

ANIMAL IDENTIFICATION AND RECORDING FOR ANIMAL DISEASE PREVENTION AND CONTROL

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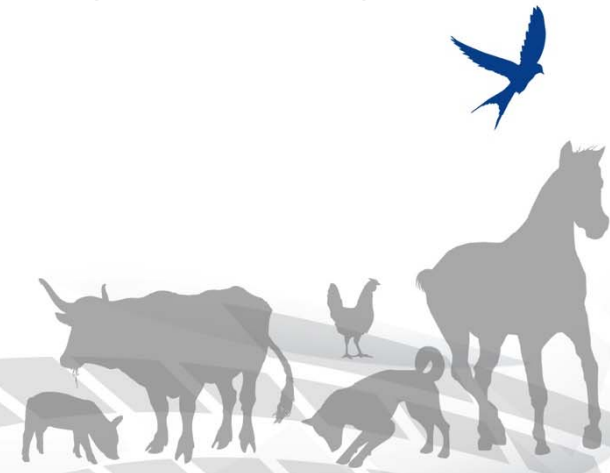
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- Objectives of AHIS
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- Key points for AHIS development
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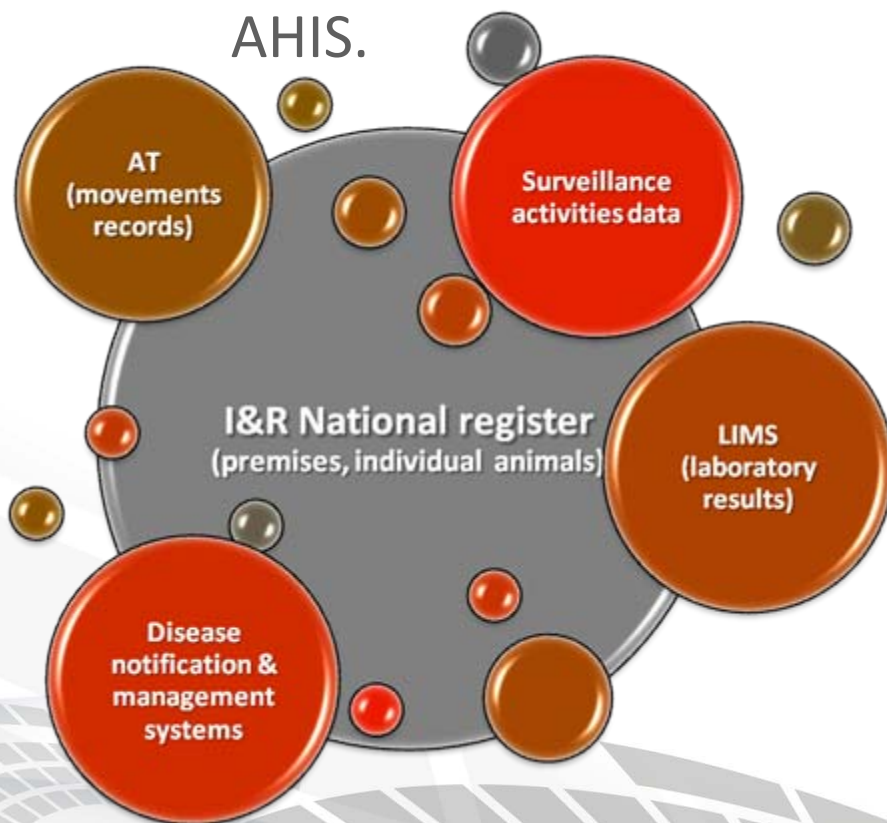
Foreword

- Any strategy for animal disease prevention and/or control requires the establishment of an animal health information system (**AHIS**)
- An effective AHIS should be able to **collect**, **manage** and systematically **analyse** relevant epidemiological data, in order to generate appropriate information for **policy-makers** and other **stakeholders** along livestock food value chains.

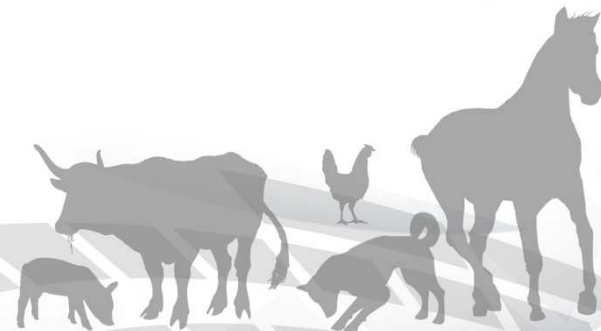


I&R system and AHIS

The presence of a fully operative animal identification and registration (**I&R**) system as well as the existence of an animal traceability (**AT**) system are pre-requisites for the establishment of an effective and fully integrated AHIS.

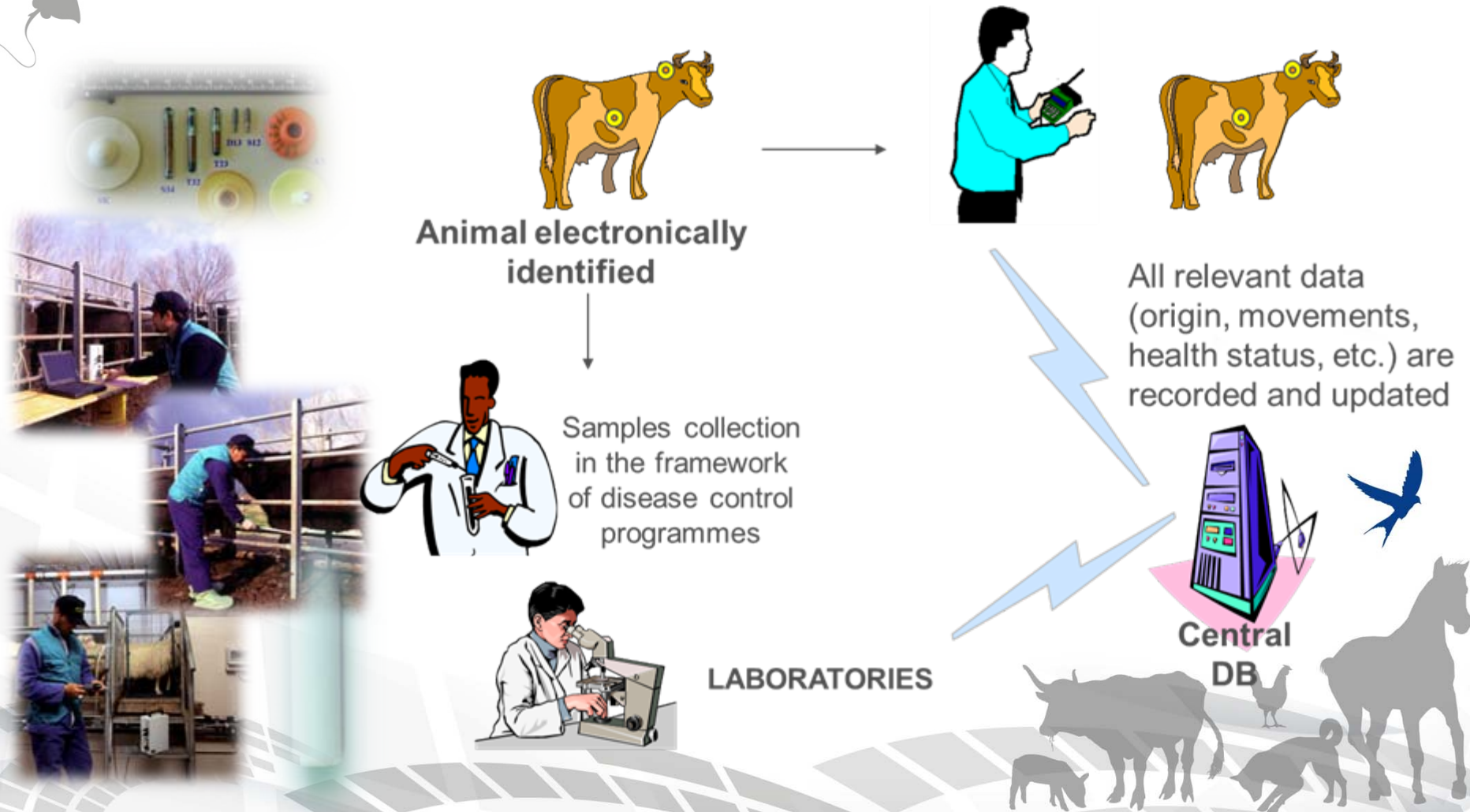


AHIS



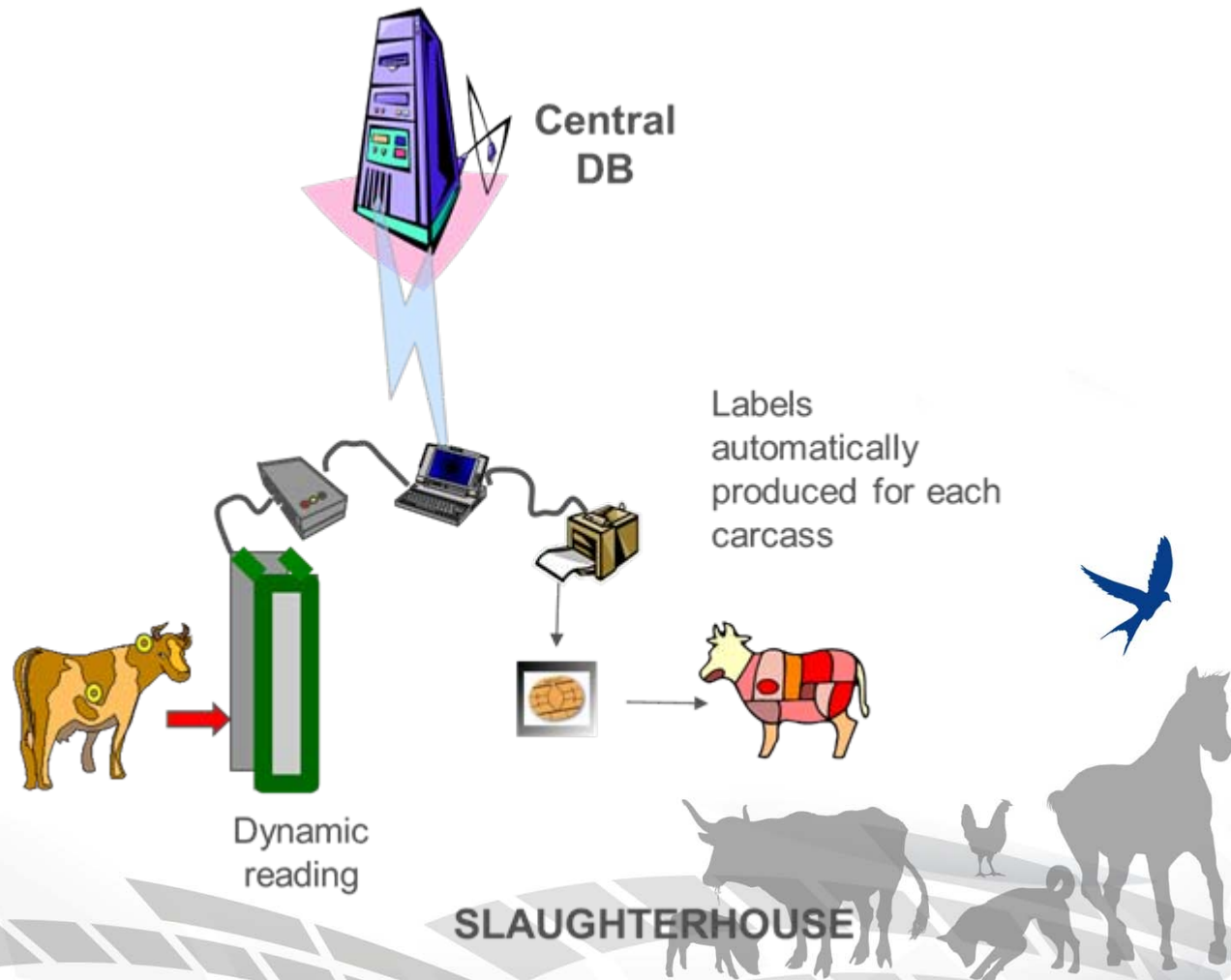
I&R and AHIS

Choices made in I&R influence AHIS performances



I&R and AHIS

Choices made in I&R influence AHIS performances



I&R and AHIS

Choices made in I&R influence AHIS performances

- Not only depending on identification means

But also for example:

- Epidemiological unit choice (holding vs herd vs village, pastures codification....)
- Data collected for each premise / group of animal / individual animal (for examples geographic coordinates)
- Rules for movements notification (movements to pastures, nomadic herds, ...)



Objectives

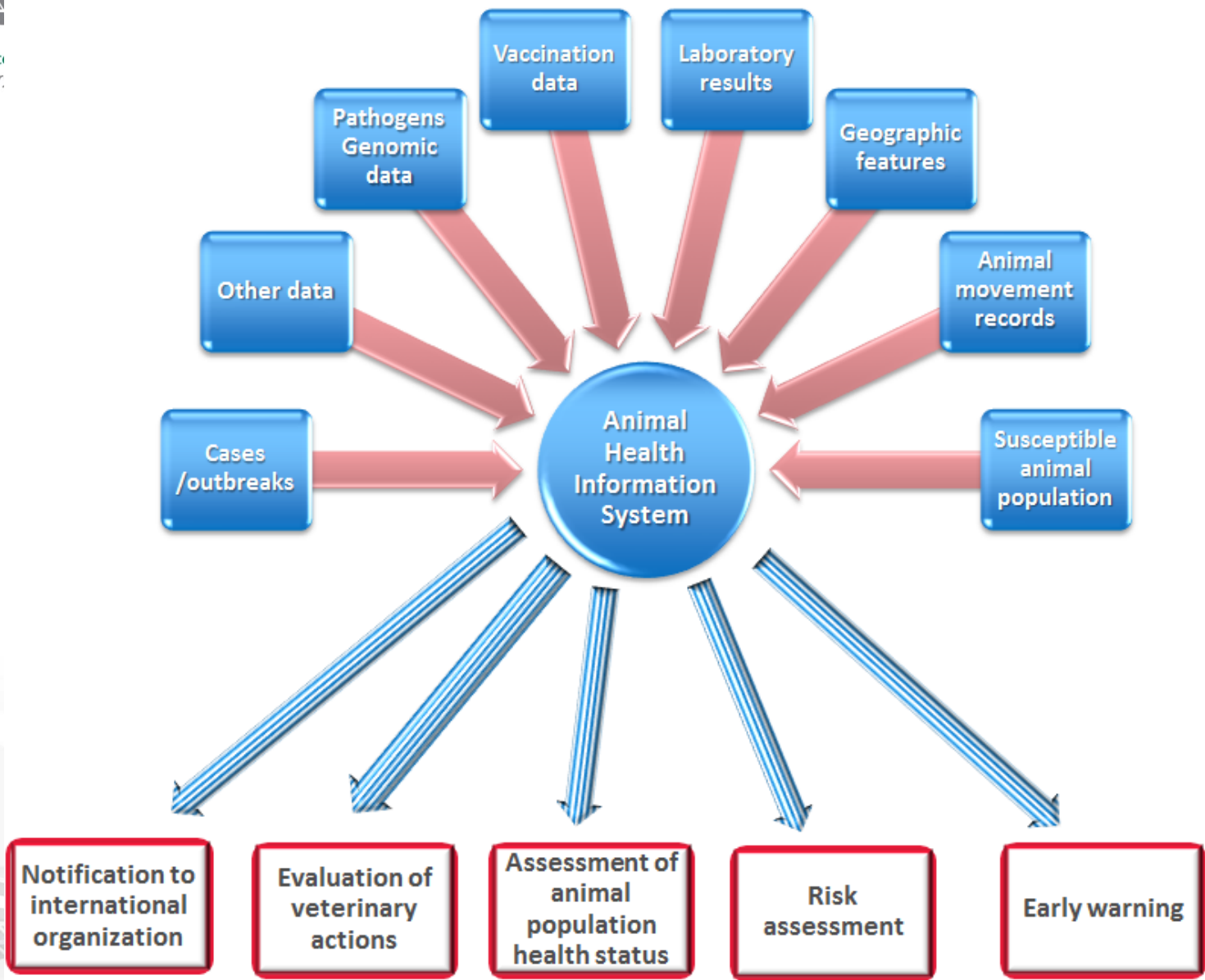
AHIS Objectives

Benefits

- 1 Support animal disease notification system
- 2 Management of animal health emergencies
- 3 Enhance surveillance and early warning
- 4 Support Risk assessment

- International obligations
 - International credibility
 - Efficacy of interventions
 - Reduction of consequences
 - Free of disease demonstration
 - Health status and certification
 - Import / Export risk assessment
 - Support zoning / regionalization / compartmentalization strategies
 - Support to decision-making process
- 

Inputs and output of a AHIS





Key points for AHIS development



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- AHIS must be based on **clear rules** and **procedures**, specifying the responsibilities and tasks of all “actors”
- Data should be **validated** by those who have produced them
- Respect of the **organizational structure**, the legal competencies and tasks of the institutions involved
- Integration of different data sources requires data and **procedures standardization** and the implementation of **common dictionaries** and **common coding systems**



The diagram illustrates the sampling process, labeled '1 SAMPLING'. It features a central cloud-like shape containing several icons: a yellow barn with a ladder, a cow, a sheep, a person in a white lab coat holding a clipboard, a person in a purple shirt handling food in a kitchen, and a piece of meat. To the right of the cloud, there are three test tubes in a rack, labeled 'Animal samples', and a piece of meat, labeled 'Food samples'. A large grey arrow points downwards from the bottom of the cloud. On the left side, there is a curved road with a rainbow-colored border and a green circular logo with the letters 'F', 'A', and 'O'.

[illegible]

A stylized illustration of a modern, multi-story building with large windows and a flat roof. In the foreground, a purple car is parked on a street. The background features a city skyline and a blue sky with white clouds.

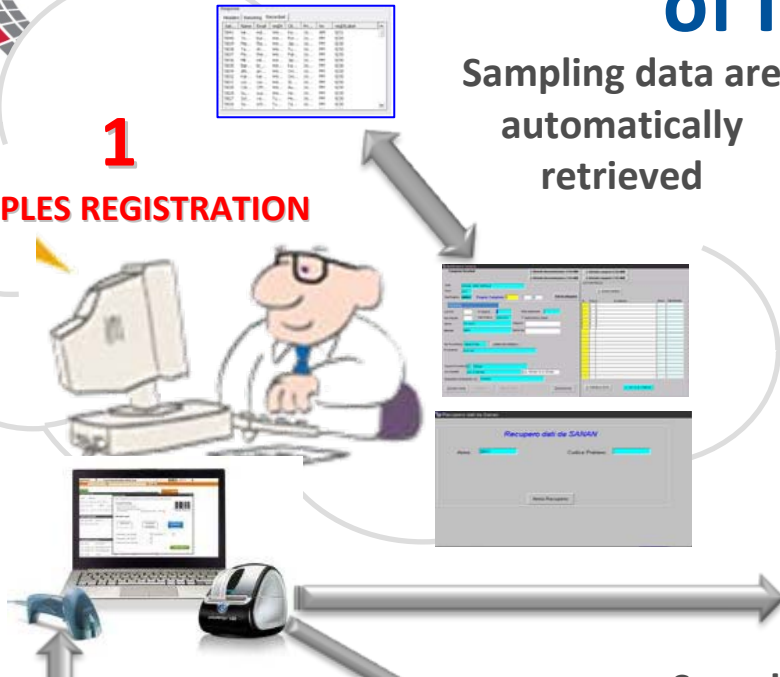


Response									
	Source	Type	Group	Weight	K-S	Pts.	Info	Label	
S001	me	ind	var	1.00	16	AM	0/20		
S040	Ta	var	var	16	PM	0/20	0/20		
S041	me	ind	var	1.00	16	PM	0/20		
S038	Ta	th	var	16	PM	0/20	0/20		
S039	Ta	th	var	16	PM	0/20	0/20		
S036	PM	ind	var	36	PM	0/20	0/20		
S035	me	ind	var	36	PM	0/20	0/20		
S034	AM	th	var	16	PM	0/20	0/20		
S032	Kw	var	var	16	PM	0/20	0/20		
S031	var	var	var	16	PM	0/20	0/20		
S030	CM	var	var	16	PM	0/20	0/20		
S029	CM	var	var	16	PM	0/20	0/20		
S027	Sul	var	Ta	16	PM	0/20	0/20		
S026	me	th	Ta	16	PM	0/20	0/20		

[illegible]

Example of integration of I&R and LIMS

1 SAMPLES REGISTRATION



Samples labelling



Scanner



Sampling code

Morbo Coitale Maligno
Scheda di prelievo campioni di sangue da sottoporre a test

VIA S.P. DI SIRACUSA Distretto DISTRETTO LENTINI
CARLINTINI Prov. SR
095009987 Fax

Al prelievo Morbo Coitale Maligno:
sorveglianza;
aspetto clinico;
seguito di positività;

Anagrafica Azienda (Art. 2, comma 1, lettera b - D.M. 29/12/2009)

CE AZIENDALE 216 CODICE FISCALE LNZMNO77553532D SPECIE ALLEVATA Cavalli (0126)
Indirizzo Lenta Mola
C.F. proprietario LNZMNO77553532D Prov. SR

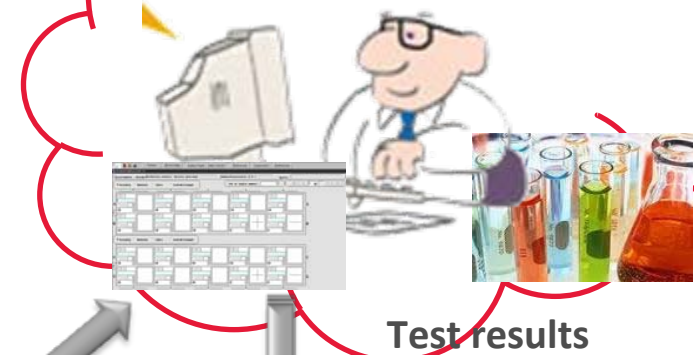
Coordinate geografiche (latitudine WGS84, gradi decimali): Lat. Nord 37.198798 Long. Est 15.94769

Codice prelievo: 200243
Data prelievo: 01/08/2011

Veterinario Zia Vanessa

N. Campion	Identificativo proprietario	Nome	Specie	Sex	Stato	Anno di nascita	Provenienza
1	941000011068167 083000370	GRUSY	C	F	N.D. Noc. disponibile	2005	LNZMNO77553532D

2 SAMPLES TESTING



3 DIGITAL SIGNATURE

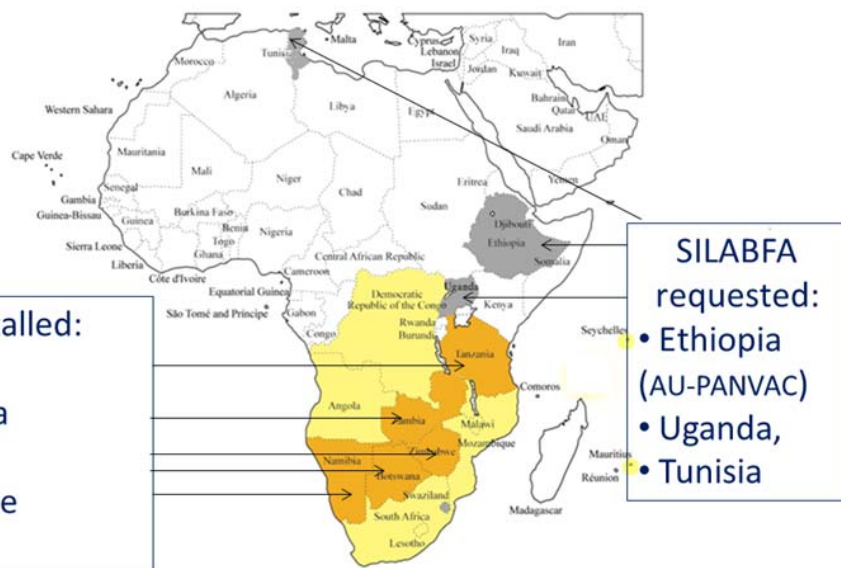


An example of LIMS integration in African countries



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- LIMS web application called “SILAB for Africa” (SILABFA)
- Interoperability with I&R already in place in Botswana and ongoing in Namibia



Animal ID	Species	Age	Sex	Weight	Height	Temperature	Pulse	Respiration	Stool	Urine	Other
0101239	AO	10	10	000							
01.01239	10	10	000								

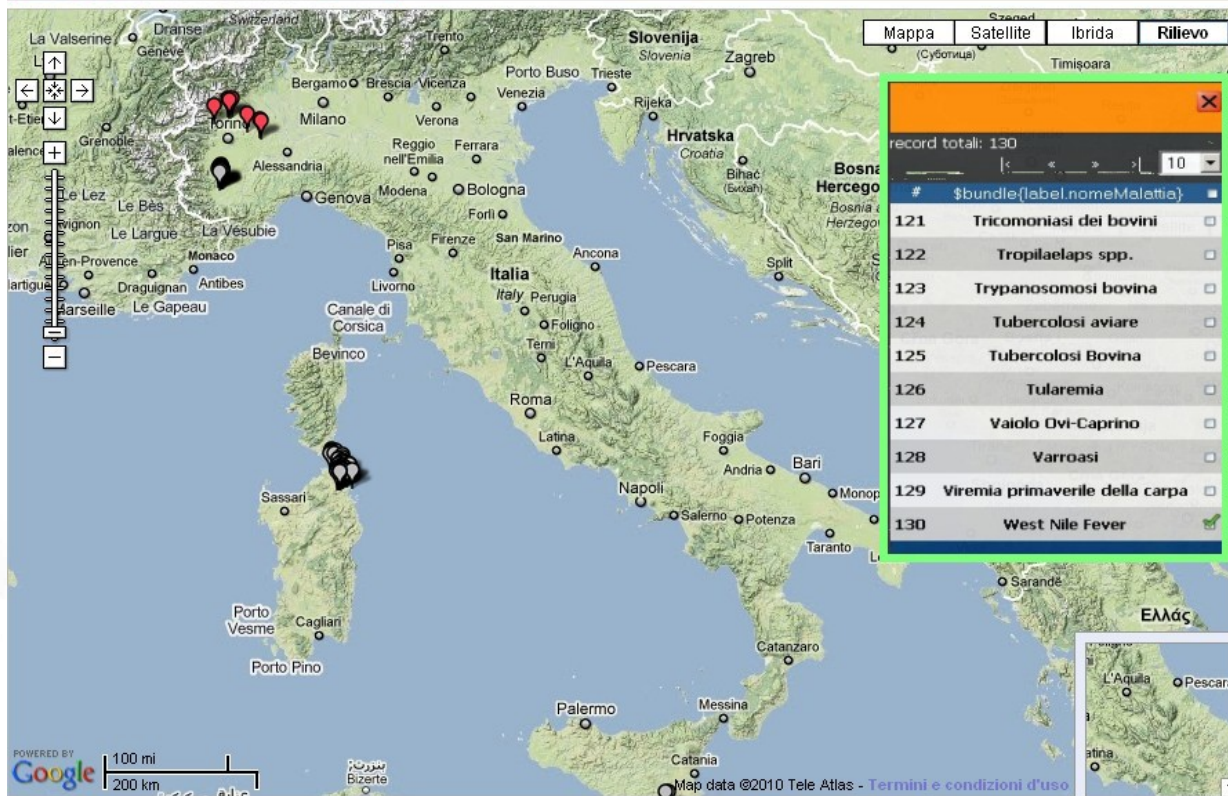




Example of integration with I&R for diseases management: Web GIS



Ministero della Salute



Ricerca

Focolai:

Cerca per: ☒ Stato focolaio ☐ Specie

Malattia:

Da: a:

Stato focolaio:

Strutture:

Tipo:

Allevamenti:

Specie:

Ricerca con buffer

Legenda

Informazioni

Area di notifica

65 focolai trovati

Totale: 65 Esporta la tabella:

ID azienda	Comune	Provincia	Malattia	Stato del focolaio	Tipo focolaio	Data sospetto	Data conferma	Data estensione	Vai
480173	PIASCO	CN	Bluetongue	E	P	Wed Dec 17 01:00:00 CET 2008	19/01/09	20/03/09	
152879	BARBANIA	TO	Bluetongue	C	P	Fri Oct 09 02:00:00 CEST 2009	06/11/09		
477356	LEMIE	TO	Bluetongue	C	P	Wed Aug 12 02:00:00 CEST 2009	17/09/09		
504486	SAN RAFFAELE CIMENA	TO	Bluetongue	C	P	Fri Sep 25 02:00:00 CEST 2009	26/10/09		

Example of integration with AT for diseases management: SNA & tracing tools

Control Panel

Download ☒ Network ☐ Simulation ☐ Map

Data Source:

User Name:

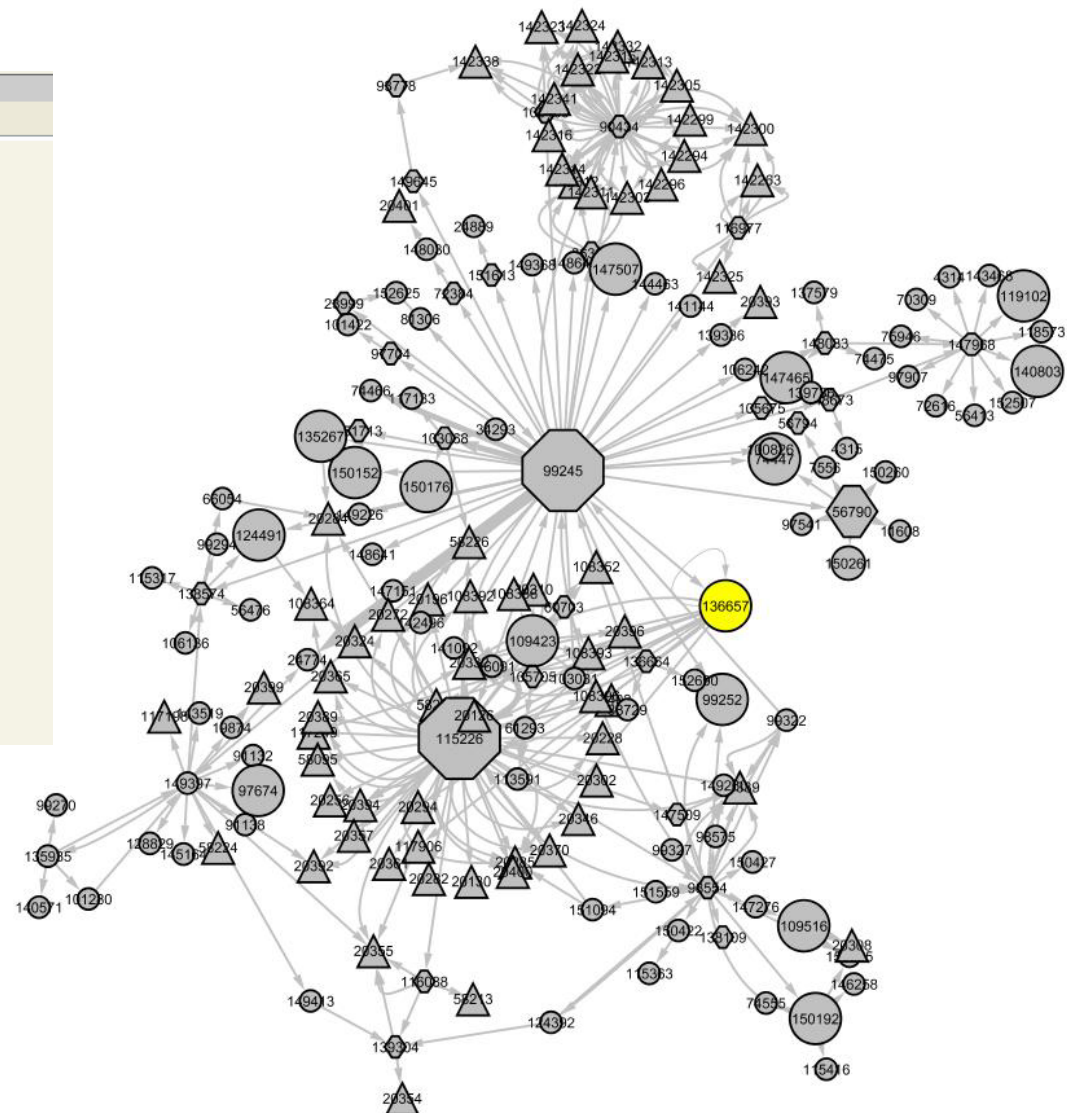
Password:

Function:

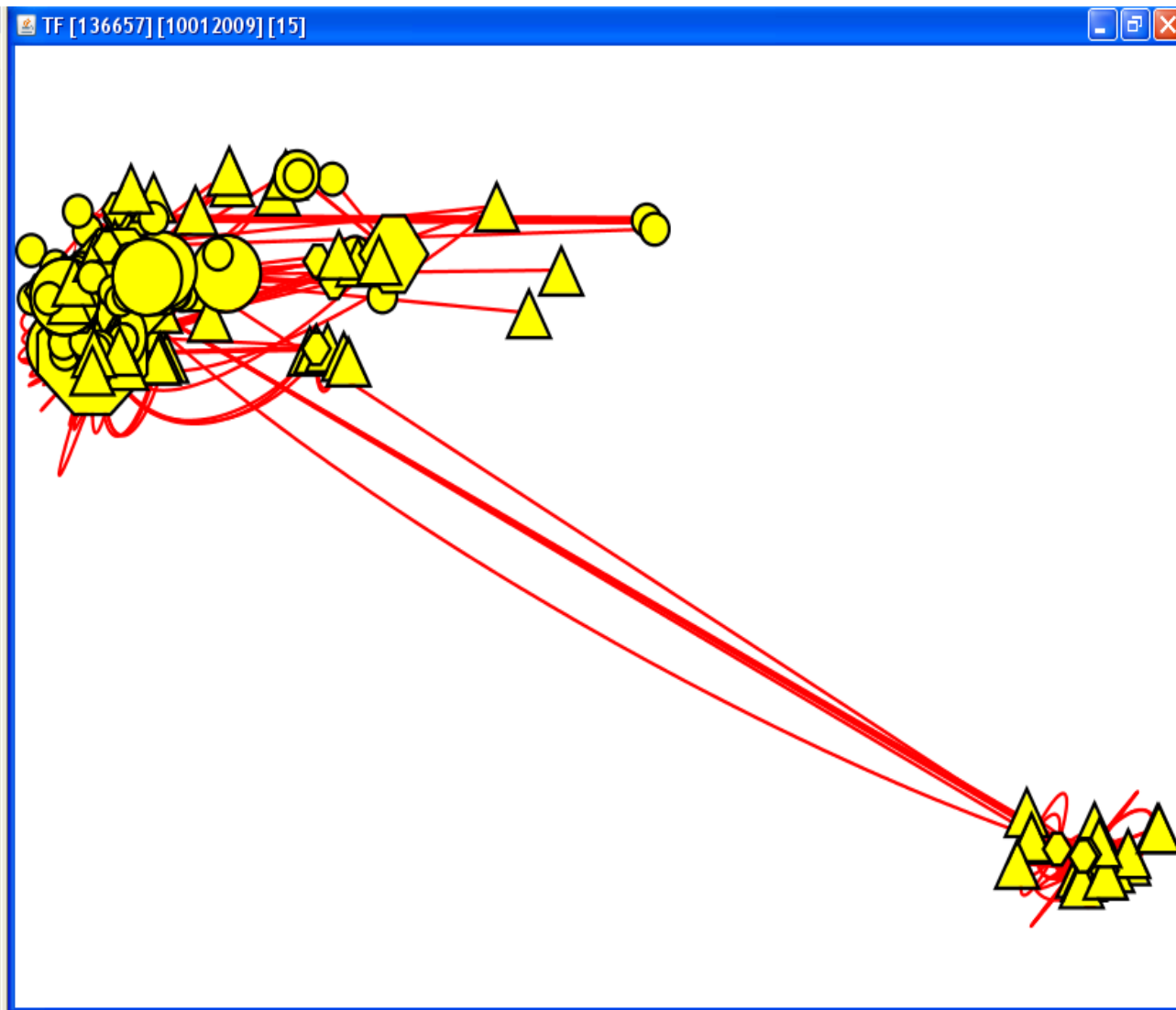
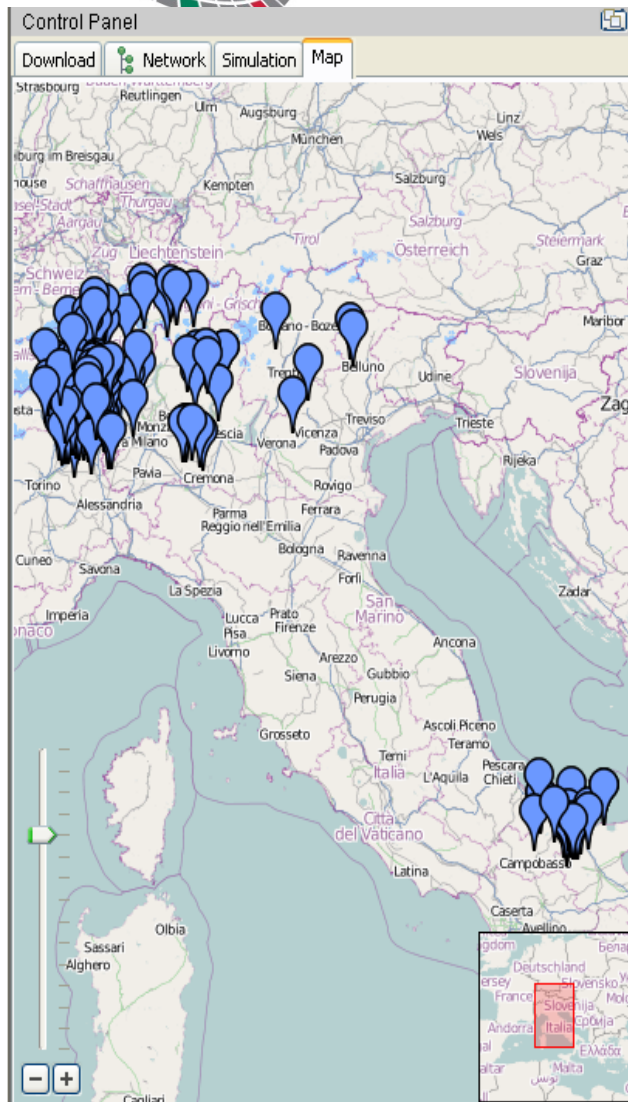
Node:

Date:

Depth:

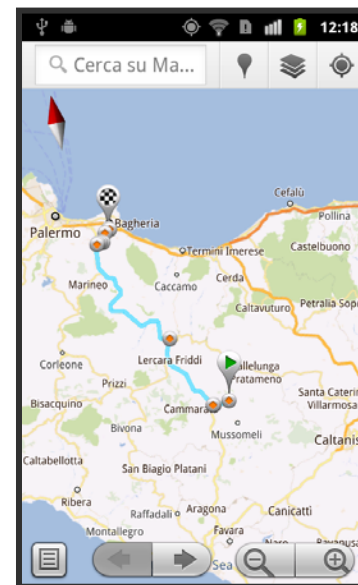


Example of integration with AT for diseases management: SNA & tracing tools



In-field applications

- Smartphones
- Tablets





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Acknowledge

FAO

**IZSAM staff involved in SILABFA
Colleagues from Africa**

Thank you