BioSecure

Enhanced and cost-effective biosecurity in livestock production

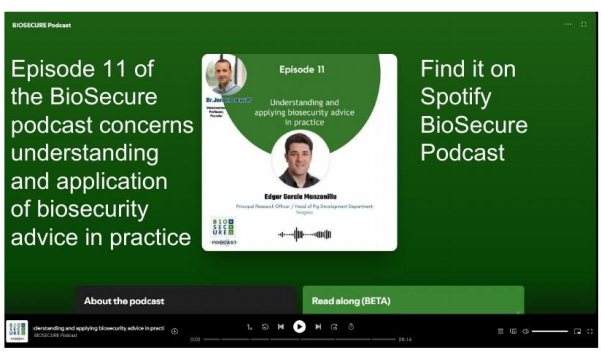
PRACTICE ABSTRACT # 40

Implementing FAIR Principles in Biosecurity Assessment Guidelines

BioSecure has analyzed the integration of digital tools and framework guidelines to overcome data fragmentation in animal health. While numerous biosecurity guidelines exist across Europe, the evaluation methods they utilize are often locked in isolated repositories or restricted formats, limiting their practical impact. This fragmentation prevents a unified response to transboundary diseases and reduces the effectiveness of national monitoring programs.

To maximize the value of livestock research, new framework guidelines focus on making biosecurity assessment data FAIR (Findable, Accessible, Interoperable, and Reusable). Applying FAIR principles involves indexing assessment tools in open-access databases, standardizing veterinary terminology across borders, and ensuring technical compatibility between different digital evaluation platforms. This methodology bridges the gap between academic research and commercial farm production systems.

The approach allows scientists, software developers, and national authorities to seamlessly share biosecurity insights. By unifying these data structures, sectors can benchmark farm data globally, establish harmonized policy indicators, and rapidly adapt farm-level protocols to emerging epidemiological threats. Furthermore, it supports the transition from manual, paper-based auditing to automated, data-driven decision systems.



- Standardized framework transforms fragmented biosecurity guidelines into open data structures
- Application of FAIR principles enables seamless cross-border data exchange and benchmarking
- Interoperable systems accelerate the development of interconnected digital risk assessment tools

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