

AACTING



Herd level antimicrobial consumption in animals
Collect | Analyze | Benchmark | Communicate

A STATE-OF-THE-ART OF MONITORING SYSTEMS FOR FARM-LEVEL ANTIMICROBIAL USAGE

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CONTENTS

- Aims of the AACTING-project
- Overview of farm-level antimicrobial usage monitoring systems
- www.aacting.org
- AACTING guidelines
- Future

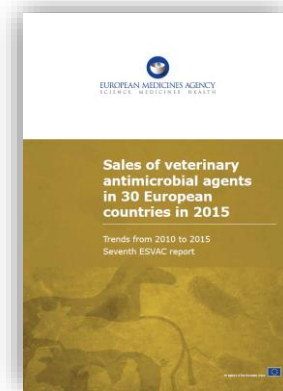
- Centre of expertise on AntiMicrobial Consumption and Resistance in Animals (npo)
- Rational reduction of antimicrobial usage
- Work across government and sectors
- **Unit 'Advice and communication'** (*since 2012*)
 - Advise and communicate
- **Unit 'Data-analysis'** (*since 2014*)
 - Analyse Belgian farm-level antimicrobial usage

ABBREVIATIONS – DEFINITIONS

- AMU: antimicrobial use/usage
- AMR: antimicrobial resistance
- DCS: data-collection system
 - ~ Any system collecting, quantifying, benchmarking and reporting AMU data at farm level
 - ~ Monitoring system
 - ~ System

AACTING-PROJECT BACKGROUND

- AMU \Rightarrow AMR
- ... to measure is to know! (and to improve...)
- Sales data
 - National reports, ESVAC, OIE, ...
 - National policy-making
 - Less detailed analysis
- Farm-level AMU data
 - Guiding farm- or sector-specific practices



AACTING-PROJECT BACKGROUND

- ‘Universal’ challenges and choices when setting-up farm-level DCS
 - Lack of harmonization among existing DCS
 - Type and detail of collected data
 - Indicator(s) for reporting AMU
 - Criteria for acceptable or problematic AMU
- ⇒ Difficult to compare and to learn

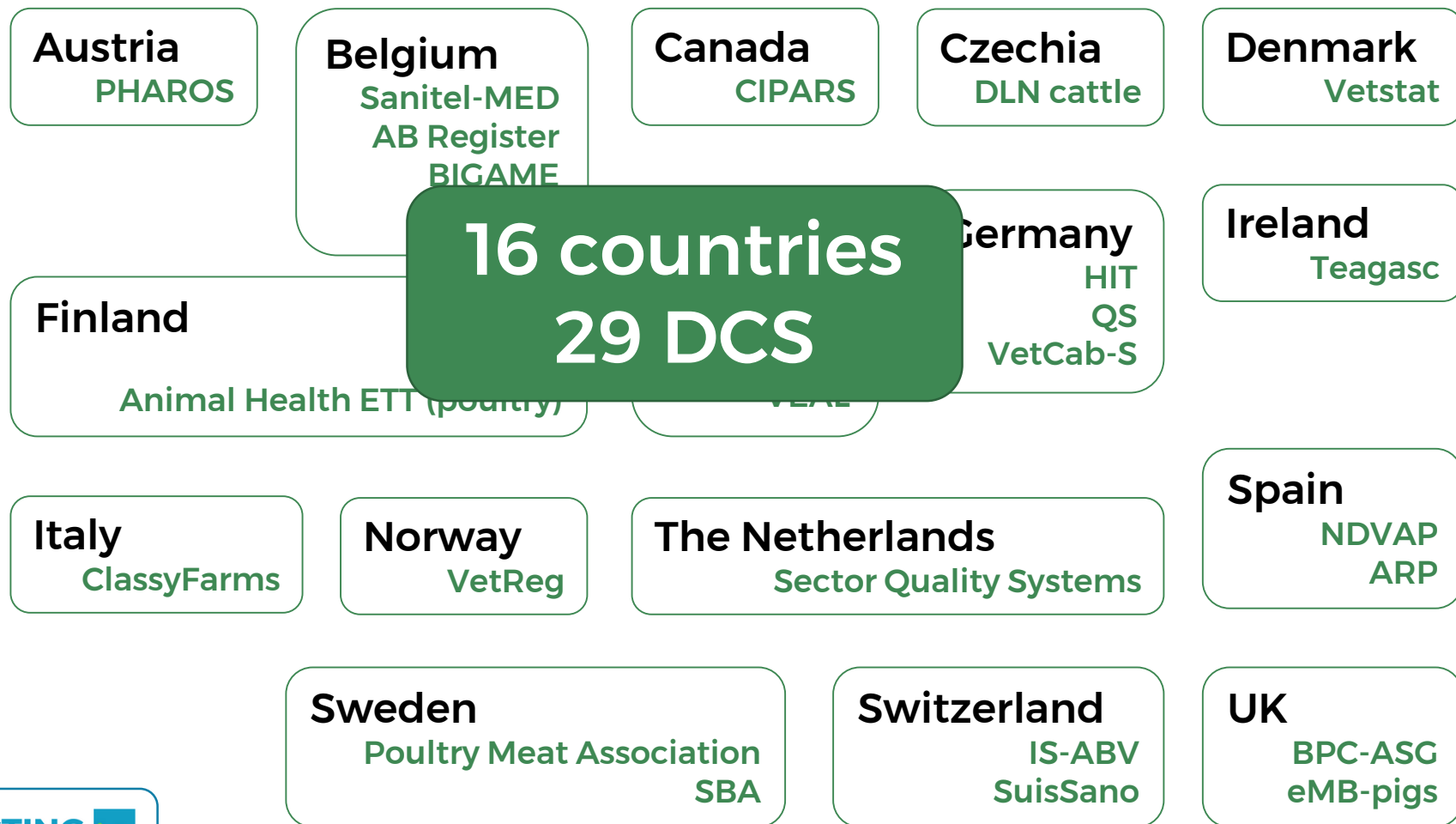
AACTING-PROJECT AIMS

1. **Overview** of existing systems for farm-level AMU monitoring → review paper
2. Develop **guidelines** describing practices for collecting, analysing (= quantifying), benchmarking and reporting farm-level AMU

AIMS OF THE AACTING-PROJECT

3. Develop **website** gathering relevant and up-to-date information about existing monitoring systems and other initiatives/information on (quantification of) (farm-level) AMU.
4. Organise an International **Conference** on the topic

OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS



OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

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DLN cattle

Denmark
Vetstat

Finland
SIKAVA
Animal Health ETT (poultry)

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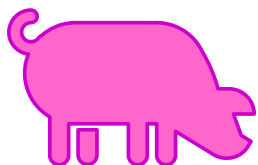
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ClassyFarms

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The Netherlands
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21 systems

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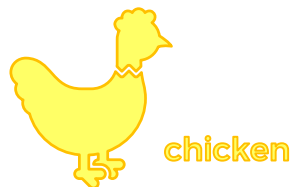
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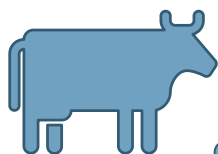
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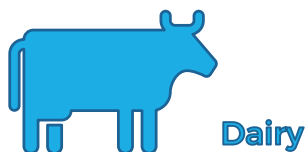
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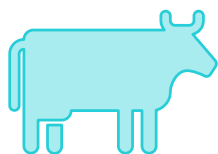
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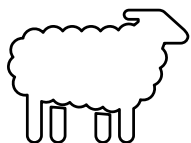
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4 countries
4 systems

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OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

- Three features of the DCS
 1. (Main) funding
 - Private vs. governmental

OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

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Private
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OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

- Three features of the DCS
 1. (Main) funding
 - Private vs. governmental
 2. Coverage
 - Full coverage
 - Partial coverage
 - Non-random, large part of sector, (mostly) compulsory
 - Sample survey
 - Small, random yet representative part of sector, voluntary

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Full

Partial

Sample survey

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Full (9)

Partial (12)

Sample survey (7)

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 3. Participation
 - Voluntarily vs. compulsory

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OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

- Other important questions
 - Who is responsible for data-input?
 - How is AMU quantified?
 - Technical units of measurement?
 - Indicators?
 - Benchmarking?
 - Reporting at farm level?

WWW.AACTING.ORG



AACTING PROJECT

MONITORING SYSTEMS

INTERNATIONAL CONFERENCE

GUIDELINES

QUANTIFICATION OF VETERINARY AMU

GLOBAL ACTIVITIES ON AMR

CONTACT

Welcome to the website of the **AACTING network on quantification, benchmarking and reporting of veterinary antimicrobial usage (AMU) at farm level**. This website assembles information on worldwide existing monitoring systems for farm level veterinary AMU and provides guidelines for setting up such systems as well as analysing and reporting those AMU data for the purpose of antimicrobial stewardship.

This website and the AACTING project are funded by JPI-AMR.

 **READ MORE**



SYSTEMS FOR QUANTIFICATION OF ANTIMICROBIAL USAGE

OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

- Quantification of AMU
 - Indicator = numerator / denominator
 - Numerator: technical units of measurement
 - Denominator: biomass or population at risk of AMU
 - Weight-based
 - E.g. mg/PCU, mg/kg
 - Dose-based
 - E.g. DDD/year, ADD/100 animals/day, ...
 - Count-based
 - E.g. treatment frequency (HIT), IFTA (CLIPP), ...

OVERVIEW OF FARM-LEVEL ANTIMICROBIAL USAGE MONITORING SYSTEMS

- Benchmarking
 - “The categorization of a party’s AMU following a comparison with the AMU of a predefined population of similar parties, with AMU for all parties being quantified in a similar manner.”
 - Full/partial coverage systems currently active and benchmarking
 - Belgium, Germany (HIT and QS), Denmark, France (CLIPP), the Netherlands
 - Including vets: the Netherlands

AACTING GUIDELINES

- Aim
 - Provide useful support when designing or revising farm-level AMU DCS
 - Aspects to consider
 - Tips and tricks
 - Suggestions
 - Maximise the establishment of stewardship at farm-level

AACTING GUIDELINES

- Target audience
 - Global
 - Countries with an established medicines registration and regulations
 - All stakeholders
 - Involved in designing and setting up DCS for AMU at farm-level
 - Using AMU data for analysis and benchmarking
 - ‘End-users’ of the data: farmers, veterinarians, etc.
 - With an interest in the outcomes of the analysis (retail, competent authorities, consumers, etc.)

AACTING GUIDELINES

- Contents
 - Practical guidelines per topic
 - Data collection
 - “Determine who can change the data.”
 - Quantification
 - Benchmarking
 - “Define the outcome of exceeding the thresholds (if any).”
 - Reporting
- Availability
 - AACTING website

FUTURE

- AACTING-project will end 28 Feb 2018
... AACTING-consortium will not!
- Continued network for exchanging knowledge and experience
 - Everybody is welcome!
- Continues updating of systems overview (on website)
- Second conference?

CONCLUSIONS

- Clear need to learn and be informed about what is happening around the world
- First ever overview of existing DCS for farm-level AMU
- Website
- Guidelines
- Open for expansion

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THANK YOU FOR YOUR ATTENTION...



... QUESTIONS?