



# Emergencies and Animal Genetic Resources



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Joint Session – ERFP Working groups meeting

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## Outline

- A changing epizootic landscape — more sudden, more frequent
- **Opening case study: Lumpy Skin Disease in Italy and France (2025) — two countries, different responses**
- Local & small-population breeds: the most vulnerable
- Importance of AnGR monitoring & early warning systems — FAO GPA & tools (EMPRES-i / DAD-IS)
- ERFP risk indicators, geolocation work & the upcoming EURC guideline
- ERFP / EURC recommendations — key documents
- Heterogeneous legislative frameworks across the European region
- Emergencies expose our organisational gaps
- Towards a joint webinar — Autumn 2026 & project opportunities



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## A rapidly changing epizootic landscape

(example between 2025 and 2026 WG meetings)

<h1 style="font-size: 48px; margin: 0;">6+</h1> <h3 style="margin: 10px 0;">Active diseases in Europe</h3> <hr style="width: 50%; margin: 5px auto;"/> <p style="margin: 0;">Influenza – Avian (HPAI) African Swine Fever Lumpy Skin Disease Bluetongue Sheeppox West Nile Fever</p>	<h1 style="font-size: 48px; margin: 0;">30+</h1> <h3 style="margin: 10px 0;">Countries hit by HPAI</h3> <hr style="width: 50%; margin: 5px auto;"/> <p style="margin: 0;">2020–2025: largest poultry epizootic in recorded history</p>	<h1 style="font-size: 48px; margin: 0;">↓</h1> <h3 style="margin: 10px 0;">Shrinking response window</h3> <hr style="width: 50%; margin: 5px auto;"/> <p style="margin: 0;">From detection to mandatory measures: days, not weeks</p>
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*More sudden, more frequent — shorter windows to act*

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## Case study: Lumpy Skin Disease (LSD) — 2025

First ever outbreaks in Italy & France — same disease, different national responses

June 2025: LSD confirmed in Sardinia (Italy) then in Savoie/Haute-Savoie (France) — first occurrences ever in both countries · Category A disease under EU Animal Health Law (Reg. 2016/429)

Italy	France
<ul style="list-style-type: none"> <li>Sardinia: extensive outbreak — systematic herd culled, disinfection</li> <li>Lombardy: single secondary outbreak traced from Sardinia — rapidly contained by culling</li> <li>EU vaccine bank mobilised (350,000 doses)</li> <li>Ring vaccination + strict traceability (2,000+ cattle traced)</li> <li>Outcome: limited spread, rapid containment</li> </ul>	<ul style="list-style-type: none"> <li>First infection; delay of reaction from policy makers</li> <li>Multiple regions affected: Savoie, Haute-Savoie, Rhône, Jura, Occitanie...</li> <li>Policy: whole-herd culling even in vaccinated herds → farmer protests</li> <li>Mass emergency vaccination + movement restrictions</li> <li>Scientific debate: targeted vs total slaughter</li> <li>Outcome: ~147 outbreaks by Sept. 2025; broader social impact</li> </ul>

**⚠ Key lesson: same EU legal framework, different national implementation —local breeds caught in between**

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## LSD & endangered breeds: why the challenges are so high

*Do the most exposed breeds possess sufficient resilience?*



### Geographically confined

Local breeds in Sardinia, Alpine valleys or mountain areas are concentrated in the very zones first hit by LSD — very difficult to relocate



### Small effective population sizes

Even a single herd culling event can represent 10–30% of a breed's total effective population



### No legal differentiation

Category A rules require stamping-out of all susceptible animals in the holding — no automatic exemption for endangered breeds



### Movement bans block rescue

Restricted zones prevent transfer of semen or animals to ex situ conservation centers at the most critical moment



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## Early warning tools: EMPRES-i & DAD-IS overlap

*Matching disease alert maps with geolocated breed population data*

### EMPRES-i (FAO)

Global Animal Disease Information System

- Maps disease events in real-time across 190+ countries
- Integrates with One Health / FAO geospatial platform
- Updated continuously from WAHIS/WOAH notifications

### DAD-IS (FAO)

Domestic Animal Diversity Information System

- 15,000+ national breed populations from 182 countries
- Tracks risk status & population sizes over time
- Geolocated when national data allows — key for overlap analysis



**The key synergy: overlaying EMPRES-i disease alerts on DAD-IS geolocated breed data**

When breed population data is geolocated in DAD-IS, it can be superimposed on EMPRES-i disease event maps → **instantly identifying which endangered breeds fall within a restricted zone, vaccination zone or high-risk area.**

**⚡ This is only possible if breeds are properly geolocated — which is why the ERFP geolocation work is critical**



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# ERFP risk indicators, geolocalisation & the upcoming EURC guideline

*From research outputs to operational tools for emergency preparedness – some stones*

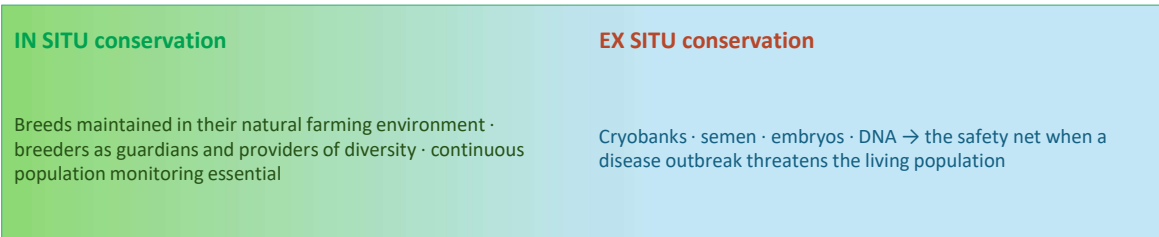
<p>2011 ERFP</p>	<p><b>Task Force: Risk Status &amp; Indicators</b> Encourage the harmonisation of breed endangerment criteria across European countries · linking population trends to risk categories – multi criteria indicator</p>
<p>2010s ERFP/EEA/FAO</p>	<p><b>Geolocation of breed populations</b> A key to allow mapping of local breeds in EFABIS/DAD-IS · enabling overlap with disease risk maps (EMPRES-i)</p>
<p>2024 FAO</p>	<p><b>SDG 2.5.2 Indicator</b> &gt;80% of EU local breeds with known status classified at risk of extinction · monitoring now linked to European biodiversity targets</p>
<p>2025–26 ERFP-EURC-EAB</p>	<p><b>Upcoming guideline on Indicator for AnGR</b> ERFP indicator work &amp; geolocation methods being integrated into the future EURC-EAB guideline on indicators</p>

**EURC Guideline will operationalise ERFP's coordination work → enabling real-time breed vulnerability assessment during outbreaks**

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# Monitoring & conservation: in situ + ex situ as a safety net

*FAO Global Plan of Action — Strategic Priority*



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## FAO · ERFP · EURC Recommendations

### *Safeguarding endangered breeds before and during disease outbreaks*



#### Prioritise vaccination

Endangered breeds within a vaccination zone should receive highest priority per Commission Delegated Regulation (EU) 2023/361



#### Urgent genetic material collection

Rapid epididymal semen collection from at-risk flocks before contamination — field protocols available (ERFP AHA Workshop)



#### Legislative derogations

Art. 13(2) of Delegated Reg. (EU) 2020/687 allows derogations from culling for endangered breeds · EURC-EAB guide available



#### Fund cryobanks durably

Establish sustainable funding for mid/long-term cryopreservation of semen & embryos for all endangered breeds



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## Key reference documents

### *Regulatory texts and practical guides to know*

EU Regulation

**Delegated Reg. (EU) 2020/687 — Art. 13(2)**

Derogations from culling for endangered breeds in Category A outbreaks

EU Regulation

**Delegated Reg. (EU) 2023/361**

Priority vaccination for endangered breeds within vaccination zones

EU Regulation

**Implementing Reg. (EU) 2018/1882**

List of Category A diseases — mandatory reference list

EURC-EAB Guide

**Guidelines — sanitary regulations for gene bank material**

Legal framework for derogations needed to establish cryobanks

ERFP Workshop

**AHA Workshop — Small Ruminant Semen Cryopreservation**

Field protocols for emergency collection (epididymal semen)

FAO GPA

**Global Plan of Action for Animal Genetic Resources**

Strategic Priority: Early Warning &amp; Response System for AnGR



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## Heterogeneous frameworks across the European region

*Not all countries share the same regulatory context*

### Well prepared

Formalised AnGR emergency plans · operational cryobank · field collection protocols · dedicated funding · geolocation of breeds in national databases

### Partially adapted

Partial regulatory framework · ongoing efforts but gaps in derogations or funding · cryobank exists but not activated for emergencies

### Not yet covered

No dedicated plan for endangered breeds · no cryobank · legislative framework not adapted to emergency situations · breeds not geolocated

→ *Harmonisation and cross-country experience sharing are essential*



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## In an emergency, we are never well enough prepared

*Lessons from recent epizootics*

- **Response windows too short: mandatory measures apply within days of detection — no time to build a plan from scratch**
- Cryobanks not activated or under-equipped at the critical moment — or simply non-existent
- Emergency funding absent or too slow to mobilise for genetic material collection
- Breed information, population data not up to date in DAD-IS / EFABIS — identification of at-risk breeds delayed
- **Communication between animal health authorities and AnGR managers often fails at the critical moment**
- Are all European countries face the same challenges and solutions?



*In a health emergency, breed conservation is always the last priority — yet it is precisely what should have been planned in advance.*

— Fieldwork feedback, breeders & AnGR managers




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## Joint webinar — Autumn 2026


*Sharing national experiences · building a coordinated European response*

### ERFP · EURC · ATF — Joint webinar proposal


Emergencies & Animal Genetic Resources: national experiences, tools, best practices — across the full European region




Map national situations  
(legal, cryobanks,  
emergency plans)



Share experiences  
from recent epizootics



Identify collaboration  
groups & project partners



Produce actionable  
European levers



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## How to get involved

*Working Groups, National Coordinators & project opportunities*

### ✓ Already on board

A core group of motivated experts from several countries is already forming to co-organise this webinar.

### 👤 What we need from you

Ideas for presentations · national case studies · lived experiences  
· priority topics to cover across multiple countries & contexts.

🔑 "Health risk / sanitary risk" is a major keyword in upcoming calls for projects — identify groups ready to respond

- Each Working Group (WG) is a relay: identify potential speakers from its network — EU & non-EU countries
- National Coordinators (NCs) are invited to stimulate presentation proposals at national level
- Aim: contributions from multiple countries per topic (legislation, cryobanks, field cases, non-EU frameworks)
- Expressions of interest to co-organise or present are welcome now — contact the ERFP Secretariat!



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## In summary — 3 key messages

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### Anticipate, don't react

Endangered breeds must be identified, inventoried and protected BEFORE an epizootic strikes. Emergencies leave no time to build a plan.

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### In situ + Ex situ = safety net

The complementarity of both approaches is the only guarantee of preservation during a major disease crisis. Geolocation of breeds makes this operational.

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### Together — ERFP · EURC · ATF · the full European region

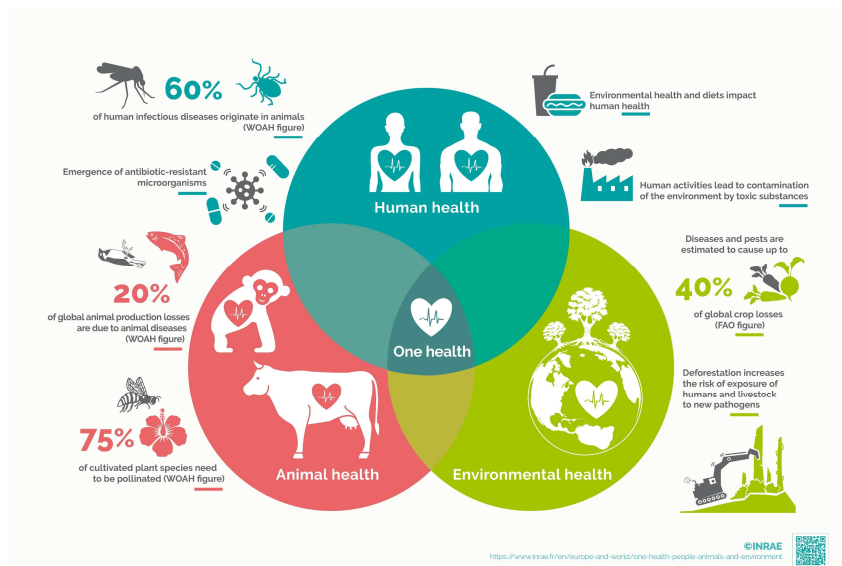
The Autumn 2026 webinar is a unique opportunity to share, coordinate and build joint projects. All countries welcome — NCs, WG Experts and your community

 Your suggestions, national case studies and expressions of interest are welcome



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## One Health has to integrate Animal Genetic resources Health !



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