



EuFMDiS

European Foot-and-Mouth Disease Spread model



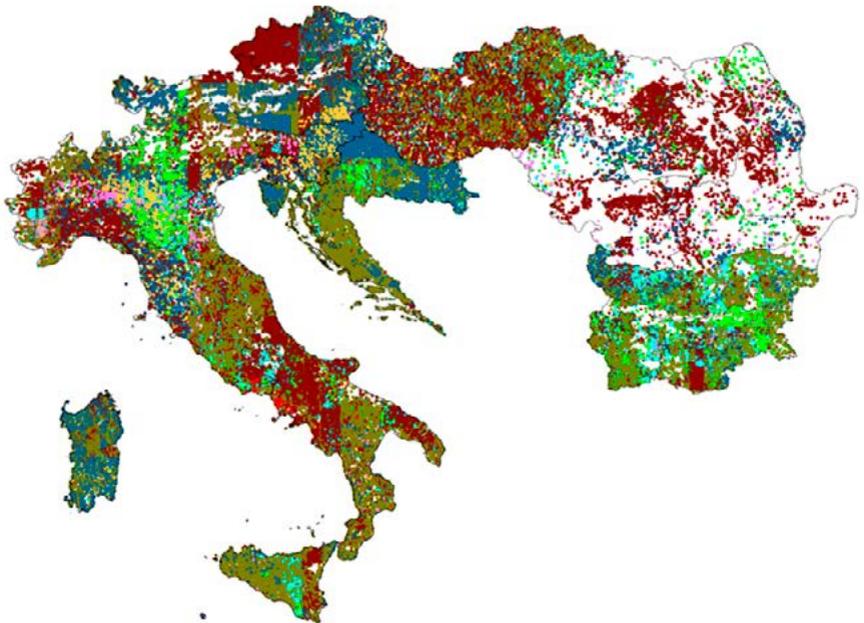
What is EuFMDiS?

The EuFMD has promoted the development of EuFMDiS, which is a multi-country foot-and-mouth disease outbreak simulation model. EuFMDiS can be used to evaluate various control options to eradicate the disease. It can also evaluate available resource and vaccine supply issues.

EuFMDiS is a powerful, robust and flexible modelling tool that allows countries to evaluate their contingency plan and the impact of control measures.

EuFMDiS is developed with the collaboration of seven central European countries pilot countries Italy, Austria, Croatia, Hungary, Romania, Bulgaria and Slovenia.

EuFMDiS can be extended to a pan-European modelling environment.



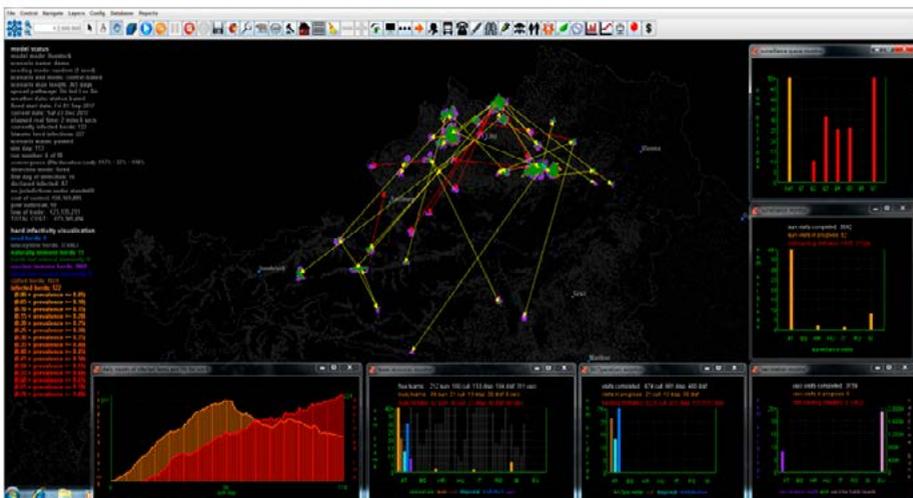
How to extend EuFMDiS to additional countries?

There are three core components that need to be considered in building EuFMDiS:

1. Setting up the livestock populations
2. Representing FMD spread
3. Modelling disease control

Participating countries have defined:

- A common herd classification with nine herd types;
- 25 livestock production regions that represent different livestock production characteristics and disease risk;
- Country-level disease spread and control parameter values.



What data have to be provided by the participating countries to be part of EuFMDiS?

1. Setting up the livestock population

A national herd dataset including location information is required. Information on herd type, size and location is needed.

2. Representing FMD spread

Animal movements: data on number of consignments of animals that move between herds, size of shipments, when they occur and where they go to.

Indirect contacts: average number of indirect contacts each herd type has with other herds; probabilities that an indirect contact is with the same or a different herd type; distances over which indirect contacts are expected to occur.

3. Modelling disease control:

How effectively are control measures applied: compliance with movement restrictions; effectiveness of tracing; suspect premises reporting; vaccination.

Resources available for control: the personnel resources required for the key operational activities of surveillance, culling, disposal, decontamination and vaccination.

4. Reporting costs and economic impacts:

Animal values (for compensation); cost of managing outbreak including operational activities: surveillance, culling, vaccination, etc.; trade losses.



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