

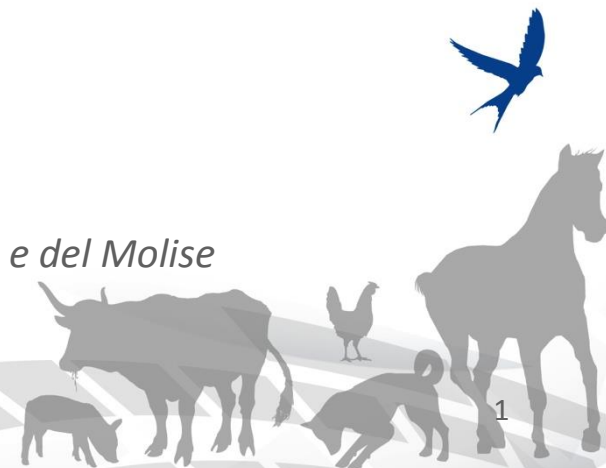
# Disease Emergency Preparedness



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*Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise*

*Tunis, 2 December 2015*



# Basic principles and components of a contingency plan

## Are we ready?

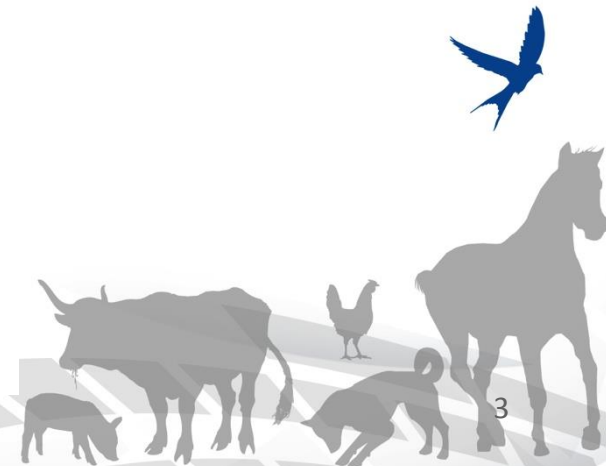


# Basic principles and components of a contingency plan

## What is Contingency Planning?

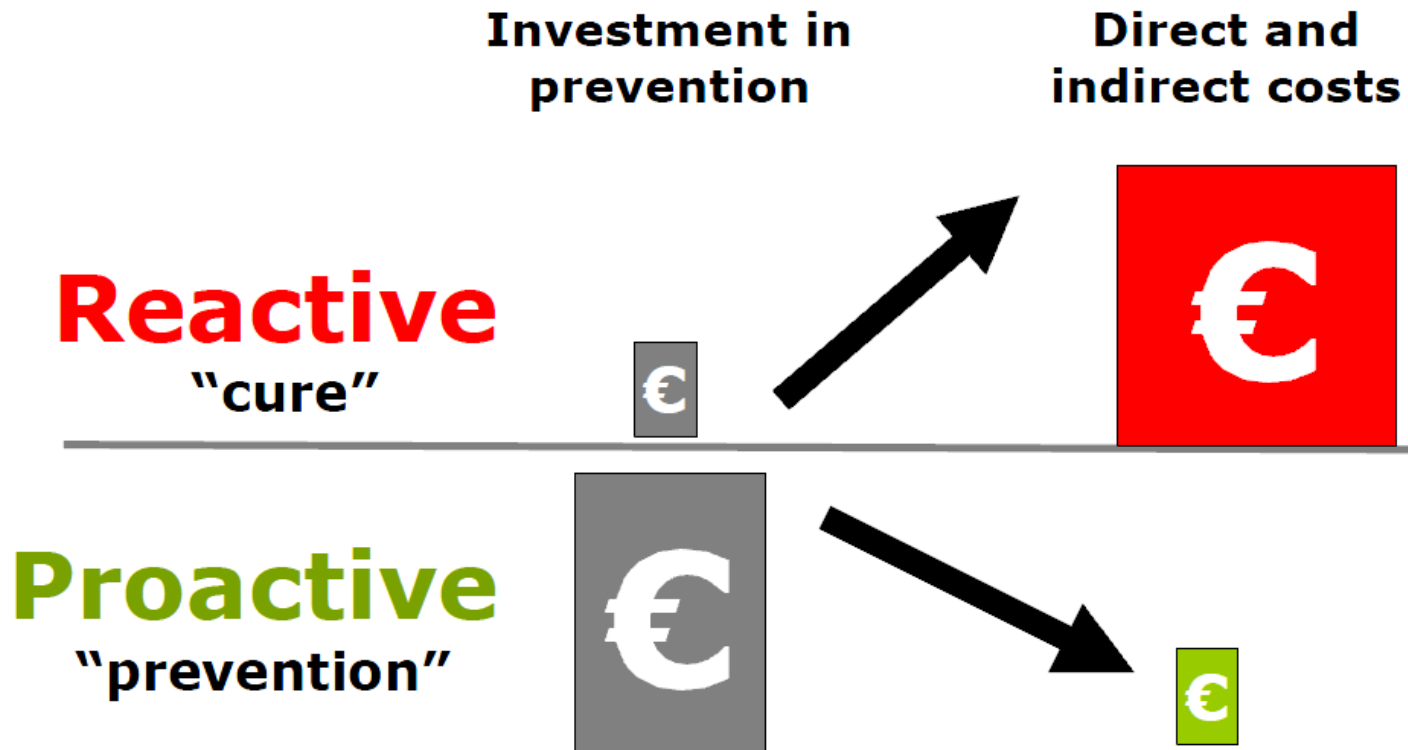
A contingency plan (CP) is a course of action designed to help an organization to respond effectively to a significant future event or situation that may or may not happen.

~~UNPREPARED~~



# Basic principles and components of a contingency plan

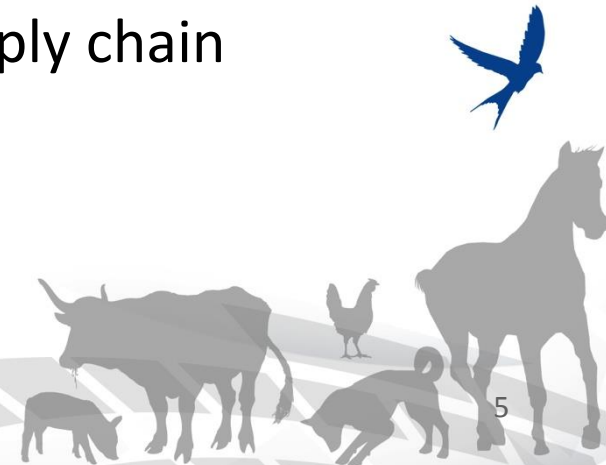
“Prevention is better than cure”



# Basic principles and components of a contingency plan

## What is the aim of a Contingency Plan?

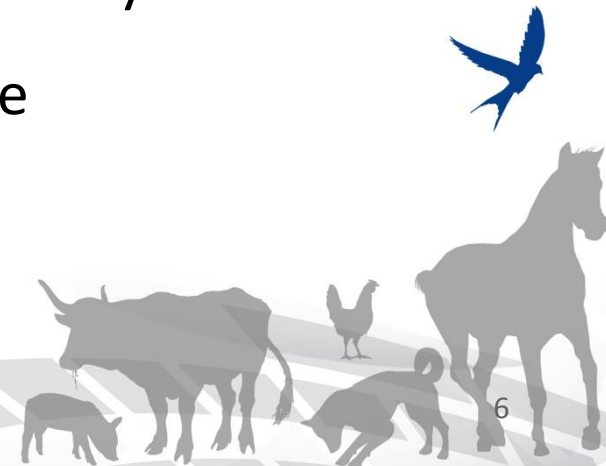
- Protect animal and human health
- Minimise economic loss e.g. culling of animals, movement restrictions
- Minimise the disruption of the food supply chain
- Minimise damage to environment



# Basic principles and components of a contingency plan

## Legal Base for Contingency Plans

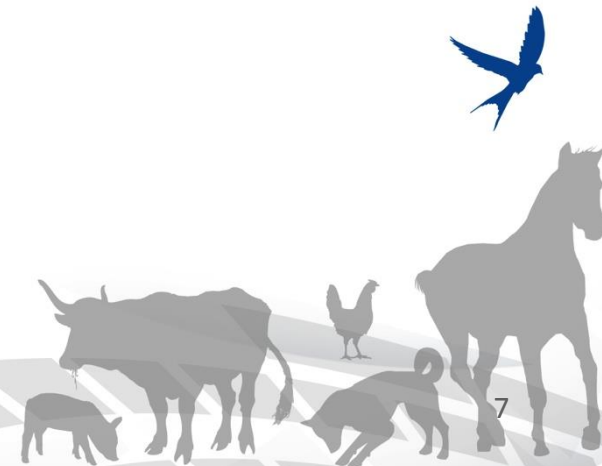
- EU Framework
- National laws
- All necessary powers to implement actions
- Broad enabling powers to allow for flexibility
- Problems of legal and political challenge



# Basic principles and components of a contingency plan

## Contingency planning must cover:

- The pre-epidemic period (“Peace time”)
- The epidemic period (“Wartime”)
- The post-epidemic period (Time of rehabilitation)



# Pre-epidemic period (“Peace time”)



## Disease preparedness

- Veterinary services,
- Procedures
- **Risk or threats assessments,**
- IT-System,
- **Surveillance,**
- Diagnostic capability and capacity,
- International relations,
- ...






# Pre-epidemic period (“Peace time”)

- **Command chain**  
**Clear and efficient command chain**
- **Procedures**  
**Clear and validated procedures for outbreaks management, animal culling, carcass disposal, etc.**  
**Need for training and simulation exercises**
- **Risk assessments**  
**Evaluation of introduction and spread scenarios**
- **Surveillance**  
**Early disease detection**
- **Diagnostic capabilities**



# The epidemic period (“Wartime”)

- 
- Measures at farm level after disease confirmation:
    - valuation of animals,
    - epidemiological investigation,
    - culling of animals,
    - disposal of carcasses,
    - cleansing and disinfection.



# Tools for the management of epidemic emergencies



**ACTION** should follow **DECISION** rapidly

- **Command chain** must be short
- **Procedures** tested during simulations
- **Resources** availability (financial, equipments, personnel)



# Information system for emergency management

Decision-makers and in-field personnel must have quick access to **updated and reliable information**

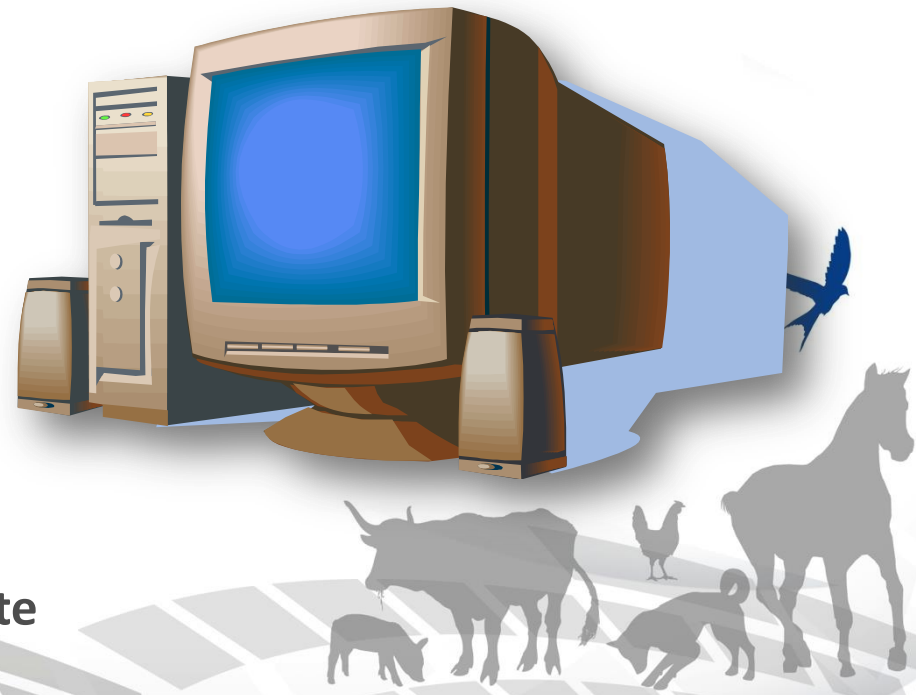
Usable

Systematic

DATA

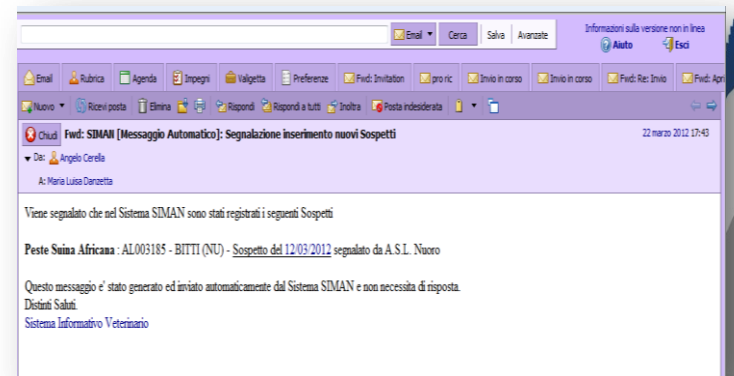
Accurate

Complete



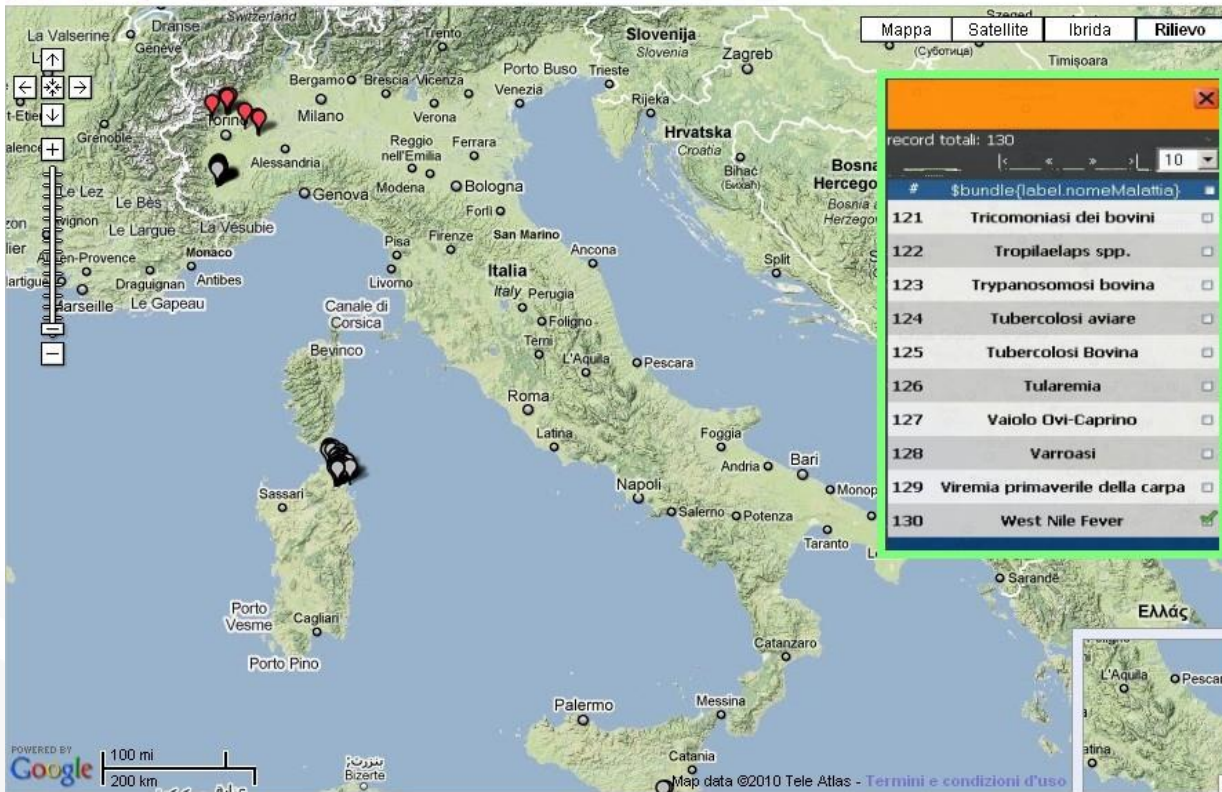
# Requirements of an information system for emergency management

- Easy to access and good speed performances
- Friendly-user system
- Collecting all information needed and make available all useful data from other existing systems (e.g. I&R system)
- Alert system available
- GIS component



# Tools for emergency 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		

Ministero della Salute

Posizione corrente Italia > Piemonte > ID

Ricerca  
Ricerca con buffer  
Legenda

Seleziona layer:  
Focolai:  Mostra  Nascondi

Parametri:  
Cerca in:

Apertura di VetInfoExport.xls

È stato scelto di aprire

VetInfoExport.xls

che è un: Foglio di lavoro di Microsoft Excel da: http://dllorenzoi/8080

Che cosa deve fare Firefox con questo file?

Apri con  Microsoft Excel for Windows

Salva file

Da ora in avanti esegui questa azione

A1	A	B	C	D	E	F	G	H
	Codice azienda	ID azienda	Comune	Provincia	Progressivo allevamento	Specie	Aggregazione	Proprietario
1	130T0133	477042	LEINÀ FÀ'	TO	1235160	BOVINO	BOVINI E BUFALINI	BOCCACCIO ROSA
2	130T0141	477050	LEINÀ FÀ'	TO	2244962	PECORA	OVINI E CAPRINI	CORRADO MARISA
3	265T0034	501290	SETTIMO TORINESE	TO	2885029	SUINO	SUIDI	NICOLA BERNARD
4	314T0059	499111	VOLPIANO	TO	2342512	CAPRA	OVINI E CAPRINI	TORASSA GIOVANN
5	314T0015	497966	VOLPIANO	TO	1234594	BOVINO	BOVINI E BUFALINI	BORGE GIOVANNI
6	265T0011	499167	SETTIMO TORINESE	TO	2975535	POLLO	AVICOLI	BOLLITO MARGHE
7	249T0017	506802	SAN MAURO TORINESE	TO	3468724	BOVINO	BOVINI E BUFALINI	VILLA LUCA
8	265T0013	500256	SETTIMO TORINESE	TO	698010	BOVINO	BOVINI E BUFALINI	BOSIO GIANMARIO
9	265T0084	501313	SETTIMO TORINESE	TO	3010729	CAVALLO	EQUIDI	GANDOLFO VINCE
10	265T0067	501307	SETTIMO TORINESE	TO	2051026	CAPRA	OVINI E CAPRINI	ARCURI FRANCES
11	314T0029	497974	VOLPIANO	TO	1234645	BOVINO	BOVINI E BUFALINI	POLETTI GABRIEL
12	192T0060	492207	PINO TORINESE	TO	3006932	CAVALLO	EQUIDI	PALLARO GIUSEP
13	265T0019	501260	SETTIMO TORINESE	TO	698012	BOVINO	BOVINI E BUFALINI	CERATO MARIO
14	018T0047	129365	BALDISSERO TORINESE	TO	762871	BOVINO	BOVINI E BUFALINI	GHIVARELLO LUIG
15	018T0041	129360	BALDISSERO TORINESE	TO	762887	BOVINO	BOVINI E BUFALINI	VERGNANO FRAN
16	112T0030	467475	GASSINO TORINESE	TO	1234645	BOVINO	BOVINI E BUFALINI	ZUCCA MARIO
17	068T0009	370953	CASTIGLIONE TORINESE	TO	3010223	CAVALLO	EQUIDI	DE BIASI LUIGINO
18	265T0012	499168	SETTIMO TORINESE	TO	807626	BOVINO	BOVINI E BUFALINI	BONINO MICHELE
19	034T0003	230083	BRANDIZZO	TO	2677820	SUINO	SUIDI	PREGNOLATO CAP
20	018T0044	129383	BALDISSERO TORINESE	TO	762868	BOVINO	BOVINI E BUFALINI	AGRINAPIONE S.S
21	180T0020	499929	PAVAROLO	TO	3006424	CAVALLO	EQUIDI	BORNESE CLAUD
22	180T0023	638785	PAVAROLO	TO	3599002	ASINO	EQUIDI	RENDINA COSIMO
23	112T0026	467473	GASSINO TORINESE	TO	1234643	BOVINO	BOVINI E BUFALINI	VITTONI LUIGI
24	112T0034	467477	GASSINO TORINESE	TO	3010059	CAVALLO	EQUIDI	TARETTO PAOLO
25	112T0034	467477	GASSINO TORINESE	TO	1869186	PECORA	OVINI E CAPRINI	TARETTO PAOLO
26	112T0011	467462	GASSINO TORINESE	TO	1234632	BOVINO	BOVINI E BUFALINI	ALLEGRUCCI RINA
27	158T0003	483532	MONTALDO TORINESE	TO	706203	BOVINO	BOVINI E BUFALINI	CASALEGNO EUG
28	082T0028	396744	CHIVASSO	TO	2815967	BOVINO	BOVINI E BUFALINI	BONOMO GIUSEP
29	161T0066	482379	MONTANARO	TO	2305096	BOVINO	BOVINI E BUFALINI	PRONO GIOVANNI
30	161T0032	482365	MONTANARO	TO	1234857	BOVINO	BOVINI E BUFALINI	MONDO FRANCO
31	144T0001	504799	MARENTINO	TO	1313395	SUINO	SUIDI	BARUETTO ANNA
32								

Totale: 500 Esporta la tabella:

ID azienda	Comune	Pr
477042	LEINÀ FÀ'	TO
477050	LEINÀ FÀ'	TO
501290	SETTIMO TORINESE	TO
499111	VOLPIANO	TO

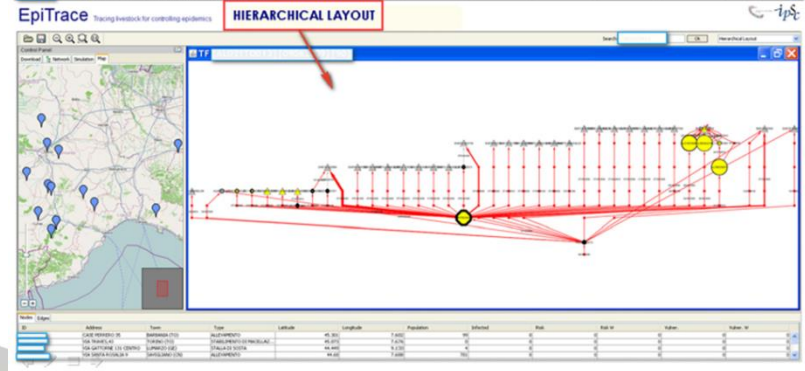
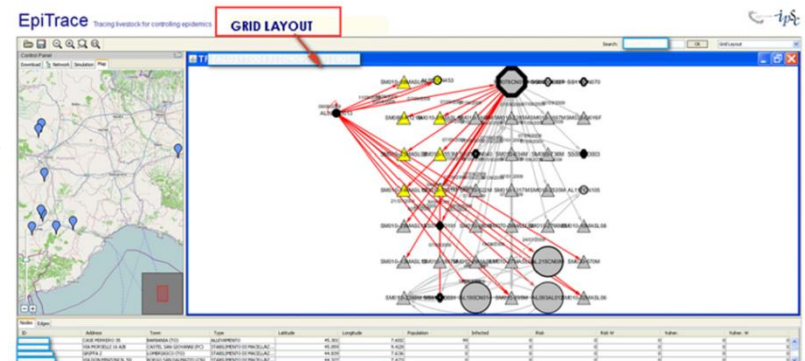
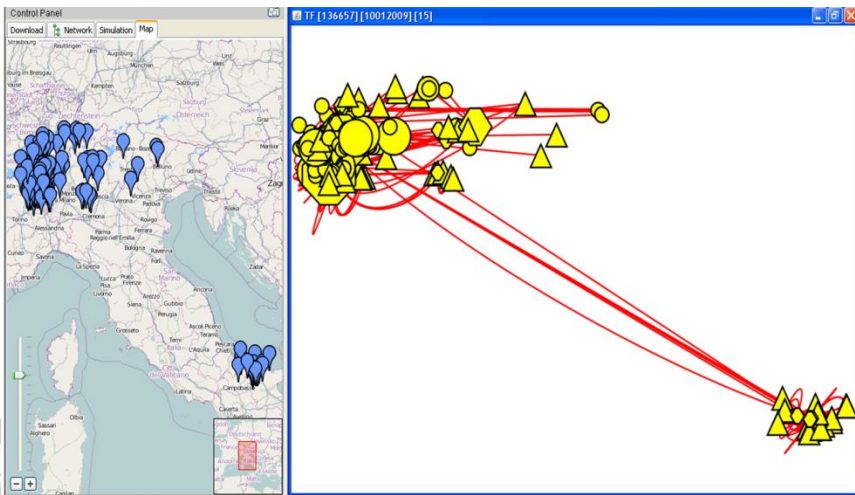
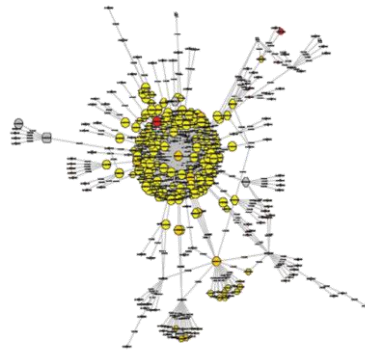
Pronto

NUM



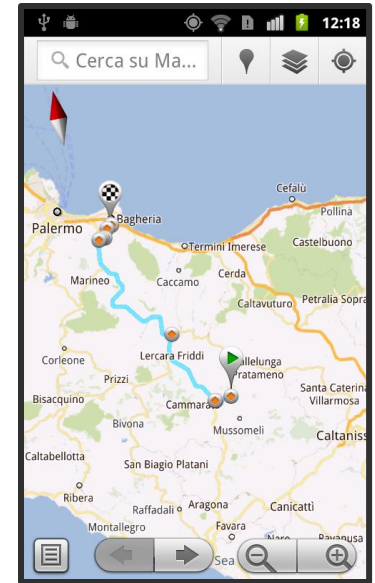
# Representation of animal movement networks

To quickly visualize all connections directly and indirectly linked to a specified herd/flock (outbreak) during a specified time period



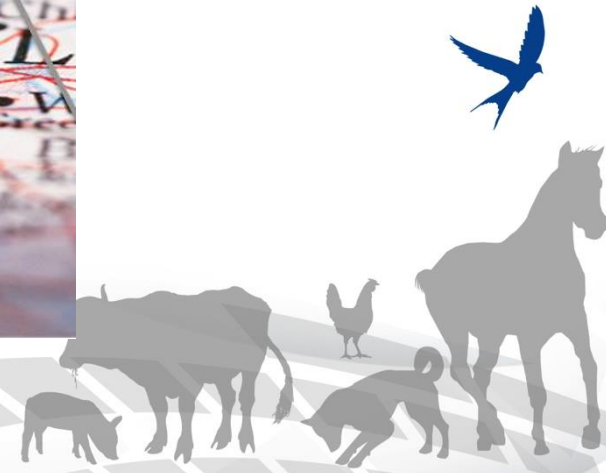


- Smartphones
- **Tablets**

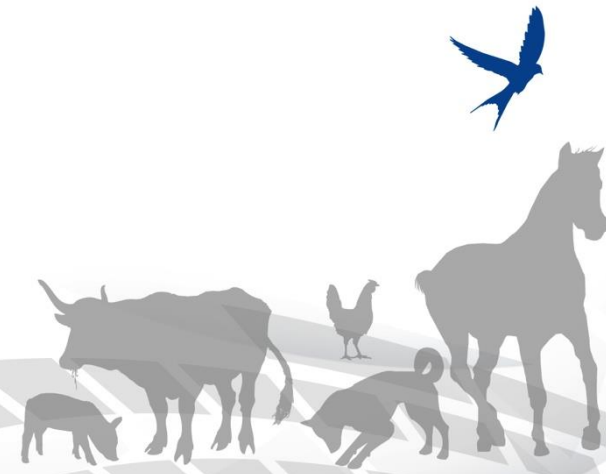
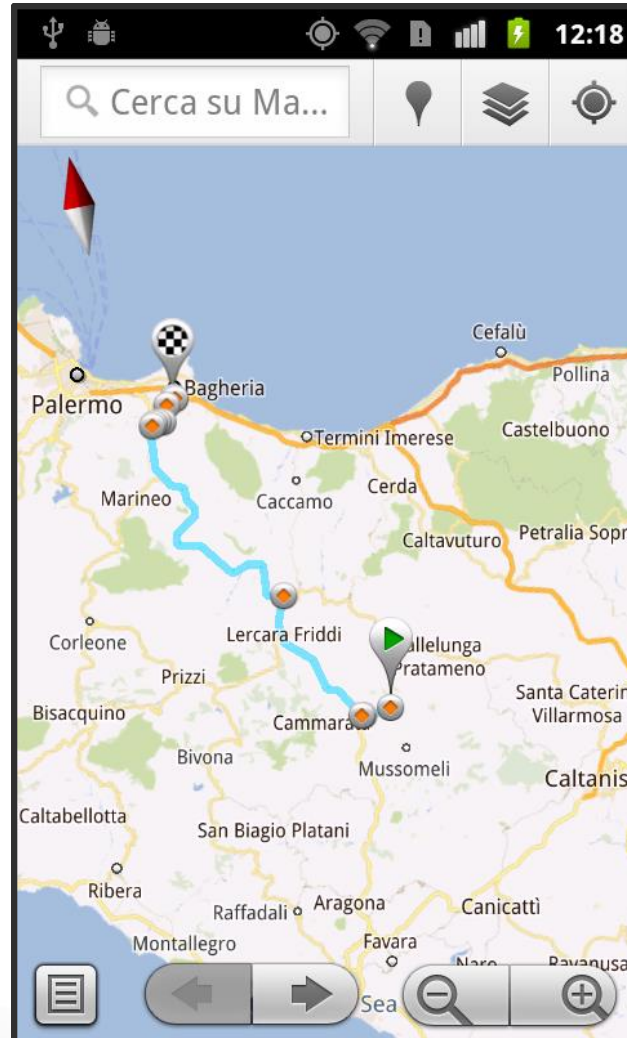


# Applications for Veterinary Services

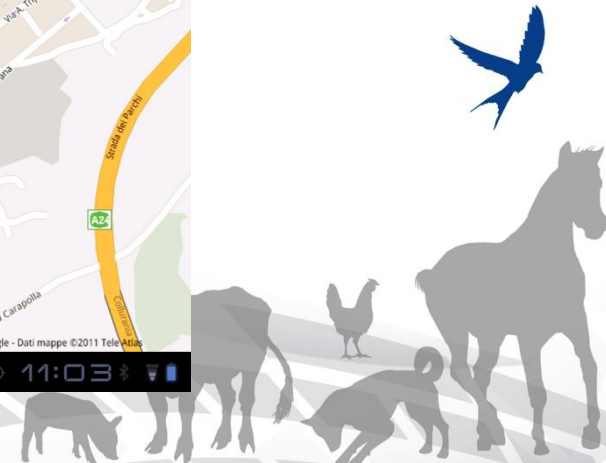
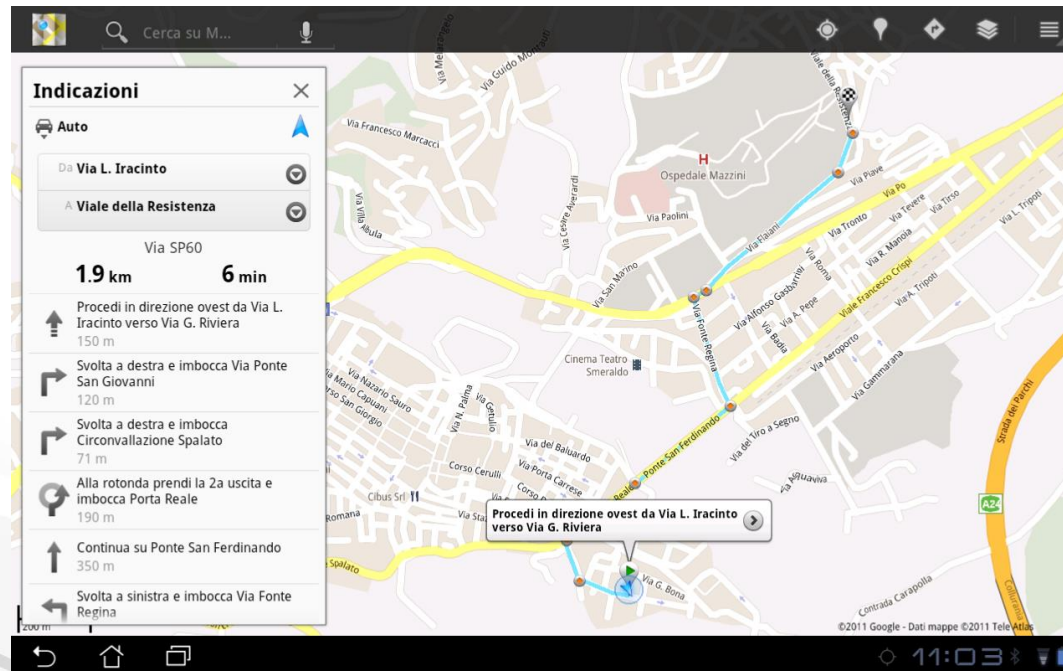
- Controls of animal movements
- Holdings geo-location
- On-line queries on herd registers
- Check-list / forms compilation
- etc.



# An example: control of animal movement



- Coordinates verification and registration
- Buffer
- Displaying herds/flocks on the map
- Access to holding data
- Access to other applications



# Checklists – forms compilation

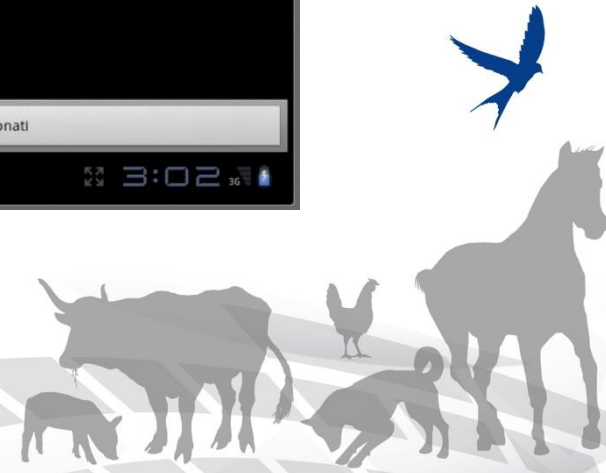


The screenshot shows a mobile application interface for a checklist. It features a dark background with three checklist items, each with a title, a timestamp, and a status checkbox. The bottom of the screen has a navigation bar with two buttons: 'Seleziona Tutti' and 'Invia Selezionati'. The system status bar at the very bottom shows the time as 3:02 and various icons for connectivity and battery.

Checklist	Timestamp	Status
Checklist	17-10-2011 07:15:57	<input checked="" type="checkbox"/>
Checklist	17-10-2011 07:48:29	<input type="checkbox"/>
Checklist	03-01-2012 15:59:17	<input checked="" type="checkbox"/>

Seleziona Tutti      Invia Selezionati

3:02



# The post-epidemic period (Time of rehabilitation)

- Post epidemic screening,
- Compensation,
- Re-population,
- etc.



