mortgage and the Development of a European Mortgage Market: Considerations from the Perspective of Polish Law in View of the Proposal of a Non-Accessory Eurohypothec,” *Transformacje Prawa Prywatnego* 1 (2017): 75ff.

³⁹ “Working Paper ‘Basic Guidelines for a Eurohypothec,” in *Basic Guidelines for a Eurohypothec: Outcome of the Eurohypothec Workshop. November 2004/April 2005*, ed. Agnieszka Drewicz-Tułodziecka, *Mortgage Bulletin* 21 (2005): 11–22.

⁴⁰ Blajer, *Rejestry*, 826.

4. European Cooperation Activities in the Field of Land Registration

4.1. Interconnection of Land Registers as Part of the European e-Justice Strategy

Arguments for enhancing cross-border access to land registers and thus stimulating the development of the internal market have been advanced by the European Commission for years. In 2005, the Green Paper on Mortgage Credit in the EU⁴¹ was published. According to that document, an understanding of the contents and operation of land registers, as well as easy access to them, are crucial for cross-border mortgage credit activity of any kind. In recognition of that fact, the Commission provided funding for the pilot phase of the “European Land Information Service” (EULIS) project, whose aim was to enhance cooperation between owners and controllers of registers and to facilitate cross-border access to them.⁴² The above document was followed by the White Paper on the Integration of EU Mortgage Credit Markets of 2007.⁴³ It specified the directions for reforms of land registration systems to be recommended by the Commission to the Member States, such as ensuring that land registers are available online as well as introducing more transparency and reliability into the land registers, in particular with regard to hidden charges. The Member States were also invited to adhere to the EULIS project.⁴⁴

Further improvement of accessibility of land registers is also covered by the EU e-Justice Strategy which aims to encourage the use and development of ICT at the service of the Member States’ judicial systems, especially in cross-border situations, to enable better access to justice and judicial information to citizens, businesses and legal practitioners, and to facilitate cooperation between judicial authorities of the Member States. Emphasis on promoting the interconnection of national registers containing information relevant to the area of justice, including land registers, was placed in the draft strategy on European e-Justice of 2013,⁴⁵ which was given specific expression in the Multiannual European e-Justice Action Plan 2014–2018, adopted by the European Council in 2014.⁴⁶ In line with its provisions,

⁴¹ COM(2005) 327.

⁴² *Ibid.*, 16.

⁴³ COM(2007) 807.

⁴⁴ *Ibid.*, 10.

⁴⁵ 2013/C 376/06.

⁴⁶ 2014/C 182/02.

the European e-Justice Portal, hosted and operated by the Commission in line with the Council guidelines, shall be key to the delivery of e-justice at the European level. The portal should also provide a single access point via interconnections to the information in national registers with relevance in the area of justice managed by national public or professional bodies facilitating the administration of and access to justice, provided that the necessary technical and legal preconditions for such interconnections exist in the Member States.⁴⁷

One of the projects considered for implementation which was given priority, as set out in the Annex, concerned carrying out of a feasibility study on the interconnection of land registers by the Commission. The outcome was a report presenting the results of a business and technical study as preliminary work towards building a land register interconnection in the European e-Justice Portal.⁴⁸ On that basis, in 2015, at the Commission's initiative, the "Land Registers Interconnection" (LRI) project was started. The project is supposed to address the current issues of discrepancy, complexity, and multitude of land registration systems among Member States by providing a single access point within the European e-Justice Portal to the land registers of participating EU countries. In this way, citizens and professionals will be able to use a single, adaptive, multi-lingual interface to query and retrieve relevant information, in compliance with the national legal and technical capabilities.⁴⁹ The implementation of the LRI project

⁴⁷ Ibid., 4.

⁴⁸ Rudolf De Schipper et al., *Land Registers Interconnection Feasibility and Implementation Analysis* (Luxembourg: Publications Office of the European Union, 2014), accessed June 29, 2023, <https://op.europa.eu/o/opportal-service/download-handler?identifier=831afdf-311c-4177-8d53-1d8d634b1d10&format=pdf&language=en&production-System=cellar&part=>

⁴⁹ Lodde, "The Interconnection of the European Registers of Real Property: The Comparison of the Italian and Spanish Cases," *Territorio Italia* 17, no. 1 (2017): 77–8; Jan Moerkerke, "Efforts, on a European Level, in Order to Facilitate Cross-Border Transfers of Real Estate," *8th ELRA Annual Publication* (2018): 14–5, accessed June 29, 2023, <https://www.elra.eu/wp-content/uploads/2019/01/Speech-GranadaJan-Moerkerke.pdf>; Rik Wouters, "Online Portals Support European Interconnection of Land Registers" (World Bank Conference on Land and Poverty, 2018), 3ff., accessed June 29, 2023, https://www.oicrf.org/documents/40950/0/593_07-11-Wouters-258_paper.pdf/9455cfc-4350-4bc0-68ea-fe34b-f850fa9?t=1583501179874; Gabriel Sima, "Land Registers Interconnection," accessed

is based on the previously achieved results of the EULIS project as well as the activity of the European Land Registry Association (ELRA) within the “Interoperability Model for Land Registers” (IMOLA) project, which will be discussed in more detail in the next section.

Between 2018 and 2019, the EU-funded “LRI Member State Connection” project was carried out with the participation of Austria and Estonia. Its purpose was to implement the national web services required to establish the connection between the Austrian and Estonian land registers and the LRI platform at the European e-Justice Portal. The project involved the adaptation of the national authentication portal for court professionals in Austria and Estonia so that the LRI platform at the e-Justice Portal could authenticate those users and check their professional capacity with the help of their national authentication portal, based on mutual recognition of the properly authenticated and authorized legal professionals.⁵⁰ Moreover, a demo site for the prospective central LRI service has been presented as a result of the project.⁵¹

Under the subsequent 2019–2023 European e-Justice Action Plan,⁵² it is foreseen that further measures to be undertaken within the LRI project should encompass connecting the national land registers to the LRI application on the e-Justice Portal including authentication and authorization of court professionals who may use privileged functions, and implementing an e-Payment solution for the payment of fees linked with LRI.⁵³ A follow-up “LRI MS Connection 2” project ran in the years 2020–2021, with an expanded group of countries being involved. Its objectives included the continuation of the analysis regarding the integration of additional services to the LRI platform of the European Commission, such as integrating a payment solution, a future authentication solution, or any other

June 30, 2023, <https://www.elra.eu/wp-content/uploads/2020/05/LRI-state-of-play-and-holistic-vision-by-Gabriel-Sima.pdf>.

⁵⁰ “Interconnecting Land Registers,” EU Project, accessed June 30, 2023, <https://lri-ms.eu/node/19>.

⁵¹ “Land Registers Interconnection (LRI),” European Commission, accessed June 30, 2023, https://dg-justice-portal-demo.eurodyn.com/ejusticeportal/content_land_registers_interconnection_lri-36276-en.do.

⁵² 2019/C 96/05.

⁵³ *Ibid.*, 11.

necessary adjustments for making the LRI service available to the public. The project resulted in Latvia connecting its land register to the LRI service platform. Moreover, Hungary, Portugal, and Spain conducted a thorough analysis to gain a full understanding of the country-specific conditions to be met before launching the development of the national LRI connection.⁵⁴ From the conclusions of the “LRI MS Connection 2” closing conference “Land Register Interconnection – United in Diversity”, held on 6 and 7 October 2021 in Madrid, it appears that since the interconnection of registers in the domain of justice consistently remains a high priority for the European Commission, the project partners will be seeking opportunities to continue the work conducted so far.⁵⁵

4.2. Underlying and Complementary Projects

4.2.1. EULIS

The output of the abovementioned EULIS project has laid the foundations for further development initiatives in the field of extending access to land information throughout Europe and underpinning cross-border land transactions. The project was carried out from 2002 to 2004 within the European Commission’s eContent Programme by a consortium of land registration authorities from England and Wales, Ireland, Lithuania, the Netherlands, Sweden, Austria, Finland, and Scotland. It resulted in an initial proof of concept and a business case for developing an operational service. The EULIS portal was officially launched in 2006, enabling professional users to retrieve information contained in the national land registers of the countries involved in the network: England and Wales, Ireland, Lithuania, the Netherlands, Sweden, and Norway as one of new EULIS members.

⁵⁴ “Connecting Land Registers to e-Justice Portal,” EU Project, accessed June 30, 2023, <https://lri-ms.eu/node/41>; Registradores de España, “The Mid-Term Review of the Project,” accessed June 30, 2023, <https://lri-ms.eu/node/49>.

⁵⁵ Katri Tammaaar, “Conference Presentations Published,” accessed June 30, 2023, <https://lri-ms.eu/node/54>. As set out in a European Commission’s Communication of 2020, the land registers interconnection is being piloted by a small number of Member States, and therefore to exploit its full potential it should extend EU-wide, with full participation of Member States being expected by 2024. See: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, “Digitalisation of Justice in the European Union: A Toolbox of Opportunities” (COM/2020/710 final), 13–15.

Additionally, the service offered reference information regarding particular systems of land transactions and land law, as well as a multilingual glossary providing a translation of expressions from one national language to another. The glossary also consisted of definitions in English of identified common concepts in land administration and registration.⁵⁶ In the period 2010–2012, the “Land Information for Europe” (LINE) project, funded by the EC-Directorate General Justice, was implemented with the purpose of facilitating compliance with the requirements of the European e-Justice programme in the area of land registration. The project’s main deliverable was the next generation EULIS 2.0 platform through which land registry organizations could provide cross-border services.⁵⁷ As of 2011, EULIS was owned and governed by a European Economic Interest Group, with 22 participating countries of different status. Among them, however, only a few (i.e. Austria, Ireland, Lithuania, the Netherlands, Spain, and Sweden) cooperated in full partnership.⁵⁸

Following the commencement of the LRI project, EULIS was intended to be incorporated within the European e-Justice Portal. Consequently, in 2017 the EULIS website was closed. It is envisaged that the EULIS’s architecture, technical solutions, and web services, designed to exchange stylesheets and deeds in cross-border transactions as well as information enquiries, will be reused, to the greatest extent possible, within the LRI project.⁵⁹

⁵⁶ Hendrik Ploeger and Bastiaan van Loenen, “EULIS: At the Beginning of the Road to Harmonization of Land Registry in Europe,” *European Review of Private Law* 12, no. 3 (2004): 379–87; Esa Tiainen, “The EULIS Glossary: Standardising Land and Property Information Technology,” *GIM International* 18, no. 10 (2004): 34–7; Stefan Gustafsson and Agnieszka Drewniak, “EULIS: Cross-Border Land Information in Europe” (FIG Working Week, 2008), accessed June 30, 2023, http://www.fig.net/resources/proceedings/fig_proceedings/fig2008/papers/ts05a/ts05a_03_gustafsson_drewniak_2939.pdf.

⁵⁷ Bengt Kjellson, “EULIS (European Land Information Service)” (WPLA Session Geneva, 2011), accessed June 30, 2023, https://unece.org/fileadmin/DAM/hlm/wpla/sessions/7th_session/item7_01.B.Kjellson.EULIS.pdf.

⁵⁸ “About European Land Information Service – EULIS,” European Commission, accessed June 30, 2023, <https://joinup.ec.europa.eu/collection/egovernment/solution/european-land-information-service-eulis/about>; Gustafsson, “EULIS: European Land Information Service. Co-Operation between Eight National Agencies,” *GIM International* 17, no. 8 (2003): 45–7.

⁵⁹ “About European Land Information Service”; Wouters, “Online Portals,” 3.

4.2.2. IMOLA

Institutional efforts of the EU to unite national land registers within a common network are accompanied by initiatives by ELRA, an international non-profit organization that groups 29 official land registry organizations from 25 European countries.⁶⁰ With its aims of providing interoperability solutions to increase the accessibility and transparency of land information and to facilitate the registration of cross-border documents, the IMOLA project makes a significant contribution to the development of a European real estate and mortgage market. The project, subsidized within the framework of the European Commission's Civil Justice Programme, has been carried out by ELRA together with EULIS, the Spanish Colegio de Registradores, and the Dutch Kadaster. The starting point of the project has been the premise that, despite the differences in national legislation and the practice of land registration, it is possible to define a structure of key information shared by most land registration systems. Based on comparative research on different types of property rights and registration methods, the main deliverable of the first phase of the project (IMOLA I), which was concluded in 2015, is a template of a European Land Registry Document (ELRD). It is a semantic model for standardized land registry outputs, developed using an XML schema with an "ABC" structure of the information (relating, respectively, to property, ownership, mortgages, and other encumbrances).⁶¹ As emphasized, ELRD represents a "bottom-up" approach and legal neutrality as the imposition of any existing land registration model in Europe is ruled out. This is because the template is a result of mutual understanding among land registers experts appointed by the participating organizations who perform the function of Contact Points of the European Land Registry

⁶⁰ "About Us," European Land Registry Association, accessed June 30, 2023, <https://www.elra.eu/about-us/>.

⁶¹ "IMOLA," European Land Registry Association, accessed June 30, 2023, <https://www.elra.eu/imola/>; Costas Simatos, "New Validation Services for the ELRD v3.1 Provided by the Interoperability Test Bed," accessed June 30, 2023, <https://joinup.ec.europa.eu/collection/interoperability-test-bed-repository/solution/interoperability-test-bed/news/itb-supports-elrd-v31>; Pedro Pernas, "The Role of the European Land Registries in the Shaping of the Single Market," 18ff., accessed June 30, 2023, <https://www.elra.eu/wp-content/uploads/2023/02/The-role-of-the-European-Land-Registries-in-the-shaping-of-the-Single-Market.pdf>.

Network (ELRN),⁶² set up by the ELRA members.⁶³ The adopted principle of respect to national land registration systems' legal rules shall be expressed by the fact that the value of ELRD will be determined by competent domestic authorities.⁶⁴ It is highlighted that, although the European document seems easier to implement in the registration of titles systems, the deed registration systems can adapt information of the personal *folium* to the ELRD requirements by relating deeds which it involves.⁶⁵

Follow-up actions were undertaken within the IMOLA II project, aimed at providing an interoperability platform that would enable the exchange of information based on the ELRD common structure.⁶⁶ The scope of the project, implemented between 2017 and 2019, covered the creation of a shared semantic knowledge repository integrated into the e-Justice Portal as a controlled vocabulary (Thesaurus) composed of agreed abstract definitions of concepts listed as "pivot terms."⁶⁷ Based on the metadata derived from the ELRN Contact Points' feedback, the repository is expected to enrich national land registry information with the techniques and

⁶² "IMOLA Summary," European Land Registry Association, 3, accessed June 30, 2023, <https://www.elra.eu/wp-content/uploads/2017/02/2.-Summary-of-the-IMOLA-Project.pdf>.

⁶³ Each participating organization has appointed a land registry officer expert in property rights and land registration as its contact point for the Network. See: "European Land Registry Network," European Land Registry Association, accessed June 30, 2023, <https://www.elra.eu/european-land-registry-network/>.

⁶⁴ Gabriel Alonso, "IMOLA: Building an International Land Registration Terminology," in *IMOLA II Project: The European Land Register Document (ELRD). A Common Semantic Model for Land Registers Interconnection*, eds. Anabel Fraga, Elena Ioriatti, and van Erp (Brussels: European Land Registry Association, 2019), 120–1.

⁶⁵ "IMOLA Summary," 3; Jorge López, "ELRD as a Tool to Organize Registry Information of Any Land Register System," in *IMOLA II Project*, eds. Fraga, Ioriatti, and van Erp (Brussels: European Land Registry Association, 2019), 98ff. Cf. Moerkerke, "The Use of the IMOLA Template in Deed Systems," *7th ELRA Annual Publication* (2017): 13–4, accessed June 30, 2023, <https://www.elra.eu/wp-content/uploads/2017/02/4.-Jan-Moerkerke-The-use-of-the-Imola-template-in-deed-systems.pdf>.

⁶⁶ "IMOLA II," European Land Registry Association, accessed June 30, 2023, <https://www.elra.eu/imola-ii/>.

⁶⁷ Alonso, "IMOLA," 126ff.

languages of the semantic web, and in this way, to fit with the underlying assumption of the LRI project.⁶⁸

Efforts to promote and achieve an effective model of reference information as a means to facilitate the creation of a semantic common area of justice in civil and commercial matters, consolidating and extending the previous IMOLA I and II results, were continued in the years 2020–2022 under the IMOLA III project. Its objective was to get the interoperability of metadata related to the juridical information supplied by ELRD through the consolidation of the semantic model for LRI. The main results of the project are: IMOLA Knowledge Organisation System (I-KOS) extended Corpus semantic Land Registers Core vocabulary, ELRD as a semantic and interoperable artifact, and IMOLA multiuser web platform and web services.⁶⁹

5. Harmonization Approaches Developed by the Legal Doctrine

Together with the above tendencies at the EU level, calls to overcome barriers resulting from the differences among national land registration systems by way of adopting some common solutions to foster cross-border real estate transactions have been advanced in the scholarship.

An example of this is the idea of a European land register that has been put forward in the discussion accompanying the preparatory works on the Eurohypothec. As was argued, based on the outcomes of the EULIS project, a common register would play an important complementary role to the European mortgage for the purposes of increasing transnational conveyancing as well as the registration of land charges.⁷⁰ The harmonization or even integration of national land registries within the EU in

⁶⁸ Jesús Camy and Fraga, “IMOLA II Overall Management Vision,” in *IMOLA II Project*, eds. Fraga, Ioriatti, and van Erp (Brussels: European Land Registry Association, 2019), 56ff.

⁶⁹ “IMOLA III,” European Land Registry Association, accessed June 30, 2023, <https://www.elra.eu/imola-iii/>; “Closing Conference,” European Land Registry Association, accessed June 30, 2023, <https://www.elra.eu/imola-iii/closing-conference/>. See further: Camy and Fraga, “IMOLA III Overall Management Vision, Results, and Future: A Summary Based on Images (Results on ANNEX I),” in *IMOLA III Project: The European Land Register Document (ELRD). A common Semantic Model for Land Registers Interconnection*, eds. Fraga and Ioriatti (Brussels: European Land Registry Association, 2022), 60–70.

⁷⁰ Nasarre-Aznar, “The Integration,” 49.

a single European land registry has been regarded as the natural next step after implementing the EULIS project. According to those precepts, the future portal should provide one uniform interface to present data stored in the individual national systems, thus ensuring international accessibility of land information. At the same time, an important challenge from the legal and organizational points of view would be to decide on whether to adopt the registration of titles or the registration of deeds model.⁷¹

In line with other recommendations formulated in the doctrine, a European land register should take the form of electronic books and should be organized by real estate properties, not by documents; moreover, the *prior in tempore potior in iure* principle should apply; the registrar should analyze the legality of the documents; the registered rights should belong to their holder in the manner shown by the land register (presumption *iuris tantum*), and third parties acting in good faith should be protected.⁷² The above selection of common rules, viewed in the context of property law harmonization, has been complemented by a proposal envisaging that constitutive creation and transmission of property rights should be based on English law; the operations should be conducted electronically (e-conveyancing, at that time being supposed to be implemented shortly in English law), and the person in charge of the register could be a notary, a judge, a land registrar, or a public servant.⁷³

Similar arguments underlie the idea of developing a framework for an autonomous property law system, including a European registry for the registration of European property rights, in the form of an optional instrument.⁷⁴ However, contrary to the solutions referred to above, it has been assumed that the common register could function not only as a register of

⁷¹ Cf. Ploeger and van Loenen, “EULIS,” 387.

⁷² Pedro de Pablo Contreras, María Isabel de la Iglesia Monje and Francisco Javier Orduña Moreno, “La Convergencia de los Sistemas Registrales Europeos: Una Propuesta de Armonización,” in *Los Sistemas de Transmisión de la Propiedad Inmobiliaria en el Derecho Europeo*, eds. Francisco Javier Orduña Moreno and Fernando de la Puente Alfaro (Navarra: Civitas, 2009), 633.

⁷³ Héctor Simón Moreno, “Towards a European System of Property Law,” *European Review of Private Law* 19, no. 5 (2011): 602–3 and the literature cited there.

⁷⁴ Ramaekers, *European Union Property Law: From Fragments to a System* (Cambridge–Antwerp–Portland: Intersentia, 2013), 254ff.

titles, but also as a register of deeds, or even a mere notice-filing system.⁷⁵ The proposed rules have been drawn on the example of the International Registry set up under the Cape Town Convention on International Interests in Mobile Equipment of 2001.⁷⁶

In the course of the debate on the Eurohypothec, it also has been suggested that a common method of land registration, called the EuroTitle, could be introduced in Europe as an alternative to the national land registration systems, to ensure transparency and certainty of land information. Following the registration of titles model, the EuroTitle could be issued by a national land registry within its jurisdiction; hence there would be no need for a European land register.⁷⁷

Based on the guidelines and recommendations elaborated in the recent decades by European and international institutions, such as the United Nations Economic Commission for Europe, the European Commission, and the World Bank, eight principles to be considered in the process of harmonization of land registration systems have been specified:

- 1) the real *folium* model appears optimal in terms of the economic effectiveness of the registration system, particularly given that it has been adopted in most European countries, including those of Central and Eastern Europe, where systemic reforms were implemented after the break-up of the Soviet Union;
- 2) access to land register information should be guaranteed to any citizen, not only for the national land register, but also for others, with full respect for any possible constraints due to data protection legislation;
- 3) in order to ensure that land information is intelligible, the system should be transparent and continually updated;
- 4) only registered rights should be opposable against third parties;

⁷⁵ Ibid., 261ff.

⁷⁶ See, e.g.: van Erp, “The Cape Town Convention: A Model for a European System of Security Interests Registration?,” *European Review of Private Law* 12, no. 1 (2004): 91–110.

⁷⁷ Ploeger, Nasarre-Aznar and van Loenen, “EuroTitle: Paving the Road to a Common Real Estate Market” (Ius Commune Conference, 2005), accessed June 30, 2023, http://www.bastiaanvanloenen.nl/pubs/2005_HDP_SNA_BVL_IUSCOMMUNE.pdf.

- 5) completeness of information should be ensured, which can be achieved through the use of land graphic bases in accordance with the INSPIRE Directive;⁷⁸
- 6) transparency in the land register should be improved in a way to prevent distortion of the principle of priority;
- 7) the third-party acquirer who trusts in the accuracy of the land register should be protected (acquisition in good faith);
- 8) full control of the documentation inscribed in the land register is required so that any claim to modify the contents of the rights published according to the legal system is reviewed.⁷⁹

6. Feasibility of the Harmonization of Land Registers in the Digital Transformation Era: An Attempt at Appraisal

Unarguably, more extensive use of ICT in land registration offers new opportunities to improve the performance of land registers' functions, and in this way to stimulate the transnational cooperation initiatives that contribute to enhancing the access to justice within the EU. At the same time, in light of the experiences so far in harmonization and interconnection of the European countries' land registers, it can be concluded that, as yet, the advancements in reforms pursuing the implementation of innovative solutions for the purposes of land registration seem not to suffice to compensate for the shortcomings of the real estate markets' integration caused by the identified legal and political limitations. This is primarily because, notwithstanding some common development tendencies, as shown by the brief overview presented in section 2.2, technological progress has not given rise to changes affecting the core premises underlying the national land registration systems. Consequently, remarkable divergences among them – in terms of the way registration is performed and registers are made accessible – continue to exist. Concerns are also raised in respect of the methods of cooperation among national land registration authorities employed so

⁷⁸ Directive 2007/2/EC of the European Parliament and of the Council establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L108, 25 April, 2007).

⁷⁹ Martínez Velencoso, "The Land Register," 16–9.

far. Moreover, practical difficulties in implementing harmonization projects have become manifest.

A notable illustration of such problems is the course of works within the EULIS project, which ultimately has proved unsuccessful, particularly considering that only a limited number of countries participated in that initiative. The reasons for this include the restrictions in access to land registers foreseen in several legal orders, not conforming with the very idea under EULIS. What is more, already at the beginning of the implementation of the project, the actual relevance of EULIS was put into question in the legal literature, the main concern being that the proposed solutions have not had regard to the specific juridical context in which rules on land registration are placed in particular jurisdictions. The above factor has been reasonably deemed determinative of the failure of the tools offered within the EULIS portal to effectively encourage the parties to enter into cross-border real estate transactions, for it would still be indispensable to resort to professional legal services.⁸⁰ Persistent differences among national land registration systems concerning the scope of available land information and methods of access thereto have been identified as significant difficulties as well.⁸¹ Similar views were expressed in 2014 by the Council of the Notariats of the European Union (CNUE) in its position on the Multiannual European e-Justice Action Plan 2014–2018.⁸² Consideration was also given to potential risks for the protection of personal data arising from common transnational access to land registers.⁸³

Against this background, it appears that the standardization and enhancement of the exchange of information from land registers, which are

⁸⁰ Schmid, Hertel, and Wicke, *Real Property*, 46; Cámara Lapuente, “Registration,” 820; Kaczorowska, “Perspectives for the Creation of a European Network of Land Registers,” in *Party Autonomy in European Private (and) International Law*, vol. 2, eds. Maria Elena De Maestri and Stefano Dominelli (Roma: Aracne Editrice, 2015), 99–100.

⁸¹ Ploeger and van Loenen, “EULIS,” 386.

⁸² Position of the Council of the Notariats of the European Union Concerning the e-Justice Action Plan 2014–2018 (2014), 4–5, accessed June 30, 2023, www.notaries-of-europe.eu/files/position-papers/2014/e-Justice-06-06-14-final-en.pdf.

⁸³ Cf. Schmid, Hertel, and Wicke, *Real Property*, 46; Zevenbergen, “Registration of Property Rights: A System Approach. Similar Tasks, but Different Roles,” *Notarius International* 8, no. 1–2 (2003): 137; Cámara Lapuente, “Registration,” 820; Ploeger and van Loenen, “EULIS,” 386.

the key objectives of the IMOLA project, could bring some possibilities of fostering cross-border land transactions. Such a view relies on the assumption that the ELRD template, based on a mutual understanding or so-called legal minimum shared by the ELRA members as well as respect to principles enshrined in particular legal orders, shall be useful for both the registration of titles and the registration of deeds systems. In this sense, the concept of ELRD corresponds to some extent to the scholarship proposal for a European land register that could follow the registration of titles as well as the registration of deeds. Nevertheless, there are grounds for doubts regarding the functionality of the adopted “ABC” schema, which the users representing the latter model are not familiar with, and therefore may find it difficult to categorize the information provided.⁸⁴ The above argument seems to find confirmation in the fact that the group of countries involved in the LRI MS Connection project was composed of those whose systems are based on the registration of titles.

There are also other issues of a legal nature that should be considered as diminishing the possibilities to accomplish the idea of a common European real estate market. Among them are, e.g., the differences in respect of legal effects to be attributed to ELRD, which – according to the project’s precepts – shall depend on the national authorities. Questions of ensuring the accuracy of the standardized land registry information and the responsibility for possible errors may be problematic, too. Moreover, again, discrepancies in the rules of publicity of national land registers, as well as privacy aspects, still need to be faced, even despite the blurring of the division between real *folium* and personal *folium* as a result of the application of ICT. What should be taken into account is not only that access restrictions envisaged in a number of jurisdictions remain valid, but that calls for limiting the on-line availability of land registers are being raised in some others because of the increased risk of data protection breach.

It will be possible to properly assess the LRI and IMOLA projects’ actual effects only at a later stage, after the practical implementation of the elaborated solutions. In general terms, the main potential of the current initiatives seems to lie in a large-scale semantic interoperability approach, aimed at ensuring that the specific legal and practical meaning of national

⁸⁴ Moerkerke, “The Use of IMOLA,” 14; Kaczorowska, “Innovations in Land Registration,” 127.

property rights and land registration proceedings is properly conveyed and understandable. Moreover, such bottom-up-oriented cooperation actions may contribute to improving the implementation of the European Judicial Space in Civil and Commercial Matters, by complementing the hitherto top-down measures related to cross-border real estate transactions, introduced in the EU. This refers particularly to the international land registration terminology, explanatory material, and assistance tools developed under the IMOLA project, in connection with the ICT-based instruments offered by the European e-Justice Portal, which provide a useful apparatus to potentially increase the efficiency of application of the EU regulations covering private international law issues, such as the Regulation 650/2012 (whose scope, as mentioned above, does not extend to real property and its publicity).⁸⁵ By contrast, the recommendations put forward by scholars opting for the registration of titles system, as preferable to the registration of deeds system, and all the more so the concepts of a uniform European land register, prove not to be consistent with the bottom-up perspective and the legal neutrality requirements. As such, they shall be considered not to be likely to be followed through.

More broadly, when estimating the chances for the harmonization of land registration systems by exploiting the technological potential existing today, one should take into account the impact of further evolution of traditional land registers under the influence of emerging technologies, such as blockchain, and the increasing role of automation processes. This, on the one hand, offers new possibilities to extend the functions land registers perform, but, on the other hand, poses significant legal challenges.

7. Conclusion

In the current harmonization context, given the exclusion of land registration issues from the scope of the EU legislative activity, and following

⁸⁵ For more on this issue, see: Guillermo Palao, “The European Land Registry Document Common Semantic Model as a Necessary Tool for the Efficient Implementation of the European Union Regulations in the Field of Civil Justice,” in *IMOLA II Project*, eds. Fraga, Ioriatti, and van Erp (Brussels: European Land Registry Association, 2019), 179ff.; Paula Pott, “The Use of ELRD as a Complementary Tool when Assessing an Application for the European Certificate of Succession (Art. 66.5 of the Regulation 2012/650),” in *IMOLA II Project*, eds. Fraga, Ioriatti, and van Erp (Brussels: European Land Registry Association, 2019), 201ff.

the failure of integration initiatives developed at the academic level, efforts being now undertaken to interconnect land registers are focused on an extensive application of innovative technologies, with the European e-Justice Portal playing a central role. Nevertheless, a successful enhancement of cross-border land information exchange requires that both the technological and legal aspects be addressed. What should be emphasized is the autonomy enjoyed by individual states in shaping their land registration systems, developed throughout history as a part of their national legal heritage. This naturally results in a multitude of approaches to how land registers are organized within specific domestic legal frameworks. The same applies to the peculiarities of the concepts and terminology related to property law. From the perspective of transnational access to land information, it is therefore of crucial significance to provide conditions for an adequate understanding of foreign legal terms which shall be embedded in the national legal context, and thus to safeguard the legal certainty, whilst respecting the diversity in the field of land registration.

As evidenced by the present-day tendencies in cooperation among national land registration authorities in Europe, an attempt has been made to fulfil the above criteria by combining the cross-border electronic access to land registers and the use of semantic web technologies under the LRI and IMOLA projects. Indeed, it can be assumed that the proposed solutions, underpinned by the legal neutrality principle, will have an indirect harmonization effect in the area of land transactions, which shall be manifested in developing electronic justice tools for citizens, of a soft law character. At the same time, the complexity and difficulty of interconnecting land registers cannot be overlooked. This is confirmed by numerous challenges to be confronted, particularly those presented by personal data and privacy protection requirements.

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