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# EARS-Vet: A European network for surveillance of antimicrobial resistance in veterinary medicine

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## INTRODUCTION

In the EU, surveillance of antimicrobial resistance (AMR) in animals primarily focuses on monitoring at slaughter and food thereof. An important gap is monitoring of AMR in diseased animals. This is critical to guide antimicrobial stewardship in veterinary medicine, and more generally to support evidence-based management of AMR in animals in Europe.

## OBJECTIVES

Paralleling EARS-Net in the human sector, the EARS-Vet network aims to monitor AMR in bacterial pathogens from livestock and companion animals. EARS-Vet also intends to act as a knowledge hub to strengthen and harmonize AMR surveillance in veterinary medicine across Europe.

## EUROPEAN ANTIMICROBIAL RESISTANCE SURVEILLANCE NETWORK IN VETERINARY MEDICINE (EARS-VET)



## METHODOLOGY

EARS-Vet was initiated in 2018 as part of the EU Joint Action on AMR and healthcare-associated infections (EU-JAMRAI). Activities so far have consisted in reviewing national systems for surveillance of AMR in animal pathogens across Europe, as well as defining the objectives, scope and standards of EARS-Vet. In addition, a pilot study involving 9 countries was conducted in 2022.

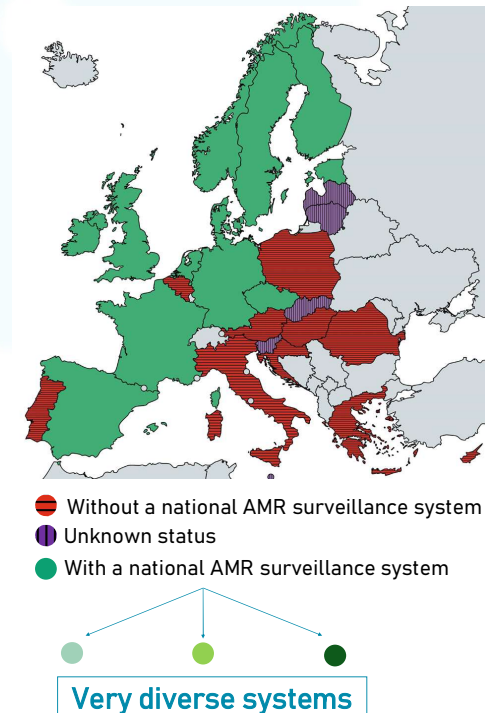
## PERSPECTIVES

Further development of the network will occur as part of EU-JAMRAI2 (2024–2027), with the aim of making EARS-Vet a full-scale and sustainable initiative. Building on a network that has expanded to 17 EU/EEA countries, the planned activities include i) improving the harmonization and comparability of AST methods across Europe, ii) facilitating routine data sharing and analysis, iii) implementing WGS analyses of phenotypes of interest and iv) working towards long-term sustainability and integration with other EU and international AMR surveillance initiatives.

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## RESULTS

In 2020, 11 out of 27 EU/EEA countries had a national surveillance system of AMR in animal pathogens. However, these systems were highly diverse. Building on the existing monitoring activities, an initial common scope including six animal species and 11 bacterial species was defined. The pilot study gathered antimicrobial susceptibility testing (AST) data from 140,110 isolates, and demonstrated substantial variations of AMR levels, both among and within countries.

## CONCLUSIONS

We have built a network of European scientists with a strong interest to monitor AMR in veterinary medicine at the EU level. Key issues at this stage include the lack of data from many EU/EEA countries, harmonization of AST methods, and the absence of many AST interpretation criteria.

