


# Management in Modern Cynology and Canine-Assisted Therapy: A Comparative Analysis of the USA and European Models and Prospects in Ukraine

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## Abstract

*Background.* Small-breed companion dogs account for an increasing share of the European and North American companion-animal markets, and the institutional regimes that govern their breeding and deployment in canine-assisted therapy (CAT) differ in ways that have not been systematically compared for Ukraine. *Aim.* Contemporary cynological management in Germany, the United States, the United Kingdom, and Ukraine is compared, with particular attention to small-breed CAT, and institutional steps for the Ukrainian sector are identified. *Methods.* A qualitative documentary analysis was conducted on primary statutory instruments, kennel-club regulations, and publicly reported market data for the four jurisdictions; the empirical material covers the author's kennel records and 24 months of volunteer activity (2022–2024) with the Malteser Hilfsdienst “Besuchsdienst mit Hund” programme in Lübeck, Germany, reported as a small, uncontrolled, single-site pilot with nursing-staff observations on an internal (non-validated) form. *Results.* In the three reference jurisdictions the sector operates under licensing regimes, mandatory health testing, and consumer-protection statutes; the Ukrainian framework, which has been developing within the Fédération Cynologique Internationale (FCI) system over recent decades, has not yet reached equivalence on statutory control of breeders operating outside the organised kennel system. An audio-visual stimulation mat currently undergoing patent examination is reported as a design and feasibility description only; no efficacy claim is advanced. *Conclusions.* A convergent institutional profile for Ukrainian cynology is proposed, covering welfare standards aligned with international kennel-club practice, postgraduate breeder training, and certified CAT teams operating under the national kennel organization.

**Keywords:** cynological management; canine-assisted therapy; animal welfare regulation; small-breed dogs; comparative institutional analysis; breeder licensing; consumer-protection remedies; rehabilitation.

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## 1. Introduction

Cynology, understood as the scientific study of the domesticated dog (Topál et al., 2014; Tsvigun et al., 2020), was for most of its history a predominantly descriptive field concerned with breed origins, working applications, and

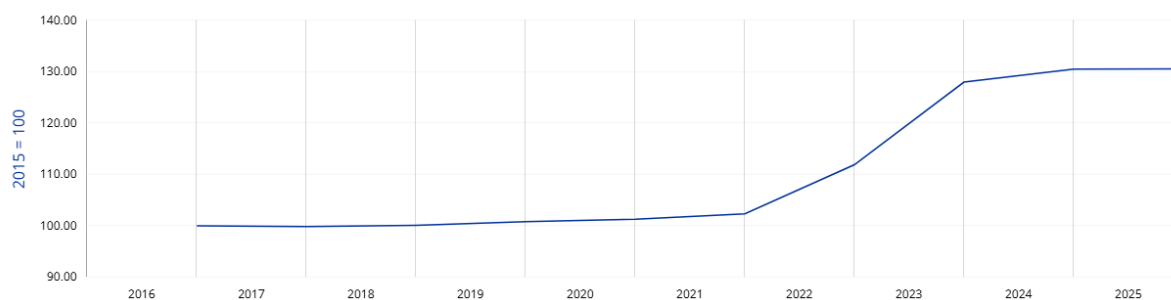
registry organization (Seliukov, 2020). During the twentieth century the institutional character of dog breeding changed markedly. Capital investment, formalized standards, and regulatory oversight came to shape daily practice, and the dog itself acquired a new legal and economic status within

a network that includes the kennel club, the buyer, the therapy programme, and the state regulator (Miklósi & Topál, 2013). Experimental work on canine cognition has documented that domesticated dogs decode human attentional and emotional cues at a level that other domesticated species do not reach (Kaminski et al., 2017; Topál et al., 2014). This sensitivity has contributed to the concentration of contemporary demand around small-breed companion dogs suitable for high-density urban households.

The quantitative picture in the companion-animal market is consistent with that direction. North America retains a leading position in the small-breed segment, and European countries have shown steady growth in household ownership over recent decades. Future Market Insights (2025) projects that the global small-breed dog-food market will grow from approximately USD 38.6 billion in 2025 to

approximately USD 63.2 billion by 2035, at a compound annual growth rate of approximately 5.1%. The Eurostat Harmonised Index of Consumer Prices for products for pets (series ICP.M.U2.N.093420.4.INX, Euro area) rose from 100.11 in 2018 to 130.52 in 2024 on a 2015 = 100 presentation base, a cumulative increase of approximately 30.4% over the period, with the most pronounced year-on-year acceleration occurring between 2021 (102.35) and 2023 (127.99) and reflecting the post-pandemic rise in input and service prices within the pet-care value chain (Figure 1). Country-level figures show considerable variation across the European Union: Hungary recorded the highest proportion of dog-owning households, with nearly half of all households owning at least one dog in 2023, and Germany reported the largest absolute dog population at over 10 million in 2022 (Statista Research Department, 2023).

■ HICP - Products for pets, Euro area, Monthly



Source: EUROSTAT

EUROPEAN CENTRAL BANK | EUROSISTEM

<https://data.ecb.europa.eu>

**Figure 1. Eurostat Harmonised Index of Consumer Prices — products for pets, Euro area, annual values, 2015 = 100. Source: ECB Data Portal, series ICP.M.U2.N.093420.4.INX.**

The Fédération Cynologique Internationale (FCI) provides additional structural context. As of early 2024, FCI reporting covered approximately 100 national canine organizations and contract partners worldwide and published comparative figures on pedigree and non-pedigree dogs by country, on club categories, on judges by area of specialization, and on owner numbers from 2019 onward (FCI, 2024). The occupational profile of the cynologist has broadened over the same period and now includes breed management, veterinary literacy, zootechnics, and competence in the marketing dimension of the industry.

Comparative institutional analyses of Ukrainian cynology alongside established reference systems remain limited, and no single source brings together the statutory, kennel-club,

and canine-assisted therapy (CAT) dimensions for Ukraine in relation to the three reference jurisdictions. This gap is addressed here through three research questions: (i) how do the U.S., German, British, and Ukrainian statutory and kennel-club frameworks compare on breeder licensing, mandatory health testing, housing standards, and consumer-protection remedies; (ii) what institutional conditions are associated with CAT programmes that incorporate small-breed dogs; and (iii) which institutional steps are indicated for Ukrainian cynology on the basis of the comparative reading. Earlier work by the present author (Kovalenko, 2025) reported that CAT outcomes in the United States and Germany depended on the integration of management standards into kennel-club operations; that reading is extended here to the national-level organization of the sector.

## 2. Materials and Methods

A qualitative documentary analysis was conducted on primary statutory instruments in their currently in-force form: the United States Animal Welfare Act with supporting documentation from the Animal and Plant Health Inspection Service (APHIS), the German Tierschutzgesetz and Tierschutz-Hundeverordnung in their currently amended versions, the British legislative and kennel-club framework operating outside the FCI through The Kennel Club (also known as the Royal Kennel Club), and the Ukrainian Law on the Protection of Animals from Cruel Treatment (2006, as amended). Primary statutes were retrieved directly from official government portals (gesetze-im-internet.de for Germany, congress.gov for U.S. bills, legislation.gov.uk for the United Kingdom, zakon.rada.gov.ua for Ukraine) between June 2024 and February 2026 in the latest consolidated versions available at that time. Kennel-club rules were retrieved from the published regulations pages of each national organization during the same period. Documents were screened for provisions on four domains: breeder licensing, mandatory health testing, housing and welfare standards, and consumer-protection remedies. Provisions outside these four domains were excluded. A supplementary four-column matrix summarising the screened instruments is available on request. Market-demand data for the small-breed segment were retrieved from Eurostat via the ECB Data Portal, Statista, and Future Market Insights, with each data point cited at the point of use. On the analytical side, the study combined standard population-biology concepts of effective population size and pedigree-based genetic diversity (Leroy et al., 2013; Lewis et al., 2015) with a kennel-level strategic-management framework applied to small-breed operations.

The economic comparison reported in Table 1 presents profile-level financial indicators drawn from the author's own kennel records (2019–2024) as a single-kennel, non-audited case description. Litter size was held constant at five puppies between the two profiles, and the direct investment line items shown (health testing, socialisation or training) are the lines that differ between profiles. Fixed kennel overheads common to both profiles (dam maintenance, stud service, facility costs) are commercially sensitive and are not disclosed in this paper; for this reason the return-on-investment indicator in Table 1 is reported qualitatively and not as a precise percentage. The enquiry-to-sale conversion rate and the return rate are reported as business-quality

indicators (purchaser screening and product quality, respectively) and not as direct revenue multipliers.

The canine-assisted therapy component was developed through 24 months of volunteer activity (2022–2024) with Malteser Hilfsdienst Lübeck within the “Besuchsdienst mit Hund” programme. It is reported here as a small, uncontrolled, single-site pilot of bedridden patients in long-term care facilities who received weekly therapy visits with small-breed therapy dogs, and who were additionally exposed to the audio-visual stimulation mat described in the Results section. Post-session assessments were completed by the attending nursing staff on the facility's own internal observational form for psycho-emotional state, covering alertness, mood, engagement, verbal response, physical responsiveness, and post-session calmness on an ordinal scale; the form is not an externally validated instrument. Individual patient counts are not released at this stage to preserve anonymity during the ongoing patent examination of the stimulation mat, and observations are reported at programme level as qualitative trends. The design has no randomisation, no blinding, and no control group; all sessions were conducted by a single handler; and the findings are reported on that basis.

## 3. Results

Contemporary management standards in the sector developed from the institutional history of the FCI. The federation was founded on 22 May 1911 by representatives of Germany, Belgium, France, the Netherlands, and Austria for the unification of breed standards and the mutual recognition of pedigrees (FCI, 2024). After a break during the First World War the federation was reconstituted in 1921, and it currently federates more than 90 countries, each represented by a single national kennel union, including the Kennel Union of Ukraine and the Verband für das Deutsche Hundewesen (VDH) in Germany (VDH, n.d.). The FCI maintains a common regulatory and informational space, within which binding technical rules govern the training of breeders and judges and within which comparable data on pedigree recognition, judges, and owner numbers are published for member jurisdictions (FCI, 2024).

The United States reached a comparable structural level along a different institutional path. The American Kennel Club (AKC) occupies a central position in the non-governmental component of the sector (AKC, n.d.) and maintains close cooperative relations with the FCI despite its non-membership. Federal regulation of commercial breeders is handled under the Animal Welfare Act, with enforcement delegated to APHIS within the United States

Department of Agriculture (USDA) (AKC, n.d.). At state level, pet lemon laws grant buyers legal recourse against breeders who sell puppies with undisclosed health conditions and require extended health guarantees, with no direct European analogue. In jurisdictions where such remedies apply, genetic screening and formal health certification are routine components of commercial breeding practice (Hsu & Serpell, 2003; Sandøe et al., 2017).

Several developments in the United States during 2025 point to further activity on this baseline. As of October 2025, three legislative initiatives were pending before the United States Congress: the Better CARE for Animals Act (H.R. 3112 / S. 1538), Goldie's Act (H.R. 349), and the Puppy Protection Act (H.R. 2253); USDA APHIS Animal Care published regulatory activity schedules over the same period relating to its Animal Welfare Act licensing and inspection programme (AKC, 2025). Related comparative work on commercial breeding documents the behavioural and welfare outcomes associated with pet-store and commercial-breeding channels that the responsible-breeder model is designed to correct (McMillan, 2017; McMillan et al., 2013).

The German regulatory framework has operated a comparable system for several decades. The Tierschutzgesetz (Animal Welfare Act, 1972, as amended) and the Tierschutz-Hundeverordnung (Animal Welfare Dog Ordinance, 2001, revised 2022) assign legal standing to the dog under animal-welfare law, which provides the basis on which organizations such as Malteser Hilfsdienst organise practical work, including the preparation of handler-and-dog teams for visiting-service programmes under nationally defined welfare requirements. Operational management of a kennel under the German system requires facility certification, completion of specialised breeder training, and regular veterinary inspection (VDH, n.d.).

The British system has an institutional trajectory of its own. The Royal Kennel Club, the oldest organization of its kind, operates outside the FCI framework and places particular weight on owner-directed education; it maintains a structured programme on canine health and welfare covering symptom recognition and recommended responses for non-specialist owners and for professionals, with specific attention to management of the reproductive cycle and to welfare problems associated with extreme brachycephalic conformation and with inherited defects linked to breed-standard selection (Asher et al., 2009; O'Neill et al., 2020; Packer et al., 2019).

Ukrainian regulatory development has proceeded on a shorter timescale. The Kennel Union of Ukraine has implemented international breeding standards through internal regulations aligned with its status in the FCI system (Kovalenko, 2025). The principal area in which Ukrainian statutory provision has not yet reached equivalence with EU practice concerns breeders operating outside the organised kennel system, for whom effective statutory control is limited and consumer-protection remedies are correspondingly weak (Overgaauw et al., 2020).

On the market side, the small-breed segment, represented by breeds such as Chihuahua, Papillon, and Maltese, has been among the more stable growth categories within the companion-dog sector; urban compatibility and lower feeding and housing costs both contribute to that position. Small-breed kennel management operates under a specific clinical profile. In the Chihuahua, for example, monitoring of molera (persistent open fontanelle) closure and of dental development has material consequences for the market value of individual animals (O'Neill et al., 2020). Buyer preferences in the United States and European Union markets have shifted towards phenotypic and behavioural predictability in acquired dogs, and this shift corresponds with increased use of expert-qualified breeder-managers (Mornement et al., 2015; Sandøe et al., 2017).

The financial and operational consequences of this shift are documented in the author's own kennel records for the 2019–2024 period. Two operating profiles were run within the same kennel on a constant five-puppy reproductive cycle: a traditional low-cost profile with minimal health and behavioural investment, and an expert value-based profile incorporating genetic screening, health certification, and CAT-oriented early socialisation. With litter size and fixed kennel overheads held constant, the expert profile added USD 1,100 of per-cycle outlay in testing and socialisation relative to the traditional profile (Table 1). Over the same period, average sale price under the expert profile rose to USD 2,200 per puppy from USD 800 under the traditional profile, the enquiry-to-sale conversion rate rose from 10% to 25%, and the return or complaint rate fell from 15% to below 2%. Because fixed kennel overheads are commercially sensitive and not disclosed, the comparison is reported as a single-kennel case description rather than as a market-representative estimate; within that case, the directional gradient indicates that buyer screening, reputation, and complaint exposure respond more strongly to certified health and behavioral inputs than to price-setting alone.

**Table 1. Single-kennel case comparison of two cynological management profiles over one reproductive cycle (author's own records, 2019–2024; non-audited)**

Performance indicator	Traditional (low-cost) profile	Expert (value-based) profile	Comment
Investment in health and testing	USD 200	USD 800	Genetic screening, health certificates
Socialisation or training expenditure	USD 0	USD 500	CAT-oriented courses, early-puppy programmes
Average sale price per puppy	USD 800	USD 2,200	Added value from selection and functional outcomes
Enquiry-to-sale conversion rate	10%	25%	Reflects trust in a certified brand
Return or complaint rate	15%	Below 2%	Health-tested stock and stable temperament
Qualitative ROI over one cycle	Lower (reference base)	Higher (clearly above reference)	Rank comparison only; see note

**Source:** Author's own kennel records (2019–2024), covering kennel practice and CAT activity with AKC and Malteser certification costs. Figures are drawn from a single kennel and are not externally audited. ROI is reported qualitatively and not as a precise percentage because a fixed kennel overhead common to both profiles (dam maintenance, stud service, facility costs) is commercially sensitive and not disclosed; litter size is held constant at five puppies.

Direct investment under the expert-led profile in Table 1 is approximately 6.5 times higher than under the traditional profile (USD 1,300 against USD 200), with a qualitatively higher ROI per reproductive cycle as reported in the table. Certification and health-testing inputs support a documented therapeutic profile for individual animals in addition to conformation-grade status. Practical activity with service dogs in the Ukrainian penitentiary system and with volunteer programmes of Malteser Hilfsdienst e.V. in Germany supported the transfer of behavioural-management competence across breeds and operational contexts (Ambrosi et al., 2019; Bernabei et al., 2013).

At the Malteser Hilfsdienst Lübeck branch, small-breed therapy dogs were introduced into visits with bedridden patients and the intervention was paired with an original audio-visual stimulation mat currently undergoing patent examination. The novelty claim advanced in this paper is confined to the design and the feasibility of the mat in the visiting-service context; no efficacy claim is made. The mat is a portable, low-profile rectangular surface of approximately 60 × 40 cm, scaled to the body dimensions

of small breeds, and integrates programmable auditory stimulation (calming tones and nature-based soundscapes) with dimmable, low-intensity patterned visual illumination. In a typical session the mat is positioned on the patient's bed at arm level so that the therapy dog occupies the mat and the patient can interact without changing posture (Photo 1). Full technical specifications are not disclosed at this stage pending patent examination. The device addresses a specific access problem: patients with severely restricted mobility cannot participate in conventional CAT sessions that depend on the dog approaching from a standard upright posture and being touched, and their exclusion removes much of the clinical benefit that such sessions are expected to deliver (Beetz et al., 2012; Hediger et al., 2019). The modified protocol was delivered as a small single-site pilot over the 2022–2024 period; patient counts at the individual level are not released at this stage to preserve anonymity during ongoing patent examination. Programme-level observations recorded by nursing staff on the facility's internal psycho-emotional form are reported here descriptively and without inference of therapeutic effect (Ein et al., 2018; Kamioka et al., 2014).



**Photo 1. CAT session in a rehabilitation centre with a certified handler and a specifically trained small-breed dog.**  
**Source: Author.**

#### 4. Discussion

Contemporary cynology combines veterinary genetics, ethology, ethics, marketing, and social rehabilitation, and professionalization in the sector reflects an institutional adjustment to this broader remit. The comparative evidence presented above indicates that two converging pressures have shaped the current regulatory direction. Animal-welfare considerations have been translated into legally binding obligations within the European Union and into a growing federal regulatory priority in the United States (AKC, 2025; Tierschutzgesetz, 1972). Demand has concentrated on small companion breeds whose typical owner demographic (older adults and urban or single-person households) overlaps with the primary beneficiary population for canine-assisted therapy (Overgaauw et al., 2020; Serpell et al., 2017). The combined effect raises the qualification threshold for breeders operating in the small-breed therapy-relevant segment. The pending U.S. federal reforms and the long-standing European regulatory culture define daily breeder obligations of comparable substance in the two systems, notwithstanding their different legal origins. The stable reputation of the German market for quality and ethical breeding across the European Union can be read as a long-term result of that regulatory intensity (VDH, n.d.).

The clinical evidence base for CAT in the populations relevant to this paper is sufficiently developed to support the operational choices discussed above, with systematic-review evidence documenting therapeutic effects for elderly patients with depression, anxiety, and dementia-spectrum conditions (Ambrosi et al., 2019; Bernabei et al., 2013; Kamioka et al., 2014), for patients with acquired brain injury (Hediger et al., 2019), and across heterogeneous populations examined for physiological and subjective stress responses (Ein et al., 2018). The Lübeck case contributes an implementation example and not a new causal claim. The audio-visual stimulation mat modifies the physical layout of the therapeutic encounter so that patients who cannot adopt an upright posture remain able to engage with the therapy dog; in doing so, it extends programme access to a subgroup that conventional CAT protocols would otherwise exclude, and the qualitative programme-level observations reported in the Results section are framed by that access-expansion objective. Those observations are uncontrolled case-series impressions that are consistent with the direction of the meta-analytic CAT literature without constituting independent evidence of causal effect.

The American and continental European models share overall direction, with the difference lying mainly in emphasis: the American model integrates cynology into the wider service economy and supplies individual expert

support from genetic-line planning to lifetime owner follow-up (Hsu & Serpell, 2003; McMillan, 2017). The continental European model, anchored by the FCI and the VDH, places greater weight on breed-standard compliance and on the outcomes of conformation and working evaluations. A convergent professional profile is one that combines the service orientation of the American system with the standards discipline of the continental European system, and produces a cynology manager competent in biological-asset planning and in partnership with therapeutic programmes, with working expertise in consumer-protection provisions.

For Ukraine the workforce implications of this convergent profile are considerable, since the integration of postgraduate academic training in cynology with extended field expertise reduces the risks most relevant to small-breed operations, which concern genetic pathologies and behavioural deviations, while the supply of professionals combining cross-cultural communication competence with working familiarity with international veterinary protocols remains limited. The United States experience suggests that the future of the Ukrainian sector depends on the construction of a transparent quality-assessment system in which cynological experts function as formal guarantors of ethical breeding practice under the auspices of the national kennel organization.

Several limitations apply to this analysis, beginning with the economic comparison in Table 1, which is drawn from the cost and revenue structure of a single kennel operation and is reported as a case description rather than a market-representative estimate; the underlying cost and revenue assumptions would need multi-kennel replication before they could be treated as representative, and the fixed overhead figure is not disclosed. The CAT findings are drawn from a small, uncontrolled, single-site pilot with nursing-staff-administered observation, without randomisation, blinding, a control group, a validated outcome instrument, or disclosure of patient counts at this stage; multi-centre replication with a validated instrument, and a formal comparative cost-effectiveness analysis of mobile CAT programmes against conventional nursing-home rehabilitation, are appropriate next steps. All sessions were conducted by a single handler, which introduces a handler-effect confound; observer bias, the Hawthorne effect, cohort selection of patients clinically able to tolerate visits, and artefacts attributable to a non-validated observational form are additional sources of potential bias that are not excluded by the present design. The regulatory and commercial response to the 2025 United States federal

reforms will require further observation after the reforms have been enacted.

## 5. Conclusion

The comparative examination of cynological management across the FCI framework, the United Kingdom, the United States, and Ukraine supports the conclusion that a professionalised sector has become a precondition for participation at international standards. Strategic management under current conditions combines elements of documented housing, feeding, and breeding standards; of customer-directed service aligned with national-club membership; and of welfare requirements consistent with international norms. Expert knowledge qualifies a breeder to operate across that full range. For the Ukrainian sector, two priorities are indicated: legislative harmonisation with international welfare standards, and development of an independent expert-audit system under the auspices of national kennel organizations. The use of purpose-trained dogs, particularly small breeds, in the rehabilitation of patients with complex health conditions is one important direction for that development, because welfare standards, management discipline, and documented clinical outcomes are all involved in such programmes. The concentration of market demand around small-breed companion dogs and the corresponding qualification requirements for breeders active in that segment are consistent with alignment of Ukrainian professional cynology with reference standards in the United States and the European Union, in which a demonstrable record of animal health, welfare, and therapeutic competence is among the core professional assets available to a kennel operation.

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