



HAL
open science

The HPAI Modelling Challenge

Brandon Hastings Hayes, Gael Beaunée, Sébastien Lambert, Timothée Vergne

► **To cite this version:**

Brandon Hastings Hayes, Gael Beaunée, Sébastien Lambert, Timothée Vergne. The HPAI Modelling Challenge. 3. Modelling in Animal Health conference (ModAH), Aug 2024, Nantes, France. 2024, 3. Modelling in Animal Health conference (ModAH). hal-04684727

HAL Id: hal-04684727

<https://hal.inrae.fr/hal-04684727v1>

Submitted on 3 Sep 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

The HPAI Modelling Challenge



Scan me for more
information

What is a modelling challenge?

A short competition designed to improve the ability of modelling teams to deliver fast-response policy advice to decision-makers.

Why High Pathogenicity Avian Influenza (HPAI)?

HPAI epidemics continue to cause severe health and economic impacts across the globe. A comprehensive national preparedness plan includes ready-to-deploy models. This challenge provides the opportunity to both develop models that will be useful internally as well as facilitate the creation of ensemble models for future epidemic response.

How does this work?

An artificial multi-species HPAI epidemic will be simulated and split into 3 phases. Over a 3 month period at the start of each month, teams will be provided surveillance and situation reports for a given epidemic phase, along with modelling missions (e.g. predicting the locations of subsequent outbreaks, or making policy recommendations). Teams will be tasked with completing the missions in each phase, and at the end of the challenge, forecasts and recommendations will be analysed.

Why participate?

- To increase the breadth of HPAI models ready to be deployed
- To increase the transparency of HPAI model programs
- To improve the scientific community readiness and capabilities for real-time response to emerging infectious disease crises
- To improve collaboration opportunities in the modelling community
- To improve communication between modellers and risk assessors and managers
- **To have fun!**