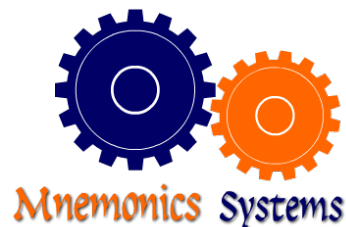# PROPOSAL FOR ANIMAL HEALTH RISK-BASED SURVEILLANCE SYSTEM

Partners

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Table of Contents

INTRODUCTION

The RISKSUR project, an EU FP7 funded project running from 2012 to 2015, was aimed to develop **decision support tools for the design of cost-effective risk-based surveillance systems** that integrate the most recent advances in epidemiological methodologies, based on an interdisciplinary approach and tailored to the needs of individual EU Members States. This was achieved by the development of evaluation frameworks for animal health surveillance system designs for three different surveillance objectives with livestock diseases:

- Early detection of exotic, new (emerging) and re-emerging diseases
- Demonstration of freedom from diseases and infections
- Determination of disease frequency and detection of cases of endemic animal diseases

EXPERCTED IMAPCTS

- Support of the Community Animal Health Policy (CAHP) and international policies

- Cost-effective risk-based surveillance programmes

- Early detection of diseases will allow taking rapid response and hence reducing losses in production and market access for farmers and compensation funds for public bodies, as well as reduce the risk of direct or indirect impact on public health

- Inform appropriate biosecurity measures for different production systems based on analysis of surveillance data

- Contribute to assessment of potential changes in the production systems and associated disease risks

- Methodologies will be applicable to other areas of the world

SURVEILLANCE TOOLS

The development of surveillance systems is a complex task, and requires an approach that is based on the most up-to-date knowledge effectively integrated between different scientific disciplines and transparent to stakeholders. It should also be recognised that design of efficient surveillance systems usually involves a process of comparing several options, which ideally should include a formal evaluation.

The RISKSUR tools were developed to address these challenges, and in particular provide those designing surveillance in Europe with science-based frameworks to guide them through the systematic process of design and evaluation. They provide an integrated user interface to the underlying design and evaluation frameworks.

The *design framework* reflects the sequence of steps involved in the development of a surveillance system and its associated components, including defining the target hazard and surveillance objective, target population, surveillance enhancements, testing protocol, study design, sampling strategy, data generation (sample collection), data/sample transfer, data translation (sample analyses), epidemiological analyses, dissemination of results and surveillance review.

The *evaluation (EVA) tool* helps those advising policy makers in the development of an economic and epidemiological evaluation protocol adapted to their needs. It provides step-by-step guidance on defining the evaluation context, selecting a suitable evaluation question, evaluation attributes, criteria, and methods as well as documentation on the process, methodologies and communication of outputs.
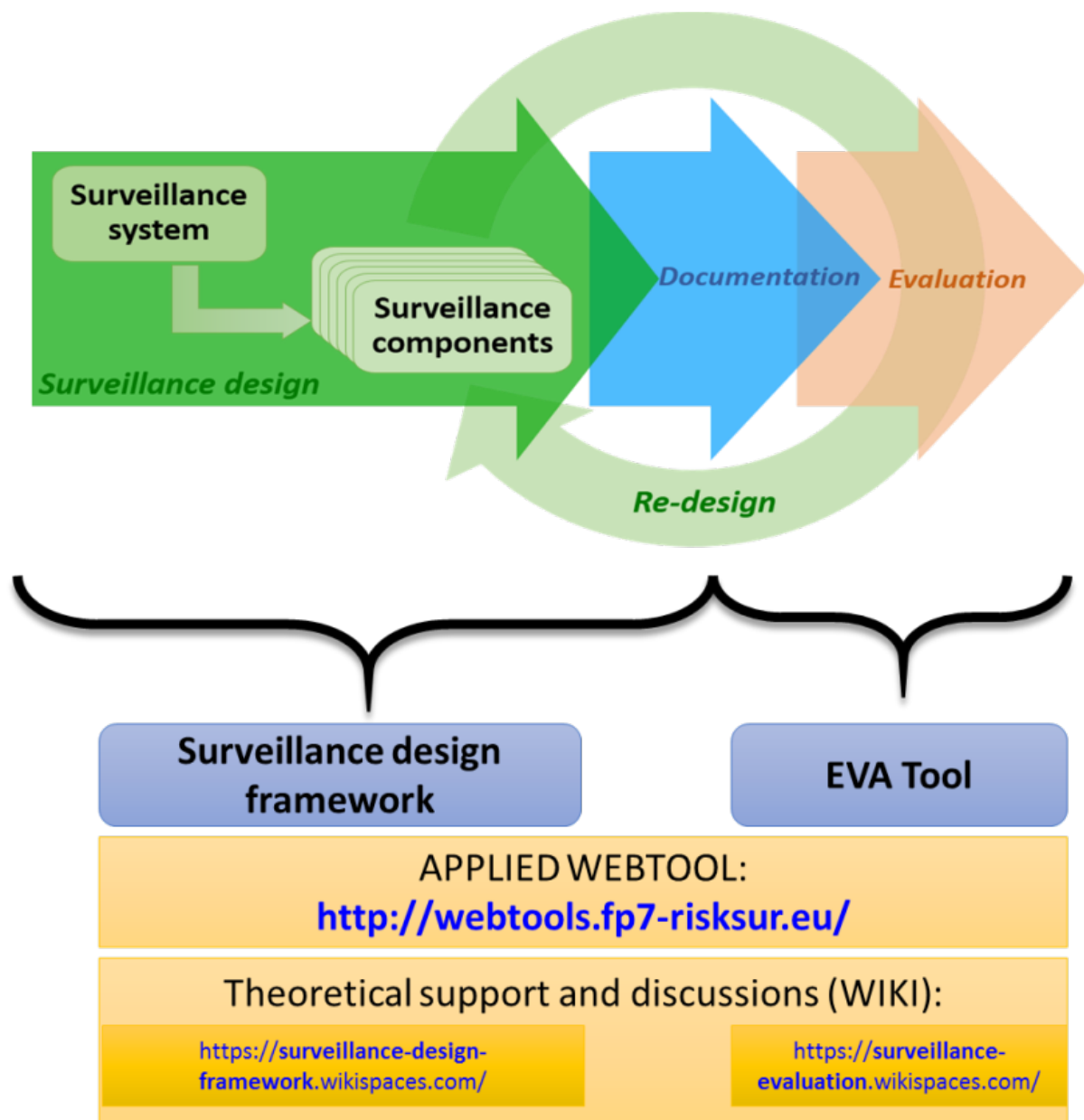
Both tools are publicly available and can be accessed upon registration at http://webtools.fp7-risksur.eu.

They encompass a *web interface* for users to develop a design/evaluation plan, and WIKI classrooms
https://surveillance-design-framework.wikispaces.com / http://surveillance-evaluation.wikispaces.com
to provide theoretical information on all required concepts, and promote discussion among surveillance stakeholders across the globe.

The diagram below shows how these resources fit into the surveillance design and evaluation context, and how they complement each other.

Surveillance system

Surveillance components

Surveillance design

Documentation

Evaluation

Re-design

Surveillance design framework

EVA Tool

APPLIED WEBTOOL:
http://webtools.fp7-risksur.eu/

Theoretical support and discussions (WIKI):

https://**surveillance-design-framework**.wikispaces.com/

https://**surveillance-evaluation**.wikispaces.com/

TRAINING MATERIAL AND ONLINE CASE STUDIES

Our e-learning modules for self-study cover various methodologies. The material consists of both methodological as well as applied aspects of methods. Special emphasis is given to illustrative information, particularly case studies, based on evidence produced in RISKSUR.

Videos in the form of session recordings are also available. The presentations are divided into sections (chapters). Each chapter is represented by an item in the Recording Index, permanently visible on the left of the viewing window, and is followed by a timestamp. Sections are again sub-divided according to individual slides. You can expand and collapse sections to display the entire table of contents by clicking the triangle that precedes them.

BENEFITS OF USING THE SURVEILLANCE TOOLS

- Guidance on how to design and evaluate surveillance in order to optimise it

- Step by step approach on design and evaluation of surveillance

- Access to training materials

- Access to comprehensive documentation