

ELECTRONIC MONITORING OF PRISONERS AND OFFENDERS: A COMPARATIVE APPLICATION OF BULGARIAN AND ALBANIAN LEGISLATION

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Abstract: *Electronic monitoring has become one of the most important instruments through which contemporary criminal justice systems seek to reduce unnecessary deprivation of liberty while preserving public safety, procedural compliance and the authority of judicial decisions. This study examines the legal architecture of electronic monitoring in Bulgaria and Albania, with particular attention to its application to prisoners, probationers, persons under house arrest and persons whose movement is restricted by a judicial decision. The Bulgarian model is analysed through the Law on the Execution of Punishments and Detention in Custody, the Criminal Procedure Code and the implementing regulation on electronic monitoring. The Albanian model is analysed through Law No. 10 494 of 22 December 2011, the probation framework and the institutional role of the Probation Service and the State Police. In addition to the comparative legal analysis, the study integrates an empirical questionnaire administered to 200 professionals, including 130 employees of penitentiary institutions and 70 employees of the Probation Service. The findings show a high professional acceptance of electronic monitoring as an alternative to imprisonment, but also identify insufficient technical capacity, partial training, lack of uniform protocols and the need for stronger legal and institutional safeguards. The study argues that electronic monitoring should not be treated as a merely technical substitute for imprisonment. Its legitimacy depends on legality, proportionality, risk assessment, data protection, rehabilitation-oriented supervision and independent control.*

Keywords: *electronic monitoring, imprisonment, probation, house arrest, prison hostels, alternatives to imprisonment, proportionality, rehabilitation.*

1. Introduction

Electronic monitoring occupies a difficult position in criminal justice policy. It is presented as a humane and cost-efficient alternative to custody, yet it is also a form of continuous state surveillance. It may reduce prison overcrowding, but it may also widen the penal net if it is imposed in cases where ordinary probation, bail or non-custodial supervision would have been sufficient. For this reason, the legal quality of electronic monitoring cannot be assessed by asking only whether the technology functions. The decisive questions are normative and criminological: who may be monitored, for what purpose, for how long, by which authority, under what safeguards, and with what consequences in the event of non-compliance.

The comparative analysis of Bulgaria and Albania is particularly useful because both states operate within the broader European legal space and are influenced by Council of Europe standards, while their domestic models differ in structure. Bulgaria regulates electronic monitoring primarily inside the legal framework of execution of punishments and detention in custody. Its system expressly covers prisoners in open-type prison hostels, probationers and persons under house arrest. Albania regulates electronic monitoring through a special law applicable to persons whose movement is restricted by a judicial decision. The Albanian law is

wider in formal scope because it includes alternatives to imprisonment, additional punishments, coercive measures and protection orders, but its penitentiary and probation integration is less developed than the Bulgarian framework.

The object of this study is not to describe electronic monitoring as a technological product. The object is the legal application of electronic monitoring as a penal and procedural instrument. The study therefore treats electronic monitoring as a restriction of liberty that must satisfy the requirements of legality, necessity, proportionality, judicial control and effective rehabilitation. The central thesis is that electronic monitoring is legitimate only when it is embedded in an individualized supervision plan and when technological control is combined with professional assessment, social support and review mechanisms. A purely punitive or purely administrative use of electronic monitoring would be inconsistent with contemporary European standards on community sanctions and measures.

The empirical component strengthens the normative analysis by showing how professionals involved in the execution of criminal judgments and community supervision perceive the Albanian system. The questionnaire results demonstrate that the issue is not professional resistance to electronic monitoring as a concept. The issue is the gap between the normative ambition of the law and the operational capacity of the institutions expected to implement it.

2. Methodology, empirical design and research limits

The study applies a legal-dogmatic, comparative, historical and empirical method. The legal-dogmatic method is used to interpret the domestic legal provisions that define the scope, competent authorities, procedure and duration of electronic monitoring. The comparative method identifies similarities and divergences between Bulgaria and Albania in terms of institutional design, categories of persons, procedural safeguards and rehabilitative orientation. The historical method is relevant because both systems have developed electronic monitoring as part of a wider transformation of penal policy: from a custody-centred model toward a mixed model that includes prison, probation, house arrest and community-based supervision.

The empirical part of the study is based on a structured questionnaire administered to professionals working in institutions directly connected with the execution of criminal judgments and supervision in the community. The questionnaire was addressed to employees of the Social Care Service and Legal Sector in the penitentiary institutions of Fushe-Kruje, Peqin and Fier, and to employees of the Probation Service in Durrës, Tirana, Korça and Fier. The questionnaire contained 25 items and combined closed questions, Likert-scale evaluations and a final open question. It measured professional experience, training, knowledge of the legal framework, assessment of institutional capacity, perception of effectiveness, human rights guarantees and institution-specific views.

A total of 200 professionals participated in the study. Of these, 130 respondents, representing 65% of the sample, were employees of institutions for the execution of criminal judgments, mainly from legal and social care sectors. The remaining 70 respondents, representing 35% of the sample, were employees of the Probation Service. The results are interpreted descriptively because the available dataset consists of aggregated response patterns rather than a raw individual-level statistical database. For this reason, the study does not conduct

inferential statistical testing. The empirical findings are nevertheless useful for identifying dominant professional perceptions and institutional weaknesses.

The legal analysis is also subject to limits. It does not claim to measure the actual reduction of recidivism produced by electronic monitoring in either Bulgaria or Albania, because reliable comparable datasets on recidivism, breach rates, equipment failures and long-term reintegration outcomes are not publicly available in a form that would permit rigorous quantitative comparison. A sophisticated legal framework does not automatically mean effective implementation. Conversely, operational difficulties do not necessarily undermine the normative value of electronic monitoring if the law contains adequate safeguards and if institutions have the capacity to apply them in practice.

Table 1

Structure of the empirical sample

Category of respondents	Institutions included	Number	Percentage
Penitentiary / execution-of-sentences staff	IEVP Fushe-Kruje, IEVP Peqin, IEVP Fier	130	65%
Probation Service staff	Durres, Tirana, Korca, Fier	70	35%
Total sample	Seven institutional locations	200	100%

3. International standards: legality, proportionality and rehabilitation

The Council of Europe framework treats electronic monitoring as a criminal justice measure that must be regulated by law and subjected to proportionality (Council of Europe, 2014). The use, types, duration and modalities of electronic monitoring must be provided by law, and decisions to impose or revoke electronic monitoring should be taken by the judiciary or be subject to judicial review. These principles are not formalities. Electronic monitoring directly affects freedom of movement, private life, family life and data protection. It may also affect employment, education and social relations. Therefore, the legal basis must be clear enough for the person concerned to understand the obligations, the prohibited zones, the technical requirements and the consequences of breach.

Proportionality is the core standard. The level of technological intrusion must correspond to the seriousness of the offence, the procedural risk, the risk to public order or the risk of reoffending. A low-risk person should not be subjected to a highly intrusive GPS regime merely because the technology is available. Similarly, electronic monitoring should not be imposed automatically as an additional burden where ordinary supervision can achieve the same legitimate aim. The danger of net-widening is real: instead of replacing detention, electronic monitoring may become an extra sanction imposed on individuals who would otherwise have been free under less intrusive conditions.

Another basic requirement is the rehabilitative function of supervision. Electronic monitoring may secure compliance with restrictions, but it does not by itself address criminogenic needs such as unemployment, addiction, antisocial networks, lack of housing or family conflict. For this reason, European standards on community sanctions and measures require supervision to be connected with reintegration, not merely surveillance (Council of Europe, 2017). This is particularly important for prisoners leaving open or semi-open regimes, probationers and persons released conditionally. The device can record movement; it cannot produce desistance unless embedded in a broader correctional strategy.

Data protection is also fundamental. Electronic monitoring creates sensitive information about location, routines, associations and private life. The law must determine who collects data, how long it is stored, who may access it, when it may be transmitted to law enforcement, and how errors are corrected. Where private companies are involved in technical implementation, responsibility cannot be privatized. The public authority remains responsible for the legality, proportionality and ethical quality of the measure.

4. The Bulgarian legal model

4.1. Normative basis and definition

Bulgarian law regulates electronic monitoring primarily in Part Five of the Law on the Execution of Punishments and Detention in Custody (*Zakon za izpalnenie na nakazaniyata i zadarzhnieto pod strazha*, ZINZS), Articles 262-275. Article 262 defines electronic monitoring as a form of control over the location, movement and behaviour of persons. The same provision identifies three technical forms: voice recognition, radio-frequency monitoring and satellite monitoring. This definition is important because it does not reduce electronic monitoring to a single device. It creates a flexible legal framework capable of adapting the level of control to the type of person and the purpose of supervision.

Article 263 of ZINZS determines the categories of persons to whom electronic monitoring may be applied. These include prisoners serving sentences in open-type prison hostels under general regime, and under light regime in the cases provided by law; persons subject to probation measures such as mandatory registration at the current address or restrictions on free movement; and persons subject to the procedural measure of house arrest. The Bulgarian framework is therefore explicitly connected both with execution of imprisonment and with non-custodial measures.

The inclusion of prisoners in open-type prison hostels is a distinctive feature. It shows that electronic monitoring is not only an alternative to imprisonment but also a tool for managing the transition between custody and the community. A prisoner who works or spends nights outside the prison hostel may be monitored for the period in which he or she is outside the institution. This allows a more flexible execution of imprisonment while preserving a structured form of control.

4.2. Duration, competence and technical implementation

Bulgarian law differentiates duration according to the category of monitored person. For persons under probation measures, Article 267 ZINZS provides a basic term of two to six months, with the possibility of a single extension up to six additional months. The maximum duration may not exceed one year. This rule is normatively sound because it prevents indefinite technological supervision and requires review through a behavioural report prepared before expiry of the initial period.

For persons under house arrest, Article 268 ZINZS provides that electronic monitoring applies for the entire duration of the house arrest measure. The connection with criminal procedure is made through Article 62 of the Bulgarian Criminal Procedure Code. House arrest is a prohibition on leaving the dwelling without permission, and paragraph 6 permits compliance with that prohibition to be controlled by electronic surveillance devices according to the procedure established by law. The substantive and technical framework is then supplied by ZINZS and its implementing regulation.

Article 270 ZINZS assigns execution of electronic monitoring to the territorial services of the General Directorate Execution of Sentences. Cooperation with the Ministry of Interior is regulated by a joint instruction of the Minister of Justice and the Minister of Interior. Article 271 allows technical activities to be entrusted to service providers that are legal persons registered in Bulgaria, under a public procurement contract. The contract may cover delivery, installation, maintenance, repair and servicing of technical devices, organization of monitoring, control and interaction with probation services when violations are detected.

The implementing regulation, in Part Eight, Articles 338-374, gives operational detail on execution by the territorial services of the General Directorate, technical activities by the Directorate or contracted operators, the combination of electronic monitoring with other behaviour-control measures, procedures for prisoners in open-type hostels and persons under house arrest, registration and verification of breach signals, suspension, termination, damage to devices and consequences of violations. This regulatory density is one of the strengths of the Bulgarian framework because it reduces the distance between statutory authorization and practical execution.

4.3. Evaluation of the Bulgarian model

The Bulgarian model is coherent because it integrates electronic monitoring into the execution of sentences, probation and pre-trial house arrest. It also differentiates technology by category of person. Voice recognition is linked mainly to probation, while house arrest excludes voice-recognition monitoring and relies on other forms. This avoids a one-size-fits-all approach. The model is compatible with a risk-based philosophy: prisoners in open-type hostels, probationers and persons under house arrest present different legal statuses and different risks, and the form of monitoring should reflect those differences.

However, the Bulgarian model also raises questions. The law provides for informed consent in relation to persons subject to probation measures, but electronic monitoring of house arrest is more coercive because it is attached to a procedural restraint. The stronger the coercive element, the more important judicial reasoning becomes. Courts should not merely order house arrest and allow electronic control as an administrative consequence. They should assess whether electronic monitoring is necessary in the specific case and whether a less intrusive measure would suffice. A second issue concerns private service providers. Their involvement is not illegitimate, but transparency, audit, cybersecurity and data retention rules must be robust because location data are particularly sensitive.

5. The Albanian legal model

5.1. Special law and scope of application

Albania regulates electronic monitoring through Law No. 10 494 of 22 December 2011 On electronic monitoring of persons whose movement is restricted by a judicial decision. Article 1 provides that the object of the law is to determine the rules for implementing electronic monitoring in order to control the execution of orders contained in a judicial decision imposing one of the alternatives to imprisonment, an additional punishment, one of the coercive measures, or a protection order or immediate protection order. Article 2 defines the purpose as increasing public safety and guaranteeing effective enforcement of judicial decisions.

This legislative design is broad. It is not limited to convicted prisoners or probationers. It covers several categories of judicially imposed restrictions, including criminal and protective contexts. This

breadth can be seen as a strength because electronic monitoring may serve several legitimate functions: ensuring compliance with house confinement, enforcing exclusion zones, supervising alternatives to imprisonment, and protecting victims. At the same time, breadth creates a risk of conceptual dilution. A system designed to supervise offenders under alternatives to imprisonment is not identical to a system designed to enforce domestic violence protection orders. The legal safeguards, consent issues, victim participation and breach consequences differ.

The Albanian law uses the concept of a subject placed under electronic monitoring and refers to devices placed on the body of the subject in order to determine real-time location. It also refers to an operational room responsible for collecting, processing and reporting data received from the device. These definitions reveal a model based primarily on location-control technology. Compared with Bulgaria, the Albanian law is less embedded in the structure of prison hostels and penitentiary transition. Its main legal anchor is the judicial decision restricting movement.

5.2. Judicial initiative, consent and execution

The Albanian model gives the court a central role. The court may decide the use of electronic monitoring ex officio or upon request by the prosecutor, the subject, the defence lawyer, the victim, or the parents or guardian of a minor, depending on the case. The judicial nature of the decision is consistent with European standards because the restriction affects fundamental rights and should not be imposed merely by administrative convenience.

Consent occupies an important but complex place. In many electronic monitoring systems, consent is used to avoid practical and constitutional difficulties: the subject must allow installation, keep the device functioning, respect technical instructions and remain reachable. Yet consent in criminal justice is rarely fully voluntary. A person may accept electronic monitoring because the alternative is detention. For this reason, consent should be understood as informed procedural cooperation, not as a waiver of fundamental rights. The court must still examine necessity and proportionality.

Institutionally, the Albanian system is connected to the Probation Service in cases involving alternatives to imprisonment and house confinement. The Probation Service prepares individual treatment and supervision plans, monitors compliance and may seek assistance from the State Police for field coverage. This connection is essential. Electronic monitoring without probation work would reduce the measure to surveillance. Probation gives the measure content: risk assessment, reintegration planning, employment and housing support, reporting to the prosecutor or court, and response to non-compliance.

5.3. Practical and normative challenges in Albania

The main difficulty in the Albanian model is the gap between broad legal authorization and consistent operational capacity. A law that permits electronic monitoring is not the same thing as a functioning national system with sufficient devices, trained staff, reliable control rooms, technical maintenance, data protection protocols and standardized court practice. If the measure is rarely applied or applied inconsistently, it cannot fully serve its intended role as an alternative to imprisonment or as an effective enforcement tool.

A second challenge is the relationship between electronic monitoring and the penitentiary system. Albania has developed a legal framework for alternatives to imprisonment and probation, but the connection between electronic monitoring and prison-exit mechanisms is less

systematic than in Bulgaria. The Bulgarian model expressly covers prisoners in open-type prison hostels who work or spend nights outside the hostel. Albania's special law is formally capable of supporting alternatives to imprisonment and movement restrictions, but it does not create the same detailed statutory architecture for monitored prisoners in semi-open or transitional prison regimes.

A third challenge concerns proportionality and net-widening. Because the Albanian law covers a wide set of measures, courts must carefully distinguish cases where electronic monitoring replaces detention from cases where it merely intensifies supervision. The measure should not be imposed automatically whenever a movement restriction exists. The judicial decision should identify the legitimate aim, the concrete risk, the duration, permitted movements, prohibited zones, data rules and the consequences of violation.

6. Comparative analysis of the Bulgarian and Albanian models

The first difference between the two systems concerns legal technique. Bulgaria regulates electronic monitoring inside the law on execution of punishments and detention, with detailed provisions on categories, duration, competent authorities and implementing rules. Albania uses a special law dedicated to electronic monitoring of persons whose movement is restricted by judicial decision. The Bulgarian technique is narrower but more integrated with the penal-execution system. The Albanian technique is broader but more dependent on judicial practice and operational coordination.

In Bulgaria, electronic monitoring is clearly linked to three categories: prisoners in open-type hostels, probationers and persons under house arrest. In Albania, the law covers alternatives to imprisonment, additional punishments, coercive measures and protection orders. Thus, Bulgaria provides clearer differentiation by penal status, while Albania provides greater formal flexibility. From a rule-of-law perspective, clarity is usually preferable to breadth. From a policy perspective, breadth may be useful if institutions are capable of tailoring the measure to each context.

Table 2

Comparative structure of electronic monitoring in Bulgaria and Albania

Criterion	Bulgaria	Albania
Core legal basis	ZINZS, Part Five, Articles 262-275; Criminal Procedure Code Article 62; implementing regulation, Part Eight.	Law No. 10 494 of 22 December 2011 on electronic monitoring of persons whose movement is restricted by judicial decision.
Main categories	Prisoners in open-type prison hostels; probationers; persons under house arrest.	Persons subject to alternatives to imprisonment, additional punishments, coercive measures, protection orders or immediate protection orders.
Institutional model	Territorial services of the General Directorate Execution of Sentences, with Ministry of Interior cooperation and possible technical outsourcing.	Court-centred authorization; execution connected with the Probation Service and operational/police support depending on the measure.
Technology	Voice recognition, radio-frequency monitoring and satellite monitoring.	Body-worn device and operational room for real-time location and reporting.
Main strength	Systematic integration with execution of sentences and open-type prison-hostel regime.	Broad judicial-control instrument capable of covering several legal contexts.
Main risk	Overreliance on technical providers and insufficient individualized reasoning.	Gap between legal breadth and practical capacity; risk of inconsistent application.

The most important substantive difference concerns prisoners. Bulgaria expressly regulates electronic monitoring for prisoners serving sentences in open-type prison hostels. This is a concrete bridge between custody and community supervision. It allows the prison administration to authorize work or overnight absence outside the hostel while maintaining location control. Albania's framework, although capable of supporting restrictions imposed by court decision, does not provide the same explicit and detailed regulation of electronically monitored prisoners in open-type penitentiary settings.

For probationers, both systems can use electronic monitoring as an intensification of supervision. Bulgaria ties monitoring to specific probation measures and sets a maximum duration. Albania links monitoring to the judicial decision and the Probation Service's supervision framework. The Bulgarian model is more precise on duration; the Albanian model requires courts to specify duration and modalities carefully in the decision.

Electronic monitoring produces location data and behavioural patterns. Bulgaria expressly allows technical activities to be assigned to private providers under public procurement and requires personal data processing in compliance with data protection requirements. Albania's law refers to the operational room and the collection, processing and reporting of data from devices. In both countries, data protection should be treated as a core element of legality, not as an afterthought.

The comparative analysis confirms that electronic monitoring has no rehabilitative value by itself. It may create external compliance, but desistance requires internal and social change. Probation work, family support, employment, education, treatment and structured daily routines are the elements that can transform monitoring into a constructive penal measure. Without these elements, electronic monitoring risks becoming custody without walls: less expensive than prison, but still primarily punitive and potentially socially isolating.

7. Empirical questionnaire: results and interpretation

7.1. Purpose and structure of the questionnaire

The empirical questionnaire was designed to test whether the normative analysis corresponds with professional perceptions inside the Albanian system. The instrument was intentionally kept concise in order to reduce formal or incomplete responses. It contained 25 questions divided into seven sections: general professional data, legal and institutional knowledge, practical implementation, perceived effectiveness, human rights and data protection, institution-specific questions and final recommendations.

The questionnaire was administered to two professional groups. The first group consisted of employees of institutions for the execution of criminal judgments, especially the Social Care Service and Legal Sector in the penitentiary institutions of Fushe-Kruje, Peqin and Fier. The second group consisted of employees of the Probation Service in Durrës, Tirana, Korça and Fier. The sample therefore reflects both the penitentiary perspective and the community-supervision perspective.

7.2. Results for penitentiary / execution-of-sentences staff

From the 130 professionals belonging to institutions for the execution of criminal judgments, approximately 75%, or about 98 respondents, gave answers showing a medium level

of knowledge of the legal framework but a critical assessment of the current institutional and technical capacities for implementing electronic monitoring. This group did not reject electronic monitoring as a concept. On the contrary, the dominant response pattern supports electronic monitoring as an effective alternative to imprisonment, a possible tool for reducing prison overcrowding and a mechanism that may preserve family relations, employment and social reintegration.

The same group identified serious implementation weaknesses. The most frequently selected problems were lack of equipment, lack of specialised training, lack of clear procedures, weak inter-institutional coordination and delays in response. The dominant response pattern therefore indicates that the obstacle is not the theoretical acceptability of electronic monitoring, but the absence of concrete operational conditions for its effective use.

The answers also show that the legal framework is perceived as only partly clear. A large part of the penitentiary staff considers that the legislation requires substantial improvement, especially through uniform national protocols, clearer division of responsibilities and better procedural guidance on breach signals. The requirement of individual risk assessment before imposing electronic monitoring was strongly supported, which confirms that professionals do not view the measure as automatic but as one that must be individualized according to risk level, behaviour, stage of sentence execution and prospects of reintegration.

Table 3

Dominant response pattern among penitentiary / execution-of-sentences staff

Issue measured	Dominant response among approx. 75% of the group	Interpretation
Training on electronic monitoring	Partial training	Training is not absent, but it is not sufficiently structured or specialized.
Knowledge of the legal framework	Medium level	The law is known in general terms, but not with operational certainty.
Need for legislative improvement	Substantial improvement required	The problem is both normative and practical.
Clear institutional instructions	No clear instructions	Implementation depends on fragmented or informal practices.
Technical and human capacity	Very low	The system is not perceived as ready for wide practical use.
Main practical problems	Lack of equipment, training, clear procedures, coordination and rapid response	The reform requires technical, procedural and institutional investment.
Effectiveness as alternative to imprisonment	Strong agreement	The measure is professionally accepted as a penal-policy instrument.
Most suitable prisoners	Low-risk persons	Application should be based on proportionality and individual risk assessment.

7.3. Results for Probation Service staff

From the 70 Probation Service professionals included in the study, approximately 65%, or about 46 respondents, gave answers showing a lower level of legal and institutional certainty than the penitentiary group. The dominant response pattern indicates partial training and a lack of direct professional experience with persons placed under electronic monitoring. This finding is important because the Probation Service is the institution that should logically play a central role in supervising persons in the community.

Regarding knowledge of legislation, clarity of legal provisions, institutional competences and procedures for reacting to violations, the dominant response among this subgroup was the lowest evaluation on the scale. This does not mean that the Probation Service rejects electronic monitoring. On the contrary, the same respondents strongly support the measure as an effective alternative to imprisonment and as a tool that may improve the control of obligations imposed by courts.

A distinctive feature of this subgroup is that inter-institutional cooperation was evaluated positively, while technical and human capacity was evaluated very negatively. This suggests that the problem is not only or necessarily lack of communication between institutions, but lack of equipment, lack of training, absence of operational protocols and delays in response. The dominant response also supports the need for a uniform national protocol for reacting to signals and violations.

The Probation Service group also gave important answers concerning human rights. A considerable part of the dominant response pattern did not express a clear opinion on the privacy impact of electronic monitoring, while identifying the need for devices to be as non-stigmatizing as possible. This reveals a need for specific training on data protection, privacy, proportionality and the social effects of visible monitoring devices.

Table 4

Dominant response pattern among Probation Service staff

Issue measured	Dominant response among approx. 65% of the group	Interpretation
Training on electronic monitoring	Partial training	Professional preparation remains insufficient.
Direct experience with monitored persons	No direct experience	Electronic monitoring is not yet a consolidated routine practice.
Knowledge of legal framework and procedures	Very low	The Probation Service requires stronger legal and operational guidance.
Need for legislative improvement	Improvement in several aspects	The framework needs clarification and operationalization rather than only formal expansion.
Institutional instructions	No clear instructions	There is no sufficiently standardized internal implementation model.
Inter-institutional cooperation	Very good	Communication may exist, but it does not replace protocols and equipment.
Main practical problems	Lack of equipment, lack of training and delays in response	Operational capacity is the central obstacle.
Effect on court-imposed obligations	Considerable improvement expected	The measure is viewed as useful for community supervision.

7.4. Comparative interpretation of the empirical findings

The comparison between the two professional groups reveals several important findings. First, both groups accept electronic monitoring as a potentially useful measure. Professional resistance is therefore not the central obstacle. The central obstacle is institutional readiness. Second, both groups identify lack of training and lack of technical equipment as key barriers. Third, both groups support a uniform national protocol for reacting to signals and violations. Fourth, both groups connect effective implementation with individual risk assessment, although the Probation Service group expresses more uncertainty regarding privacy and data protection.

The empirical findings correspond with the comparative legal analysis. Bulgaria's model is institutionally more detailed because it connects electronic monitoring with the execution-of-sentences system, probation and house arrest. Albania's model is legally broad but operationally more fragile. The questionnaire confirms precisely this fragility: the Albanian legal framework may allow electronic monitoring, but professionals do not yet perceive the system as technically, procedurally and humanly prepared for stable nationwide implementation.

The results also show that electronic monitoring should not be introduced or expanded merely by purchasing devices. Without trained staff, a control room, clear breach protocols, data-protection rules, judicial review and reintegration programmes, the technology may generate more problems than solutions. A device can identify a signal, but only an institutionally prepared system can determine whether the signal reflects a technical error, a minor breach, a serious violation or a risk requiring immediate intervention.

Table 5

Synthesis of empirical findings and policy implications

Empirical finding	Policy implication
High acceptance of electronic monitoring as an alternative to imprisonment	The measure can be developed without major conceptual resistance from professionals.
Partial training and limited direct experience	Specialized national training is required before wider implementation.
Low perceived technical and human capacity	Equipment, monitoring infrastructure and staffing must precede expansion.
Lack of clear instructions and protocols	A binding national operational protocol is necessary.
Support for individual risk assessment	The measure should be imposed only after structured risk and needs assessment.
Concern about privacy or lack of clear position on it	Data protection and proportionality must be part of training and regulation.
Support for non-stigmatizing devices	Technical specifications should minimize social stigma and unnecessary exposure.

8. Recommendations for legislative and institutional improvement

First, both systems should require explicit individualized reasoning in every decision imposing electronic monitoring. The decision should state the legal basis, the risk being addressed, the reasons why less intrusive measures are insufficient, the duration, permitted and prohibited movements, technical obligations, review procedure and consequences of breach. Formulaic decisions undermine proportionality and increase the risk of arbitrary surveillance.

Second, Albania should strengthen the operational link between electronic monitoring and the penitentiary/probation system. The Bulgarian model of specific regulation for prisoners in open-type hostels may be useful as a reference point. Albania could consider more detailed provisions for monitored semi-liberty, conditional release, prison leave and structured transition from prison to community, provided that such measures are based on risk assessment and judicial or administrative review.

Third, Albania should adopt a uniform national protocol for electronic monitoring. The protocol should regulate installation, technical testing, permitted zones, prohibited zones, signal classification, distinction between technical failure and intentional breach, emergency response, reporting to the court or prosecutor, cooperation with the State Police and documentation of every action taken.

Fourth, training must become mandatory for probation officers, penitentiary legal staff, social care staff, police officers involved in field response and judges or prosecutors who request or impose the measure. Training should cover not only technical use of devices, but also proportionality, privacy, data protection, breach assessment, communication with the monitored person and reintegration planning.

Fifth, Bulgaria should continue to refine safeguards concerning private service providers. Technical outsourcing must not weaken public accountability. Contracts should be accompanied by transparent standards on cybersecurity, data retention, audit, staff training, emergency response and liability for technical failure. Judicial and administrative authorities should be able to distinguish genuine breach from equipment malfunction.

Sixth, both states should establish regular public reporting on the use of electronic monitoring. Relevant indicators include number of monitored persons by category, average duration, breach rates, type of breach, equipment failures, revocations, replacement of detention and recidivism after completion. Without data, policy remains rhetorical. Public reporting also helps determine whether electronic monitoring is actually reducing imprisonment or merely expanding control.

Seventh, electronic monitoring should be combined with rehabilitation-oriented measures whenever it is used for convicted persons or long-term supervision. This includes individual treatment plans, employment support, addiction treatment, family counselling, education and structured contact with probation officers. The more the measure is used beyond short-term procedural control, the stronger the need for reintegration content.

Eighth, both systems should ensure independent oversight. Monitoring agencies, control rooms and private providers should be open to inspection by competent public authorities and, where appropriate, independent human rights bodies. Complaints mechanisms must be accessible to monitored persons, particularly in cases involving technical errors, disproportionate restrictions, health problems or interference with family life and employment.

9. Conclusion

Electronic monitoring is neither a technological miracle nor a disguised form of freedom. It is a restrictive criminal justice measure that can be justified only when it is lawful, necessary, proportionate and connected to legitimate aims. The comparison between Bulgaria and Albania shows two different legislative strategies. Bulgaria has built a more integrated execution-of-sentences model, expressly covering prisoners in open-type prison hostels, probationers and persons under house arrest, with detailed statutory and implementing provisions. Albania has adopted a broad judicial-control model through a special law applicable to persons whose movement is restricted by judicial decision.

The Bulgarian model is stronger in systematic integration and regulatory detail. The Albanian model is stronger in formal breadth, but it requires more consistent implementation, clearer operational standards and stronger connection with prison-transition mechanisms. Both systems face the same deeper challenge: electronic monitoring must not become a cheap expansion of penal control. Its value lies in replacing unnecessary custody, supporting structured reintegration and protecting public safety without disproportionate interference with private life.

The empirical questionnaire confirms the core thesis of the study. Professionals in the Albanian system largely accept electronic monitoring as a useful alternative to imprisonment and as a tool for community supervision. However, they also identify a significant gap between the legal possibility of using the measure and the real institutional capacity to implement it. The findings show partial training, lack of direct experience, insufficient equipment, absence of clear instructions, weak operational protocols and the need for better protection of personal data and privacy.

The future of electronic monitoring in Bulgaria and Albania should therefore be guided by a simple principle: technology may assist criminal justice, but it must not define it. The law must define the purpose, the limits and the safeguards. Probation and prison authorities must provide professional supervision. Courts must control necessity and proportionality. Only under these conditions can electronic monitoring function as a legitimate and effective part of modern penitentiary policy.

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Appendix A. Questionnaire instrument used in the empirical study

The following condensed instrument reflects the questionnaire administered to the professionals included in the study. The original questionnaire was administered in Albanian and included closed alternatives, Likert scales and one open final item.

No.	Section	Question / item measured
1	General data	Institution where the respondent works.
2	General data	Sector or service: Social Care Service, Legal Sector, Probation Service, managerial position or other.
3	General data	Professional experience.
4	General data	Training received on electronic monitoring.
5	General data	Direct or indirect experience with persons under electronic monitoring.
6	Legal knowledge	Knowledge of Albanian legislation on electronic monitoring.
7	Legal knowledge	Clarity of legal provisions regulating electronic monitoring.
8	Legal knowledge	Clarity of institutional competences.
9	Legal knowledge	Clarity of procedures for responding to violations.
10	Legal knowledge	Need for improvement of current legislation.
11	Practical implementation	Existence of clear institutional instructions.
12	Practical implementation	Technical and human capacity for implementation.
13	Practical implementation	Inter-institutional cooperation.
14	Practical implementation	Main implementation problems.
15	Practical implementation	Need for a uniform national protocol.
16	Effectiveness	Electronic monitoring as an effective alternative to imprisonment.
17	Effectiveness	Contribution to reducing prison overcrowding.
18	Effectiveness	Contribution to family relations, employment and reintegration.
19	Effectiveness	Need to combine monitoring with rehabilitative, social and psychological programmes.
20	Effectiveness	Need for individual risk assessment before imposing electronic monitoring.
21	Human rights	Possible interference with private life.
22	Human rights	Most important safeguards: judicial control, information, time limits, data protection, restricted access, appeal and non-stigmatizing devices.
23	IEVP staff only	Most suitable cases for the use of electronic monitoring in penitentiary practice.
24	Probation Service only	Expected improvement of control over court-imposed obligations.
25	Final open question	Main recommendations for improving electronic monitoring in Albania.

Author declaration

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