



## Standing Group of Experts on HPAI in Europe

under the GF-TADs umbrella

### The second meeting (SGE HPAI-2)

30 September 2024, Samarkand, Uzbekistan

## REPORT

### Summary

The second meeting of the Standing Group of Experts on HPAI (SGE HPAI-2) was organised in the margins of the 31<sup>st</sup> WOA Regional Conference for Europe in Samarkand, Uzbekistan on 30 September 2024.

In total, 32 SGE-HPAI Member Countries from the European Region participated, with more than 60 participants attending the meeting in person and 23 online.

The meeting focused on epidemiological situation and monitoring and surveillance update in the region, implementation of Global HPAI strategy and best practices from countries (Finland, France, USA). FAO and EU shared information on their activities related to HPAI.

The SGE HPAI-2 discussed and agreed specific recommendations, endorsed after online contribution by Members and experts.

Next meeting: The third meeting of the Standing Group of Experts on HPAI (SGE HPAI-3) in Europe under GF-TADs is planned to be held face-to-face in 2025.

### Concept Note, Agenda



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### Introduction

After welcome words by Dr Plavsic (WOAH Regional Representative), Dr Van Goethem the President of the Regional Steering Committee of the GF TADs for Europe welcomed participants and announced the main objectives of the meeting which are aligned with the recommendations from the previous meeting, in May 2023.

## Presentations, and key points highlighted at the meeting

Speaker
<p><b>Dr Bernard Van Goethem</b>, President of the GF-TADs for Europe:</p> <p>Recalled that the Standing Group of Experts (SGE) for HPAI in Europe was established in 2023 and to promote cooperation in preventing and controlling HPAI within Europe and with other regions. The first meeting (virtual) of this SGE took place in May 2023.</p> <p>He then listed <b>the objectives of the second meeting</b>, namely:</p> <ul style="list-style-type: none"><li>- to provide updates on the HPAI epidemiological situation in Europe and globally, including on the infections in cattle and other mammals;</li><li>- to see examples of risk management practices from USA, Finland and France;</li><li>- to discuss on the Members concerns and on important aspects as: global HPAI strategy, surveillance, biosecurity, vaccination, zoning/regionalization;</li></ul> <p>He concluded informing that the SGE HPAI was expected to adopt recommendations the end of the meeting.</p>
<p><b>Dr Jenny Hutchison</b>, Head of the World Animal Health Information and Analysis Department, <b>“Global and regional epidemiological situation on HPAI situation (including in mammals)”</b>:</p> <p>Highly pathogenic avian influenza (HPAI) continues to spread globally, impacting poultry and wildlife significantly. While poultry culling decreased compared to the previous season, particularly in Europe, HPAI outbreaks in non-poultry birds, including a first occurrence in Antarctica, pose a major biodiversity threat. The emergence of HPAI in mammals, notably a mass mortality event in South America and detection in US cattle, introduces new risks. Though the overall human health risk remains low, the WOAHA is closely monitoring the evolving situation.</p> <p>From October 2023 to September 2024, 1284 HPAI outbreaks were reported to the WOAHA, impacting both poultry and non-poultry birds. While poultry outbreaks decreased significantly compared to the previous year (especially in the Americas and Europe), non-poultry bird outbreaks increased, notably reaching Antarctica and posing a serious threat to biodiversity. H5N1 was the dominant subtype. Additionally, a concerning number of HPAI cases emerged in mammals, causing mass mortality events and infecting various species across 12 countries, including cattle in the USA with associated human cases. While the overall public health risk remains low, continued monitoring and collaboration between the WOAHA, FAO, and WHO are vital due to the evolving situation.</p> <p>Given the significant impact on poultry, biodiversity, and potential public health consequences, continued monitoring, surveillance, and rapid response measures are crucial. Consultation with relevant professionals (veterinarians, wildlife experts, public health officials) is advised for in-depth analysis and tailored strategies.</p>
<p><b>Dr Alexandre Fediaevsky</b>, HPAI Task Force, <b>“Global Strategy on Avian Influenza, regional and subregional implementation”</b>:</p> <p>Dr A. Fediaevsky (WOAHA) presented on behalf of the GF-TADs FAO/WOAHA task force on HPAI the new joint <a href="#">HPAI</a> prevention and control strategy for 2024-2033. The strategy has been developed following an extensive consultation process at international, regional and national level involving stakeholders from public and private sectors following a One Health approach. The strategy’s theory of change is based on three main outcomes: i) Prevent HPAI epidemics, panzootics and negative impacts on biodiversity through multisectoral early detection and control; ii) Protect poultry value chains, livelihoods, trade, and the health of humans, ecosystems, and other animals from avian influenza impacts and iii) Transform poultry value chains to improve resilience to avian influenza and other disease threats. The different</p>

outputs supporting these objectives will be progressively translated into action plans to support Member's implementation of national strategies tailored to their specific situations.

**Dr Ian Brown**, OFFLU Chair, Pirbright Institute, **“Current knowledge for optimising HPAI surveillance and Scientific update from OFFLU”**:

The presentation detailed a concerning global HPAI situation, characterized by a significant number of outbreaks between October 1st, 2023, and August 16th, 2024. These outbreaks, primarily driven by H5N1 and H5N8 subtypes, impacted both poultry and wild bird populations across multiple regions. Asia reported the highest incidence, followed by Europe and Africa. A notable concern was the significant spillover of the H5N1 subtype into various mammalian species, including, but not limited to, arctic foxes, cats, dogs, and sea lions.

The causative agent, the 2021-2024 H5N1 HPAI clade 2.3.4.4b, was identified as a highly pathogenic and infectious strain due to its evolved traits that enhance transmission and pathogenicity. This strain's impact on biodiversity was substantial, resulting in significant mortality among a wide array of wild bird species from diverse taxonomic orders.

Phylogenetic analysis of A(H5) sequences revealed the virus's dissemination through long-range migratory birds, followed by secondary spread within poultry populations, resident wild bird communities, and occasional spillover events into mammals and humans. A detailed timeline of H5 detections in wild birds further illustrated the expanding host range and increasing frequency of outbreaks since 2020.

A strong correlation between HPAI incidence in wild birds and poultry populations was established, underscoring the critical role of wild bird surveillance in early detection of emerging or novel strains. Fifteen years of wild bird surveillance data provided key insights: *the capacity of migratory waterfowl to disperse the virus across vast geographical distances, the crucial role of the poultry-wild bird interface in the virus's long-term evolution, and the finite lifespan of individual HPAI strains in wild bird populations. Furthermore, factors such as flyway mixing and age- and immunity-related population susceptibility were identified as influencing the duration of HPAI maintenance in wild bird populations and the subsequent risk to poultry.*

Comprehensive surveillance strategy encompassing passive surveillance of poultry for early detection and targeted wild bird surveillance to detect new incursions of known strains or the emergence of novel strains exhibiting altered genetic characteristics and/or increased risk to poultry, was strongly suggested. Vaccination of poultry was highlighted as a crucial intervention for preventative, emergency, and routine disease control, emphasizing the critical importance of accurate vaccine strain matching.

The successful implementation of these strategies hinges upon securing adequate resources, establishing regionally consistent response protocols, and ensuring effective data sharing. Challenges were identified, including the need to better understand the structural features of poultry production systems that influence virus transmission dynamics. There is the need for robust cross-sectoral and international collaboration to overcome these challenges and ensure effective HPAI control. The OFFLU network (Joint WOAHA-FAO network), its provision of technical expertise, data sharing mechanisms, and support of WHO vaccine composition meetings were highlighted as key contributors to global HPAI management efforts. Their avian influenza matching (AIM) system was showcased as a valuable tool for guiding vaccine strain selection.

The current HPAI situation necessitates sustained vigilance, robust international collaborations, and ongoing research to fully understand the virus's evolutionary trajectory and transmission dynamics. A proactive, well-resourced surveillance approach, coupled with risk-based resource allocation and a focused examination of the poultry-wild bird interface, is deemed essential for effective HPAI control.

**Dr Etienne Bonbon**, President of the Terrestrial Animal Health Standards Commission, **“Use of the Terrestrial Code for prevention and control of HPAI, including vaccination and trade”**:

The presentation underscored the WOAHP Terrestrial Code's role as a centralized, comprehensive resource for managing HPAI, urging stakeholders to utilize its guidelines to establish effective prevention, control, and trade strategies. The ongoing refinement and expansion of the Code demonstrate a commitment to keeping these strategies current and robust.

The comprehensive approach to prevention and control, emphasizing that nearly all necessary information is readily available within its framework was highlighted. Biosecurity measures are extensively covered, including new chapters on general biosecurity, waste disposal, and disinfection protocols for poultry. Import regulations, currently undergoing revisions, emphasize the importance of the zone of origin's status. Effective outbreak management hinges on adherence to detailed protocols and the strategic application of zoning and compartmentalization, with new guidelines constantly being developed. The Code also outlines a clear path to status recovery post-outbreak.

Vaccination was presented not as a replacement for stamping-out policies, but as a powerful supplementary tool, its implementation contingent upon a thorough risk assessment and the Veterinary Authority's capacity to effectively manage vaccination campaigns and the subsequent surveillance needed to maintain disease-free status. Trade regulations were clarified; trade of live birds and raw products is strictly limited to HPAI-free zones, while adequately processed products from affected zones may be traded under specific conditions. Importantly, vaccination itself does not automatically impact a zone's HPAI status, provided that robust surveillance data supports the absence of infection. This includes thorough documentation of vaccines administered in the case of live bird exports.

**Dr Daniel Beltran-Alcrudo**, Technical Advisor (Animal Health), FAO Regional Office for Europe and Central Asia, **“FAO regional initiatives on avian influenza”**:

The FAO has established regional [Virtual Learning Centers](#) (VLCs) to develop, adapt/translate and deliver online training, predominantly on animal health and also One health topics. Courses are available in a range of formats, including online tutored courses, blended learning, technical webinars and mobile learning. The VLC for Europe and Central Asia (REU) has reached over 3,200 participants across 50 countries in the past two years alone. Specifically related to HPAI, FAO developed a [4-week tutored course in English](#), Russian and Ukrainian. Accredited by the European organization for Veterinary Continuing Education in Europe (VetCEE) with 0.5 European Credit Transfer and Accumulation System (ECTS) credits as a post-graduate level (advanced) training, the course was recently re-run in English attracting over 300 participants from 43 countries across Europe. A [shortened open-access version](#) of the course is also available as open access for anyone to register.

The Outbreak Costing Tool (OutCosT), which is species-specific, has been recently adapted to poultry diseases and was validated with real data from seven countries in three continents. As a spreadsheet-based tool, [OutCosT](#) helps to estimate the direct costs of disease outbreaks and their control in a simple, systematic, time- and resource-efficient manner, yet with precision. The tool not only allows for the cost calculation of real outbreaks (retrospectively), but also future hypothetical outbreak scenarios or to simulate the costs related to alternative management strategies.

**Dr Francisco J. Reviriego Gordejo**, EC, DG SANTE, **“Activities of the EU regarding HPAI”**:

The European Union is actively combating the outbreak of HPAI through a comprehensive strategy. This strategy relies on a robust surveillance system that monitors both birds and mammals to ensure early detection of outbreaks. Strict biosecurity measures, including biosecurity at farm level and movement restrictions in high risk areas, are implemented to prevent the spread of the virus. Rapid notification, within 24 hours domestically and internationally, is essential for a rapid response.

Eradication efforts use the stamping out method to eliminate infected herds and regionalisation strategies to control the spread. Since January 2004, the EU has adopted 39 regionalisation measures, as response to HPAI outbreaks in

Member States. A new compartmentalisation system, a voluntary addition to mandatory biosecurity measures, provides another layer of control by allowing Member States to apply for disease-free status for specific establishments that meet strict biosecurity criteria.

Vaccination is not a substitute for other preventive measures, but a complementary tool. The EU has harmonised the rules for HPAI vaccination, allowing the use of non-live avian influenza virus vaccines. France's large-scale preventive vaccination programme in ducks demonstrates the practical application of this strategy.

The European Food Safety Authority (EFSA) provides essential epidemiological data and publishes scientific opinions on vaccination strategies, providing important guidance. Meanwhile, the EU provides substantial technical and financial support to Member States, including training and co-financing of surveillance programmes and emergency measures, demonstrating its commitment to coordinated action and effective disease control.

**Dr Taina Aaltonen**, WOAH Delegate, Deputy Director General, CVO, **“Best practices in Finland: Experience with HPAI in animals and humans (One Health approach, biosecurity, vaccinations)”**:

Finland faced a major challenge in 2023 with an outbreak of highly pathogenic avian influenza that spread from wild birds to fur farms. However, the rapid and decisive response demonstrates the successful application of a One Health approach. Initially, several outbreaks of HPAI in wild birds led to increased mortality in fox cubs, prompting an investigation and the eventual discovery of widespread infection in seventy-one out of four hundred fur farms. The authorities immediately implemented strict biosecurity measures, including the culling of affected animals and active monitoring of the spread of the virus. A multi-agency response involving the Finnish Food Authority, the Institute of Health and Welfare and other key players ensured rapid information sharing and coordinated decision-making, with regular meetings and aligned strategies to tackle the problem. Extensive testing of potentially exposed workers resulted in no human cases. While a specific HPAI vaccine wasn't available, the use of seasonal influenza vaccines and later the introduction of H5N1 vaccines helped to mitigate the risks. New strict biosecurity regulations for fur farms, to be implemented in April 2024, will further strengthen prevention efforts. The Finnish experience provides a valuable model for other countries facing similar threats, demonstrating the effectiveness of proactive surveillance, multi-sectoral cooperation and robust biosecurity measures in managing HPAI outbreaks.

**Dr Olivier DEBAERE**, Project Director for Epizootics (HPAI/ASF). Crisis Director, **“Best practices in France: experience with poultry vaccination, challenges and opportunities”**:

Since 2015, France has experienced 5 epizootic waves of HPAI, with a total of almost 3,000 infected farms, leading to the slaughter of over 40 million poultry. This situation has become totally unbearable because of the risk to public health, the distress of farmers and the exhaustion of human and financial resources.

For these reasons, the option of a strategy of preventive vaccination of ducks was considered to slow the spread of the virus. The first ducks were vaccinated on 1 October 2023. Vaccination is compulsory for all farms with more than 250 meat ducks. Around 60 million ducks were vaccinated against HPAI between 1 October 2023 and 30 September 2024. Two inactivated vaccines are used: the VOLVAC vaccine produced by Boehringer Ingelheim and the RESPONS vaccine produced by CEVA. These vaccines are effective against the 2.3.4.4.b H5N1 clade.

In accordance with WOAH standards and EU regulation 2023/361, a system of active and passive surveillance of vaccinated birds has been put in place to verify the absence of viral circulation.

Given the success of the first campaign, with only 10 outbreaks of HPAI during the 2023/2024 season, the vaccination strategy will be renewed from 1 October 2024.

**Dr Julie Gauthier**, Executive Director for Field Operations, **“Best practices in the USA: Experience with the control of HPAI, including in mammals (online)”**:

On behalf of the USDA's Animal and Plant Health Inspection Service (APHIS), the best strategies for managing highly pathogenic avian influenza in the United States were presented. The key message is that biosecurity is paramount. The presentation stresses the importance of both structural biosecurity - the design and layout of the farm - and operational biosecurity - the day-to-day protocols and procedures that keep the farm safe. This includes creating designated biosecure zones and rigorously cleaning and disinfecting equipment, as illustrated by images of boot washing stations.

Keeping different species separate is another important step, as mixing increases the risk of disease spread. Farmers are urged to be vigilant, closely monitor their animals for signs of disease and report any concerns immediately. The presentation provides online resources to help in this effort. These resources include updates on HPAI detection in various animal populations, detailed guidance on how to strengthen biosecurity measures for poultry and livestock, answers to frequently asked questions about HPAI in dairy herds, and links to CDC for information on protecting human health.

In short, APHIS' presentation paints a picture of proactive HPAI management, emphasising a multi-pronged approach that combines robust biosecurity measures, vigilant surveillance and timely reporting to prevent and control outbreaks. The readily available online resources underscore the agency's commitment to assist farmers and protect animal and public health.

**Dr Isabella Monne**, WOA/FAO and National Reference Laboratory for avian influenza & Newcastle disease, **“Monitoring the genetic evolution of HPAI in Europe: insights from the WOA/FAO/EU Reference Laboratory at the IZSVe”**:

The presentation provided insights into the genetic evolution of high pathogenicity avian influenza (HPAI) viruses of clade 2.3.4.4b in Europe during the 2023-2024 epidemiological year. Although there were fewer HPAI outbreaks in Europe compared to the previous year, the virus has continued to evolve. This is expected with avian influenza viruses, which naturally evolve to persist. However, the evolutionary capacity of this particular clade is heightened by its ability to undergo reassortment, infect a wide range of hosts, and persist in wild bird populations.

As a result, new genotypes have emerged, circulating alongside those from previous epidemic waves. These different genotypes often exhibit distinct spatial and temporal spread patterns, leading to varying risks for both poultry and kept mammals. For this reason, it is essential to continuously identify the genotypes of circulating strains, underscoring the importance of ongoing genomic surveillance.

The presentation also highlighted the value of real-time genome monitoring for identifying viruses with increased zoonotic potential, enabling timely responses to viral threats. Furthermore, the importance of sharing genetic sequences and epidemiological data was emphasized, as it enhances collaborative efforts to control the spread of the virus.

## Recommendations

### CONSIDERING THAT:

1. The establishment of the Standing Group of Experts on HPAI (SGE-HPAI) for Europe within the framework of the Regional GF-TADs was driven by the extraordinary changes in the risk profile

of highly pathogenic avian influenza (HPAI) at regional and global levels. These changes highlighted the need for enhanced coordination among Members to review disease prevention and control measures. The SGE HPAI plays an important role in facilitating the exchange of epidemiological data, best practices and effective strategies. By adopting a One Health approach, the expert group aims to safeguard both animal and human health, to reduce the spread of HPAI and to mitigate the economic impact of the disease on Members throughout the region.

2. In recent years, Europe has faced an increase in the introduction of HPAI virus into poultry populations, driven by wild bird migration, resulting in increased outbreaks and significant economic losses. Although the virus continues to evolve and remains a threat to poultry production, the number of infected wild and domestic birds has decreased since the first SGE HPAI meeting. Despite this improvement, the risk of HPAI infection remains, with the potential for spillover to other animals and humans, as has been observed in other regions.
3. Awareness raising and education of all relevant stakeholders on the risks and consequences of HPAI in captive birds remains essential to ensure their active involvement in prevention, surveillance and preparedness activities. Effective surveillance systems for early detection in both wild and domestic birds are also essential to ensure timely reporting and rapid implementation of control measures. Farm-level biosecurity remains the foundation of disease prevention and is a key tool to prevent the introduction, development and spread of HPAI within bird populations and mammals. Strengthening these aspects will significantly improve the Region's ability to respond to HPAI threats in a coordinated and efficient manner.
4. In certain epidemiological contexts, vaccination can be an effective complement to other control strategies, as illustrated by successful vaccination programs in some countries, and that if properly implemented, vaccination should not be a barrier to safe trade.
5. A comprehensive regional policy for the rapid eradication and effective control of HPAI outbreaks in captive birds remains essential to protect human and animal health and to maintain safe trade practices. In line with this, FAO and WOAHA have developed the Global Strategy for the Prevention and Control of Highly Pathogenic Avian Influenza (2024-2033), which provides a strategic framework to guide regional efforts. This Global Strategy emphasises prevention, preparedness and coordinated response, and provides critical support to address the ongoing and evolving threats posed by HPAI.
6. One Health is a concept of high importance when there is a need to prevent diseases spreading between animals and humans and especially when reducing risk for pandemics.

**THE REGIONAL GF-TADs FOR EUROPE RECOMMENDS THAT:**

1. The SGE HPAI for Europe, established in 2023 within the framework of the regional GF-TADs, is recognised as an effective mechanism for coordinating activities between Members and international organisations, including FAO, WOAHA and DG SANTE. To increase its impact and ensure a more comprehensive One Health approach, it is recommended that WHO/Europe and public health authorities be further involved in operational activities, recognising the zoonotic potential of the disease and risk for pandemics. In addition, contributions from UNEP and the environmental sector are encouraged to strengthen joint efforts to protect animal and human health, control disease spread and minimise economic losses throughout the region.

2. The GF-TADs regional secretariat, in strong coordination with partners and members facilitate the development of a two-year regional action plan to support the implementation of the HPAI Global Strategy in Europe based on priority needs expressed by Members with a One Health approach. The regional action plan should address support to implement biosecurity measures adapted to the different farming systems, enhanced surveillance in poultry, wild birds and mammals, implementation of international standards, sharing best practices on prevention and control measures, including vaccination, and of scientific knowledge regarding circulating strains
3. Members ensure appropriate level of surveillance for early warning, biosecurity measures at farm level, make use of the necessary tools to prevent the spread of the disease in kept animals and continue timely reporting of avian influenza outbreaks. Maintain vigilance and awareness for spillover of infection to other domestic species. In addition, surveillance needs to be engaged, in accordance with the risk, in mammalian species, in particular in carnivores, in areas with potential high environmental contamination with HPAI virus.
4. Laboratories in Members of the European Region should have access to sequencing platforms capable of generating complete genomes of HPAI viruses enabling effective tracking of their spread and monitoring of zoonotic mutation emergence. Alternatively, sharing HPAI-positive samples with WOAHA Reference Laboratories (RLs) for avian influenza should be facilitated to ensure the timely generation of genetic data. Information resulted from genomic monitoring of avian influenza viruses should be timely published in relevant databases and shared with WOAHA RLs, including data deposition in international publicly accessible databases to support early detection and rapid response to potential threats to both animal and public health.
5. Members of the European Region should continue to implement science-based risk assessments that assist veterinary services in maintaining a high level of animal health and ensuring safe international trade in accordance with WOAHA international standards.
6. In case of zoonotic mutation emergence, decision making based on joint risk assessment in accordance with One Health Approach, is recommended.
7. Veterinary Authorities, in collaboration with avian influenza reference laboratories and collaborating centres, should effectively exchange information on the development, testing and use of vaccines against HPAI. This includes evaluation of vaccination strategies, ensuring the implementation of reliable vaccines and efficient surveillance in vaccinated populations capable of detecting virus infections.
8. Members encourage research institutions and vaccine manufacturers to invest and collaborate on research and development of effective and safe HPAI vaccines adapted to different species of poultry in accordance with the standards in the Terrestrial Manual; to further support and utilise the outputs of the international AIM (Avian Influenza Monitoring) programme to strengthen vaccine matching to contemporary and emerging viruses.



**Annex 1: List of Members present:**

- Austria
- Azerbaijan
- Belgium
- Croatia
- Denmark
- Estonia
- Finland
- France
- Georgia
- Germany
- Hungary
- Ireland
- Italy
- Kyrgyz
- Latvia
- Lithuania
- Malta
- Montenegro (online)
- Norway
- Poland (online)
- Portugal
- Russia
- Serbia
- Slovakia
- Slovenia (online)
- Sweden
- Switzerland
- Tajikistan
- Turkey (online)
- The Netherlands
- UK
- Uzbekistan

**Annex 2: List of observer countries, GF-TADs organizations, and associated organizations:**

- Worldwide Influenza Centre / WHO Collaborating Centre for Reference and Research on Influenza / The Francis Crick Institute
- FAO - Europe
- WOAHP HQ
- WHO
- Federation of Veterinarians of Europe
- Representatives of Uzbekistan (hosting country)

**Annex 3 : photos from the meeting**

