ASF control: from theory to practice

National Reference Laboratory at IZSUM

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Standing Group of Experts on African swine fever in Europe
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Sarajevo

CEREP
CRN per lo Studio delle Malattie da Pestivirus e da Asfivirus

WOAH

ISTITUTO ZOOPROFILATTICO SPERIMENTALE DELL'UMBRIA E DELLE MARCHE "TOGO ROSATI"

Istituto Zooprofilattico Sperimentale Umbria e Marche «Togo Rosati» IZSUM

Main Facilities in Perugia

and 5 secondary Facilities

National Reference Laboratories in Perugia:

African Swine Fever & Classical Swine Fever

Ruminants Pestiviruses

Ruminants Retroviruses

Bovine Herpes Viruses

Buffaloes Herpes Viruses

Control bivalve molluscs

Istituti Zooprofilattici Sperimentali (IIZZSS)

a network of Laboratories for veterinary diagnosis

Laboratory diagnosis and Research

Animal Health and Food/Feed safety

<u>IZS has </u>a main facility plus some secondary branches

Kick off in Belgrade

Partners

Partner countries:

- North Macedonia
- Serbia
- Armenia
- Georgia
- Kazkhstan

Italian network of veterinary laboratories:

1. Istituto Zooprofilattico Sperimentale delle Liguria, Piemonte e Valle d’Aosta (IZSPLVA)
2. Istituto Zooprofilattico Sperimentale della Sardegna (IZSSA)
3. Istituto Zooprofilattico Sperimentale del Lazio e della Toscana (IZSLT)
4. Istituto Zooprofilattico Sperimentale dell’Abruzzo e Molise (IZSAM)
5. Istituto Zooprofilattico Sperimentale del Mezzogiorno (IZSM)
6. Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe)
7. Istituto Zooprofilattico Sperimentale della Lombardia e dell’Emilia Romagna (IZSLER)

Project regional dimension

Cluster Western Balkans	Cluster Caucasus and Kazakhstan
Serbia North Macedonia	• Armenia • Georgia • Kazkhstan

Project Management Board

IZSUM Staff:
- **Project Technical Lead**: F. Feliziani
- **Deputy Project tehcnical Lead:** MS. Beato
- **Teachnical advisor:** C. Iscaro
- **Management / Technical Advisor**: A. Cristalli
- **Other Scientists**: S. Pavone, C. Righi

Daily Management

IZSVe, IZSLER, IZSPLVA, IZSLT, IZSS, IZSM, IZSAM

WP1	WP2	WP3	WP4
WP1L	WP2L	WP3L	WP4L

Project steering comitee

- **CVO** of Serbia - Živko Matijević
- **CVO** of North Macedonia - Oliver Milanov
- **CVO** delegate of Armenia - Armen Danielyan
- **CVO** delegate of Georgia - Natia Kartskhia
- **CVO** delegate of Kazakhstan – Madi kenesbek
- **Deputy CVO of Italy** - Giovanni Filippini
- **WOAH** Regional rep - Budimir Plavsic
- **WOAH HQ** - Gregorio Torres
- **IZSUM** technical management staff (F. Feliziani, C. Iscaro, A. Cristalli, MS. Beato)
- **IZSUM Director -**Vincenzo Caputo

Every 6 months approval of the:
- **Strategy**
- **Planning**
- **Activity report**

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Yearly supervision

ASF In Italy: a peculiar history of many different stories

1967 FIRST OUTBREAK IN ROME PROVINCE
TOTAL 28 provinces infected >200 outbreaks and > 100,000 pigs stamped out

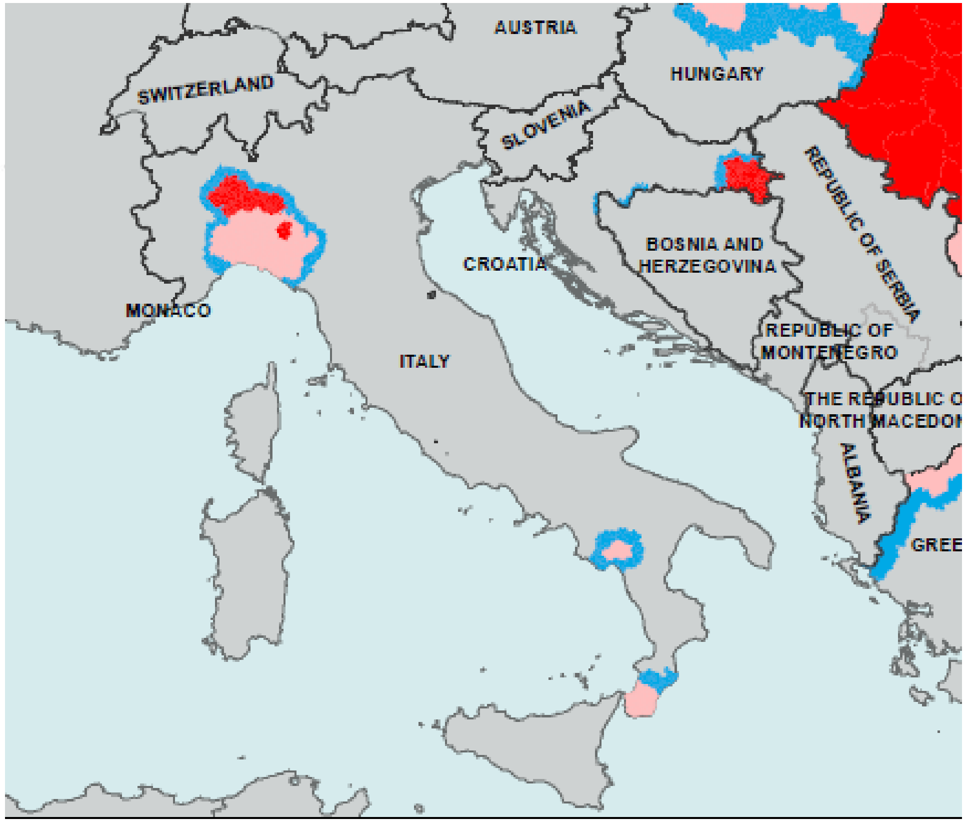
1969 New incursion in Naples

1978 First outbreak in Sardina

1983 First outbreak in Piedmont (from Sardinia)

2022 First incursion of Genotype II in mainland Italy (Liguria)

2024 Official eradication in Sardinia



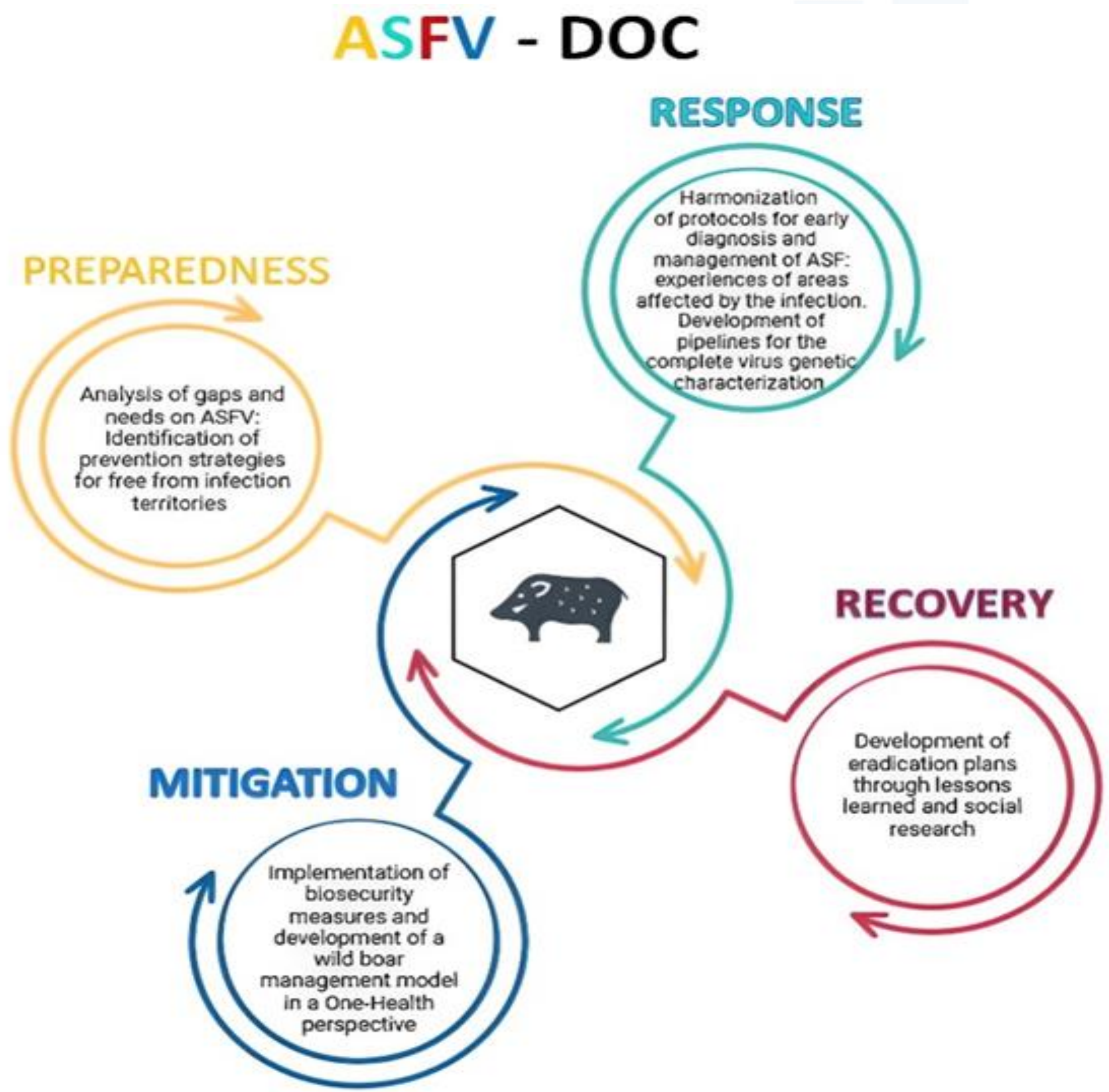
General objective

Improved capacity for controlling ASF at the country and regional level

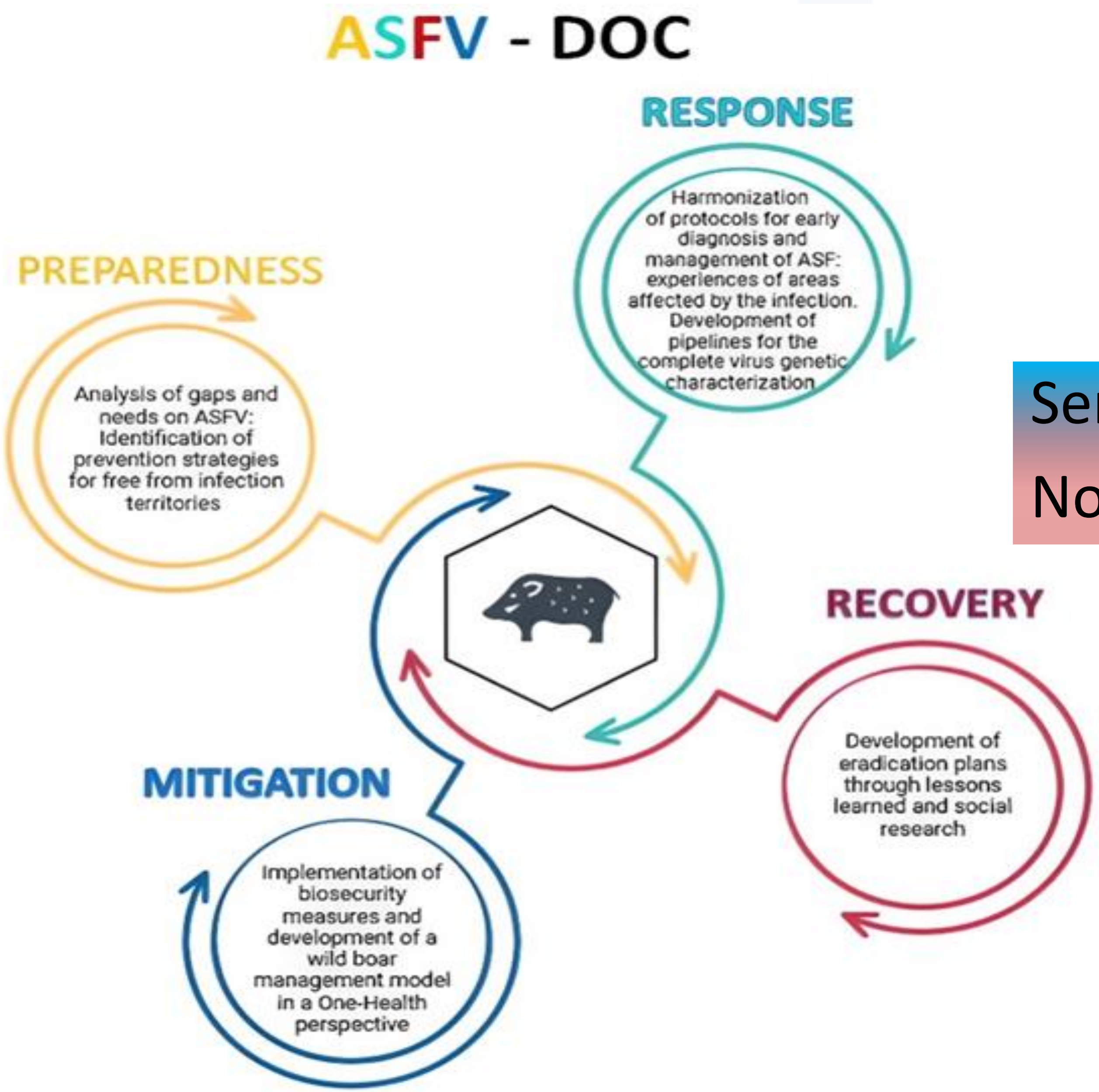
Specific objectives

- Countries are better **prepared** for **ASF introductions**
- have increased capacity to **respond** to **ASF introductions**
- Have updated tools to **eradicate ASF**
- Increased **biosecurity / biocontainment practices** (field, laboratory)

Disease Outbreak Cycle



Different epidemiological situations



Kazkhstan

Armenia

Georgia

Serbia

North Macedonia

African Swine Fever: project guiding principles

1. Measures are tailored to the local/regional contexts and take into consideration the (a) structure of veterinary services, (b) the farming system, (c) the wildlife health and management services, (d) the geographic characteristics and (e) the social economic conditions;

2. Multiple and diverse stakeholders actively engage in preventive, control, and eradication efforts and are coordinated ensuring efficient collaboration;

3. Capitalising on past and ongoing experiences and cases across regions adopting a One Health framework aimed at integrating multiple sectors and disciplines.

Multi-level and multi-sector disease management requires cross-sectoral intervention methodologies

Expected outcomes

1. Better preparedness based on awareness, risk communication, risk assessment.
2. Identify socio-cultural drivers of adopted measures against ASF to potentially minimize their impact on decision making process to control ASF.
3. Improved coordination and cooperation for the control of ASF to overcome the multilevel-governance framework.
4. Improved interdisciplinary integration of data and experiences on ASF management.

WP 1. PREPARE

RENDER COUNTRIES BETTER PREPARED FOR ASF INTRODUCTIONS

ACTIVITIES

A.1.1 Need assessment
A.1.2 Training on Risk Assessment
A.1.3 Trainings on Risk communications

EXPECTED RESULTS

ER. 1.1 Identification of gaps and development of a capacity building / training program
ER. 1.2 Training on risk assessment for the introduction of ASF conducted
ER. 1.3 Training on ASF risk communication conducted

WP 2. RESPOND

INCREASE THE CAPACITY OF COUNTRIES TO RESPOND TO ASF INTRODUCTIONS

ACTIVITIES

A.2.1 Analysis of socio-cultural factors affecting the prolonged eradication process: a model for enhanced future actions
A.2.2 Use of social research to identifies socio-cultural factors driving response actions for ASF
A.2.3 Comparison of local/regional emergency responses
A.2.4. Development of a timely communication framework for ASF epidemiological information
A.2.5. Investigating the applicability of non-invasive sampling in wild boars (swabs/faeces) through laboratory comparison with target samples for ASF

EXPECTED RESULTS

ER 2.1 List of socio-cultural factors with impact on the control of ASF in Sardinia to be used for other countries

ER 2.2 List of type and number of information to be collected at local level necessary to develop control activities for ASF

ER 2.3 Differences and similarities of emergency response plans adopted identified and disseminated effectively

ER 2.4 Revised ASF communication plans

ER 2.5 Diagnostic algorithm for ASF using non-invasive sampling method available

WP 3. ERADICATE

IDENTIFY GUIDELINES AND TOOLS TO ERADICATE ASF

ACTIVITIES

A 3.1 Analysis of eradication plans
A 3.2 Development of models to manage wild boars in a One-Health perspective
A 3.3 Post emergency social surveys

EXPECTED RESULTS

ER 3.1 Eradication plans are revised

ER 3.2 Guidelines issued on wild boar population management with a one – health perspective

ER 3.3 Report on the socio-cultural factors identified in the response phase.

WP 4. MITIGATE

INCREASED BIOSECURITY FOR ASF: FIELD AND LABORATORY

ACRTIVITIES

A.4.1 Development of guidelines for cleaning and disinfection in ASF outbreaks
A.4.2 Develop best practices for transport of biological material to laboratories
A.4.3 Develop biosafety and biosecurity guidelines to establish and maintain ASFV scientific collections
A.4.4 Trainings on biobanking
A.4.5 Trainings on Access and benefit sharing of biological materials

EXPECTED RESULTS

ER.4.1 Protocols for cleaning and disinfection in the field

ER.4.2 Best practices increase biosecurity during the transportation of biological samples

ER.4.3 Guidelines increase the biosafety on ASFV collections

ER.4.4 Trainings on biobanking

E.R.4.5. ASF scientists are aware of the benefit sharing of biological materials

THANK YOU FOR YOUR ATTENTION

cerep@izsum.i

TASK	PREVENT	IZS COINVOLTO
1.1.	Early detection: awareness and knowledge	IZSUM
1.2	Training for change: Induce sustainable behavior change	IZSUM and IZSVe
1.3	Genetic mapping of wild boar populations	IZSUM -IZSM
	RESPOND	
2.1	Better response: Re-thinking and re-use the Sardinia experience	IZSUM and IZSSA
2.2	Development of strategies and action models for disease control.	IZSPLVA
2.3	Analysis and comparison of local emergency responses	IZSLT
2.4	Non-invasive sampling methods in wild boars	IZSPLVA
	ERADICATE	
3.1	Investigate approaches for the wild boar population management with a multi-sectorial approach	IZSLT
3.2	Understand drivers for successful ASF eradication	IZSSA
	MTIGATE	
4.1	Biosecurity in the field: specific guidelines for cleaning and disinfection for ASF outbreaks	IZSUM
4.2	Biosecurity during the transport of biological materials	IZLT
4.3	Harmonize biosafety and biosecurity guidelines in the BSL-3 containment area (laboratories and animal facilities) for ASFV	IZSUM
4.4	Protocols on storing samples for sharing knowledge: ASF scientific collections	IZSLER and IZSUM
4.5	ASFV genetic characterization	IZSUM and IZSAM