

Licensing Cadastral Surveyors in Norway: An Operational Perspective from the Norwegian Mapping Authority

Elena BUSCH, Norway and Kristin Schnell ROLFSØN, Norway

Key words: cadastre, legislation, professional practice, licensing

1. SUMMARY

This paper presents an operational perspective from the Norwegian Mapping Authority (Kartverket) on Norway's licensing scheme for cadastral surveyors, developed within a governance model that treats cadastral surveying as a public service. Municipalities hold exclusive responsibility for initiating and deciding cadastral cases and for updating the national cadastre, while each case is carried out by a designated, licensed surveyor acting on behalf of the municipality—either as a municipal employee or an external consultant under the same legal framework.

The Cadastre Act and the Cadastre Regulation define competence requirements, procedural rules, documentation standards, and obligations for submitting data to the cadastre. Licensing is personal and national in scope: successful applicants are granted a one-time licence to practise cadastral surveying, which may be revoked in cases of serious professional misconduct. Kartverket administers the licensing scheme, including assessment of applications, organisation of the licensing examination, maintenance of the public register of licensed surveyors, approval of qualifying study programmes based on learning outcomes, and issuance of guidance, with appeals handled through an independent review process.

Introduced in 2021, the scheme initially included a time-limited transitional pathway for experienced practitioners alongside a permanent, education-based pathway. The transitional pathway closed on 31 December 2025. From 1 January 2026, licensure is based exclusively on approved education, documented professional experience, and successful completion of the licensing examination. Most licences issued to date were granted through the transitional pathway, reflecting the formalisation of established practice.

Drawing on licensing data and operational experience, the paper shows how personal licensing, municipal responsibility, and continuous quality assurance together support consistent cadastral practice and reliable property data. Activity to date has approached the initial estimate of approximately 750 surveyors potentially eligible for licensure, and the combined system of licensing and study programme approval provides a durable basis for competence, accountability, and public oversight.

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2. INTRODUCTION

A reliable property register is a cornerstone of a well-functioning society. In Norway, the cadastre—the official register of land parcels, ownership, addresses, and buildings—is regarded as critical public infrastructure. National digital policy classifies it as a core information system, alongside the population and business registers. As such, it serves as an authoritative source of property-related information that supports a wide range of public services and private-sector applications.

For citizens, the cadastre provides legal certainty regarding ownership, boundary location, and property rights. For society, it enables secure land transactions, supports mortgage and real-estate markets, facilitates spatial planning and land management, and informs taxation, environmental protection, infrastructure development, and emergency response. The cadastre is therefore not merely a technical register, but a key component of public trust and effective governance.

Recent national strategies for digitalisation and spatial data have further strengthened the role of the cadastre as a shared digital backbone across all levels of government. A central objective has been to ensure that municipalities and national authorities rely on the same high-quality property data, thereby avoiding parallel systems and inconsistencies. This places heightened demands on the quality, completeness, consistency, and legal robustness of cadastral work.

Against this backdrop, the role of cadastral surveyors is of particular importance. Surveyors are responsible for carrying out the technical and administrative work that establishes and documents property boundaries and other cadastral changes. Their work forms the basis for municipal decisions and updates to the national register. The national licensing scheme is intended to ensure that only qualified professionals undertake this role. Competence, integrity, and accountability are therefore essential to maintaining the quality of the cadastre and safeguarding property rights.

3. LEGAL AND INSTITUTIONAL FRAMEWORK

3.1 Legal basis

The legal foundation for cadastral work in Norway is provided by the Cadastre Act (matrikkeloven), adopted in 2005 and fully implemented in 2010. The Act regulates the establishment, alteration, and registration of property units, addresses, and buildings in the national cadastre.

The Cadastre Act stipulates that cadastral work must be carried out by licensed cadastral surveyors and that such work may be performed only on behalf of a municipality. This arrangement ensures public oversight of boundary determination and supports a unified and reliable national property register.

A licensed cadastral surveyor is a person authorised to practise cadastral work. For each cadastral case, the municipality designates a licensed surveyor to conduct the cadastral work on its behalf. The Cadastre Regulation (matrikkelforskriften) provides detailed rules governing survey procedures, documentation requirements, submission of data for registration, and the licensing process.

3.2 Institutional responsibilities

Cadastral work and property registration in Norway are organised through a clear division of responsibilities between national and municipal authorities.

The Norwegian Mapping Authority (Kartverket) is the national cadastral authority, national mapping agency, and geodata coordinator. Its responsibilities include operating the national cadastre and land registry, managing national geodetic infrastructure and positioning services, producing official maps, and providing access to public geographic information.

Kartverket is also the licensing authority for cadastral surveyors. It administers the licensing scheme in full, including assessment of applications, issuance and revocation of licences, maintenance of the register of licensed surveyors, organisation of the licensing examination, approval of qualifying education programmes, and collection of fees. Licensing decisions may be appealed to the Ministry of Local Government and Regional Development, ensuring independent review.

Municipalities act as the local cadastral authorities. They hold exclusive responsibility for initiating and deciding cadastral cases and for updating the cadastre based on survey documentation and case decisions. For each case, the municipality designates a named licensed surveyor, ensuring that impartiality and competence are assessed on a case-by-case basis.

The designated licensed cadastral surveyor carries personal professional responsibility for the cadastral work in that case—whether employed by the municipality or engaged as an external consultant. In both cases, the same professional and procedural requirements apply, and the surveyor acts under municipal authority. This model combines national consistency with local flexibility, while placing uniform legal responsibility on all municipalities.

3.3 Public control of cadastral work

Norway's cadastral system is characterised by public control rather than market provision.

Although cadastral surveying has periodically been discussed as a potential market-based professional service, it has never developed as such in Norway. Instead, cadastral work has consistently been organised as a public service exercised under municipal authority. The licensing scheme was therefore designed within—rather than as a departure from—this public-service model.

Municipalities retain exclusive authority over cadastral decisions, and licensed private surveyors may undertake surveys only when commissioned by a municipality. Responsibility for both the cadastral decision and registration in the national cadastre always rests with the municipality.

Treating cadastral surveying as a public service subject to uniform rules and oversight contributes to safeguarding ownership rights, reducing conflicts, and maintaining a single, trustworthy property register.

3.4 Coordinates and boundary definition

Norwegian cadastre practice emphasises the determination of coordinates for boundary points to maintain an up-to-date cadastral map. While coordinates are essential for digital workflows, their legal meaning must be interpreted together with cadastral documentation and any physical boundary markers. This underscores the importance of professional competence, robust documentation, and sound municipal case processing.

4. THE LICENSING SCHEME FOR CADASTRAL SURVEYORS

In Norway, the right to carry out cadastral surveys is granted through a formal licensing process leading to a personal licence to practise cadastral work. The licence authorises its holder to be responsible for cadastral work that forms the basis for updates to the national cadastre. Licences are granted on a permanent basis and are not subject to periodic renewal, but they may be revoked in cases of serious professional misconduct. The scheme is administered by Kartverket and ensures that only qualified professionals conduct cadastral surveys on behalf of municipalities.

4.1 Purpose

The licensing scheme was introduced to improve the quality, consistency, and completeness of cadastral work by making competence requirements explicit and linking them to individual professional accountability. It supports professionalisation of cadastral surveying, harmonises practice across municipalities and strengthens public trust in cadastral services.

In line with the Norwegian model of public control, the scheme reinforces the understanding of cadastral surveying as a public service carried out under uniform legal and procedural rules. By linking personal professional responsibility to municipal designation in each cadastral case, the scheme also strengthens assessments of impartiality and transparency at case level.

4.2 Pathways to licensure

The licensing scheme entered into force on 1 January 2021 and initially provided two routes to licensure: a permanent, education-based *standard pathway* and a *transitional pathway* for experienced practitioners.

The *standard pathway* applies to candidates who meet formal education and experience requirements and who successfully pass the licensing examination. This pathway constitutes the long-term model for licensure and will be the sole route for new applicants following the conclusion of the transitional arrangement.

The *transitional pathway* was a time-limited measure designed to accommodate experienced practitioners who lacked a complete set of formal educational qualifications. Applicants were required to document relevant professional experience and to pass the licensing examination. Originally established for a three-year period, the transitional scheme was extended by two years in December 2022 to allow municipalities and practitioners sufficient time to adapt to the new licensing requirements.

The transitional pathway closed on 31 December 2025. From that date onwards, all new applications are assessed exclusively under the standard, education-based pathway, and cadastral work under the Cadastre Act may only be carried out by licensed surveyors.

In addition, recognition under the Professional Qualifications Act (yrkeskvalifikasjonsloven) provides a route for surveyors licensed in another EEA state to obtain a Norwegian licence. This route is narrow and demanding. Approval is not automatic: Kartverket assesses whether the applicant's education and professional authorisation in the home country are equivalent in level, scope, and content to the Norwegian requirements. Applicants must also document sufficient proficiency in the Norwegian language.

4.3 Education and experience requirements

Under the standard pathway, applicants must meet both education and experience requirements prior to taking the licensing examination. Educational requirements may be fulfilled either through completion of a bachelor's or master's degree from an approved study programme, or through another higher-education degree supplemented by 120 ECTS credits in relevant subject areas, such as property and land law, cadastral surveying, and geomatics.

In addition, applicants must document at least two years of relevant professional experience within the preceding eight years. This experience typically involves supervised cadastral work carried out in a municipal context. Kartverket assesses academic credentials and professional experience and administers the licensing examination.

4.4 Public register of licensed cadastral surveyors

Kartverket maintains a public register of licensed cadastral surveyors. The register provides authoritative, up-to-date information on licence status and serves as an official reference for municipalities, employers, and the public.

4.5 Licensing activity and applicant status

Since the licensing scheme was introduced in 2021, application and licensing activity has closely followed the design and timeline of the transitional pathway. Application volumes were highest in the early years, as experienced practitioners sought licensure before the transitional arrangement closed.

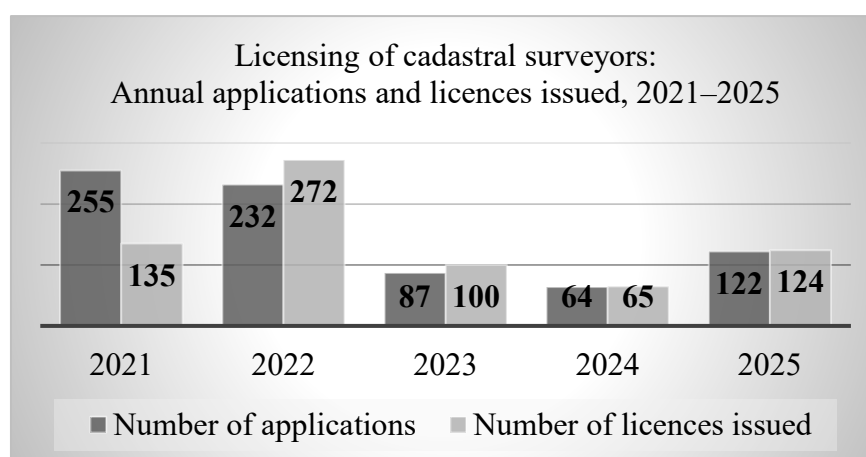


Figure 1: Licensing of cadastral surveyors: Annual applications and licenses issued, 2021–2025 (Kartverket, 2026).

Figure 1 presents annual numbers of applications received and licences issued between 2021 and 2025. Activity was highest while the transitional pathway remained open. In 2021,

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Kartverket received 255 applications and issued 135 licences, followed by a clear peak in 2022 with 232 applications and 272 licences issued. Volumes declined in 2023 (87 applications; 100 licences) and 2024 (64; 65), before increasing again in 2025 (122; 124) as remaining transitional applicants completed their applications prior to the deadline. The pattern reflects an initial surge driven by the transitional pathway, followed by stabilisation as the backlog of experienced practitioners was absorbed.

Over the period 2021–2025, Kartverket received a total of 760 applications for licensure and issued 696 licences. Table 1 summarises applications and outcomes by licensing pathway.

Table 1: Distribution of applications and licences issued by licensing pathway (Kartverket, 2026).

Licensing pathway	Number of applications	Qualified for licensing	Licences issued
Transitional pathway (Cadastre Regulation § 70)	718	669	656
Standard pathway (§ 64 b (1), approved degree programmes)	0	0	0
Standard pathway (§ 64 b (2), other higher education)	37	37	35
Professional Qualifications Act (§ 8)	5	5	5
Total	760	711	696

The number of applications exceeds both the number of applicants qualified for licensing and the number of licences issued. Of the 760 applications submitted, 711 were accepted as qualifying for examination. A total of 696 licences had been issued by the end of 2025. The remaining difference reflects applicants who have not yet completed or passed the licensing examination. Only 38 applications were refused on the grounds that statutory requirements were not met. This indicates a high degree of alignment between applicants’ qualifications and the competence requirements defined in the regulatory framework.

To date, no applicants have completed the standard pathway under section 64 b, first paragraph, of the Cadastre Regulation, which requires completion of an approved degree programme. This outcome is consistent with the timing of programme approvals: the first approved programme—the Master in Property and Land Law at the Norwegian University of Life Sciences (NMBU)—was approved in October 2025.

Under section 64 b, second paragraph, 37 applicants have been assessed as meeting the educational requirement based on higher education other than an approved degree

programme. Of these, 35 have so far been granted licences, while the remaining applicants are pending completion of the licensing examination.

In addition, five applicants have been assessed and licensed under the Professional Qualifications Act. All five had several years of professional experience working as surveyors within Norwegian municipalities. The limited number of cases reflects the strict equivalence requirements, as well as language and practice-related expectations, associated with this route.

Overall, the total number of applications is approaching the initial estimate of a potential pool of approximately 750 cadastral surveyors eligible for licensure. The observed development supports the view that the transitional pathway has largely served its intended purpose, and that future licensing activity will increasingly be shaped by recruitment through higher education and the standard, education-based pathway.

4.6 Geographical distribution

As of 17 October 2025, 664 applicants for cadastral surveyor licensure were affiliated with local or county administrations, of whom 584 had been granted licences. Table 2 presents the distribution of applicants and licensed surveyors by county.

Table 2: Applicants and licensed cadastral surveyors affiliated with local and county administrations, by county (Kartverket, 2025).

County ID	County name	Applicants	Licensed
3	Oslo	15	15
11	Rogaland	52	50
15	Møre og Romsdal	46	36
18	Nordland	53	38
31	Østfold	31	26
32	Akershus	66	62
33	Buskerud	43	40
34	Innlandet	75	68
39	Vestfold	22	19
40	Telemark	28	24
42	Agder	41	38
46	Vestland	85	76
50	Trøndelag	60	53
55	Troms	28	22
56	Finnmark	10	9
	Former county of Viken*	6	5

	Former county of Vestfold and Telemark*	2	2
	Former county of Troms and Finnmark*	1	1
	Total	664	584
*Former counties reflect legacy affiliations following regional administrative reforms.			

The geographical distribution shows broad national participation in the licensing scheme. Counties with many municipalities and substantial cadastral workloads—most notably Vestland, Innlandet, Akershus, and Trøndelag—account for the highest numbers of both applicants and licensed surveyors. More urbanised or sparsely populated counties, such as Oslo and Finnmark, show lower absolute numbers. These differences reflect variation in administrative structure, population size, and cadastral activity rather than unequal access to licensure. Taken together, the figures indicate that the licensing scheme has been implemented across the entire country and is well integrated into municipal cadastral administration.

4.7 Approval of study programmes

Under the standard pathway, licensure requires a degree from an approved study programme. To underpin this requirement and ensure clear implementation, Kartverket has established a formal approval framework set out in the recently developed *Guidelines for Approval of Study Programmes in Cadastral Surveying*. The guidelines translate statutory requirements into programme-level learning outcomes across three integrated domains—legal, cadastral, and geomatics—and provide an outcome-based, proportionate procedure for approving either full programmes or defined course combinations.

Educational institutions apply to Kartverket for approval. Relevant study programmes are reviewed against the defined learning outcomes—covering property and land law and procedure, surveying and geomatics, cadastral methods and documentation, and professional ethics and public administration. Approval involves a structured review of content and academic progression to confirm that graduates attain the competence required to serve as the cadastral surveyor.

The first approval was granted in October 2025 to the defined course combinations within the Master in Property and Land Law at the Norwegian University of Life Sciences, creating a clear educational route to licensure while preserving academic autonomy and aligning graduate competence with municipal practice.

Approved course combinations and programmes are subject to periodic review to maintain quality, and Kartverket maintains an ongoing dialogue with institutions to refine expected learning outcomes over time.

4.8 Challenges and developments

Recruitment and capacity remain challenges in some smaller municipalities, where cadastral responsibilities are broad and professional environments may be limited. Inter-municipal cooperation, shared services, and increased use of digital tools have therefore become important instruments for maintaining capacity and competence. Continued digital transformation of workflows, clearer guidance on documentation requirements, and systematic competence development are identified as key priorities going forward.

The conclusion of the transitional licensing pathway at the end of 2025 marks a shift towards a fully education-based and experience-based model. Over time, this is expected to contribute to more predictable recruitment from higher education, greater consistency in competence, and further harmonisation of cadastral practice nationwide.

At the same time, the Norwegian cadastral model has been subject to ongoing discussion. The municipal monopoly and cost-recovery principles applied to cadastral work have raised questions related to price levels and efficiency, and some stakeholders have argued for stronger market mechanisms in service provision. These discussions form part of the broader policy context in which the licensing scheme was introduced.

The licensing scheme was nevertheless designed to operate within — rather than to challenge — the established public-service model. By strengthening competence requirements, personal accountability, and transparency, licensing addresses quality, trust, and consistency concerns without altering the institutional allocation of responsibility. In this way, the scheme demonstrates that professional licensing can function effectively even within a tightly regulated, publicly controlled cadastral system.

5. CONCLUSION

Historically, cadastral surveying in Norway has periodically been discussed as a potential market-driven professional service. In practice, however, cadastral work has never developed into a private market activity. Instead, it has remained embedded in a public-service model, with municipalities holding exclusive responsibility for cadastral decisions and for maintaining the national property register. The licensing scheme introduced in 2021 was therefore not designed for a competitive market environment, but for a specific Norwegian institutional and regulatory context in which cadastral surveying is exercised as delegated public authority.

This institutional choice has not been without debate. Municipal monopoly and cost-recovery principles have raised concerns about price levels and efficiency, and some stakeholders have questioned whether stronger market mechanisms could reduce costs. Nevertheless, the licensing scheme was implemented within the existing framework, following a majority political decision to retain cadastral surveying as a public service. In this assessment, strong municipal authority, legal certainty, and uniform practice were considered to outweigh potential efficiency gains from market-based competition.

The introduction of licensing demonstrates that professional regulation can function effectively even in a non-market environment. The transitional pathway provided a generous and pragmatic adjustment period, allowing experienced practitioners to obtain licences while maintaining municipal capacity. Throughout this period, both the Ministry of Local Government and Regional Development and Kartverket showed flexibility and responsiveness to municipal needs, adapting timelines and requirements to ensure continuity of service. The fact that licensing activity has approached the initial estimate of approximately 750 eligible surveyors indicates that the scheme has successfully captured the existing professional base without undermining service delivery.

At the same time, the establishment of an education-based standard pathway and the approval of the first qualifying master's programme mark a clear transition from backlog conversion to long-term competence assurance. Together, licensing and study programme approval form a coherent system that links education, professional responsibility, and public oversight. This dual structure strengthens predictability for municipalities, students, and employers, while reinforcing trust in cadastral services.

The Norwegian experience suggests that licensing of cadastral surveyors does not require a market-based service model to be effective. When embedded in a clear legal framework, supported by public authorities, and aligned with higher education, professional licensing can enhance quality, accountability, and consistency even within a public-service structure. In this sense, the Norwegian scheme illustrates how licensing can evolve successfully within—and be shaped by—a distinctive national regulatory environment.

REFERENCES

1. Ministry of Local Government and Regional Development. Cadastre Act (Matrikkelova). <https://lovdata.no/lov/2005-06-17-101>
2. Ministry of Local Government and Regional Development. Cadastre Regulation (Matrikkelforskriften). <https://lovdata.no/forskrift/2009-06-26-864>
3. Ministry of Education and Research. Act relating to recognition of professional qualifications (the Professional Qualifications Act). <https://lovdata.no/NLE/lov/2017-06-16-69>
4. Norwegian Mapping Authority. Guidelines for Approval of Study Programmes in Cadastral Surveying. In Norwegian. Kartverket, 16.12.2024 <https://www.kartverket.no/eiendom/autorisasjon-av-eiendomslandmalere/retningslinjer-studieprogram>
5. Norwegian Mapping Authority. National Licensing Scheme for Cadastral Surveyors. Regulatory framework and guidance documents. In Norwegian. Kartverket. <https://www.kartverket.no/eiendom/autorisasjon-av-eiendomslandmalere>
6. Norwegian Mapping Authority. Statistics and administrative data on licensing of cadastral surveyors, 2021–2025. Internal administrative data, Kartverket.

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BIOGRAPHICAL NOTES

Elena Busch is a project leader at the Norwegian Mapping Authority with more than 35 years of professional experience in cadastral systems, land administration, and property rights, including extensive work in both Norwegian and international contexts. She is a surveyor by education and holds an MSc in Land Management. She led the development of Norway's *Guidelines for Approval of Study Programmes in Cadastral Surveying*, which support the national licensing scheme for cadastral surveyors.

Kristin Schnell Rolfson is a senior adviser at the Norwegian Mapping Authority and the lead officer responsible for Norway's cadastral surveyor licensing scheme. She has broad experience from the higher-education sector and from national public-administration projects, including municipal mergers, changes to administrative boundaries, and support for national elections. She has contributed to the development and implementation of the *Guidelines for Approval of Study Programmes in Cadastral Surveying* and has recently been involved in a national initiative on owner-submitted property data, aimed at improving the quality and completeness of the cadastre.

CONTACTS

Elena Busch
Norwegian Mapping Authority
Kartverksveien 21
Hønefoss
NORWAY
Tel. +47 32118512
Email: elena.busch@kartverket.no

Kristin Schnell Rolfson
Norwegian Mapping Authority
Kartverksveien 21
Hønefoss
NORWAY
Tel. +47 32118922
Email: kristin.schnell.rolfson@kartverket.no
Website: <https://kartverket.no/en>