

# Multi-actor farm health approaches for the improvement of antimicrobial use practices across nine European countries



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## Introduction

In an effort to tackle the problem of irresponsible antibiotic use (AMU), several strategies have been put forward, namely bottom-up approaches focusing on coaching, education and dissemination of innovative solutions to farmers and other stakeholders involved in animal production. In this study, we demonstrate how such a multi-actor farm health (MAFH) approach can influence the perception of farmers towards AMU reduction strategies. These MAFHP are part of a larger set of activities developed within the DISARM thematic network (see Figure 1).



Figure 1: DISARM project goals

## Materials and Methods

MAFH teams (MAFHT) are composed of the three core interested parties (farmer/farm manager, feed/other advisor, veterinarian) with the help of a project facilitator. The coaching process followed the steps presented in Figure 2. The MAFHT focused on pigs (Netherlands and Spain), poultry (Belgium and Latvia), dairy cattle (Denmark, Romania and UK) and dairy sheep (France and Greece).

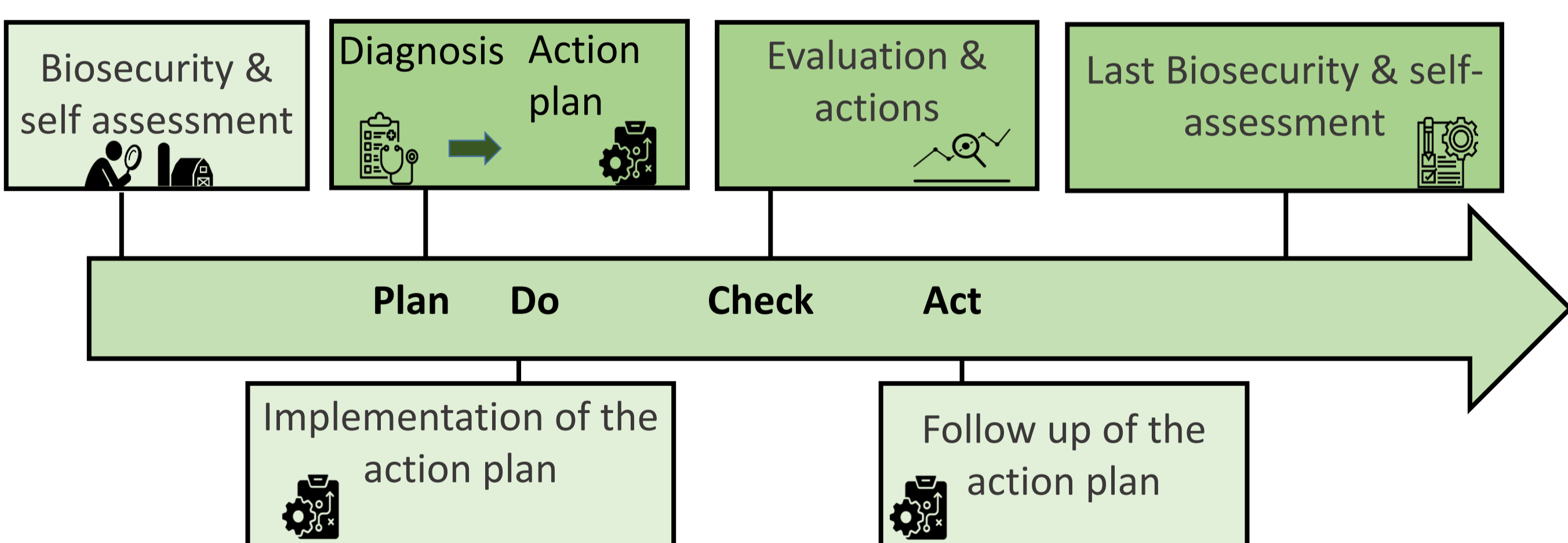


Figure 2: Plan of implementation of the MAFHT ('Plan-do-check-act')

## Results

A total of 30 case studies have been summarized in factsheets (example in Figure 3) presenting:

- the challenges on the farm
- solutions proposed by the MAFHT
- perceptions of the economic impact of reduced antimicrobial use

Case studies followed over a period of two years show overwhelmingly positive impact on the reduction of AMU through coaching with MAFHT, by helping identifying critical animal health problems and alternatives or improved procedures that could be employed when aiming to reduce AMU on their farms. Based on the experiences of the MAFHT, DISARM has created a toolbox to facilitate coaching activities (Figure 4).

## Conclusions

We demonstrate that a coaching strategy in different European countries and different animal production systems can be an effective approach to reduce and improve AMU and that an MAFHT approach can be instrumental in the fight against antimicrobial resistance. For more information on other dissemination materials (testimonials, videos, webinar, practice guides and practice abstracts) carried out by the DISARM consortium (Figure 5) can be found on <https://disarmproject.eu>

Category	Score	Main area of improvement
Total score	80%	-
Internal biosecurity	82%	-
External biosecurity	79%	-
External biosecurity	68%	-Physical separation of clean and dirty route on farm premises.
Internal biosecurity	65%	-Installing a central farm hygiene lock in addition to the hygiene locks per compartment

Figure 3: Example of a 2 page farm factsheet created based on experiences of DISARM MAFHT



Figure 4: Multi-actor farm health team Toolbox as implemented on the website, with clickable resources and useful tips for farmers and advisors to get started with their own farm health plan: <https://disarmproject.eu/search-resources/farm-health-toolbox/> Also accessible using the QR code below



Figure 5: DISARM consortium project partners



Disseminating Innovative Solutions for Antibiotic Resistance Management



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