

One Health

*oltre lo slogan;
spunti operativi per una
analisi del rischio
integrata
in sanità pubblica*

ONE HEALTH



Romano Zilli
IZSLT

Frosinone 19.10.18





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana M. Aleandri

One Health
Connecting Human, Animal and Environmental Health

FAO/OIE/WHO
Tripartite Concept Note

MAIN ACHIEVEMENTS 2010 – 2017

ANTIMICROBIAL RESISTANCE

RABIES

ZOONOTIC INFLUENZA

ZOONOTIC TUBERCULOSIS

MERS CoV





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana M. Aleandri

FAO/OIE/WHO

The Tripartite's Commitment

Vision 2017

*Providing multi-sectoral,
collaborative leadership
in addressing health challenges*

Antimicrobial resistance

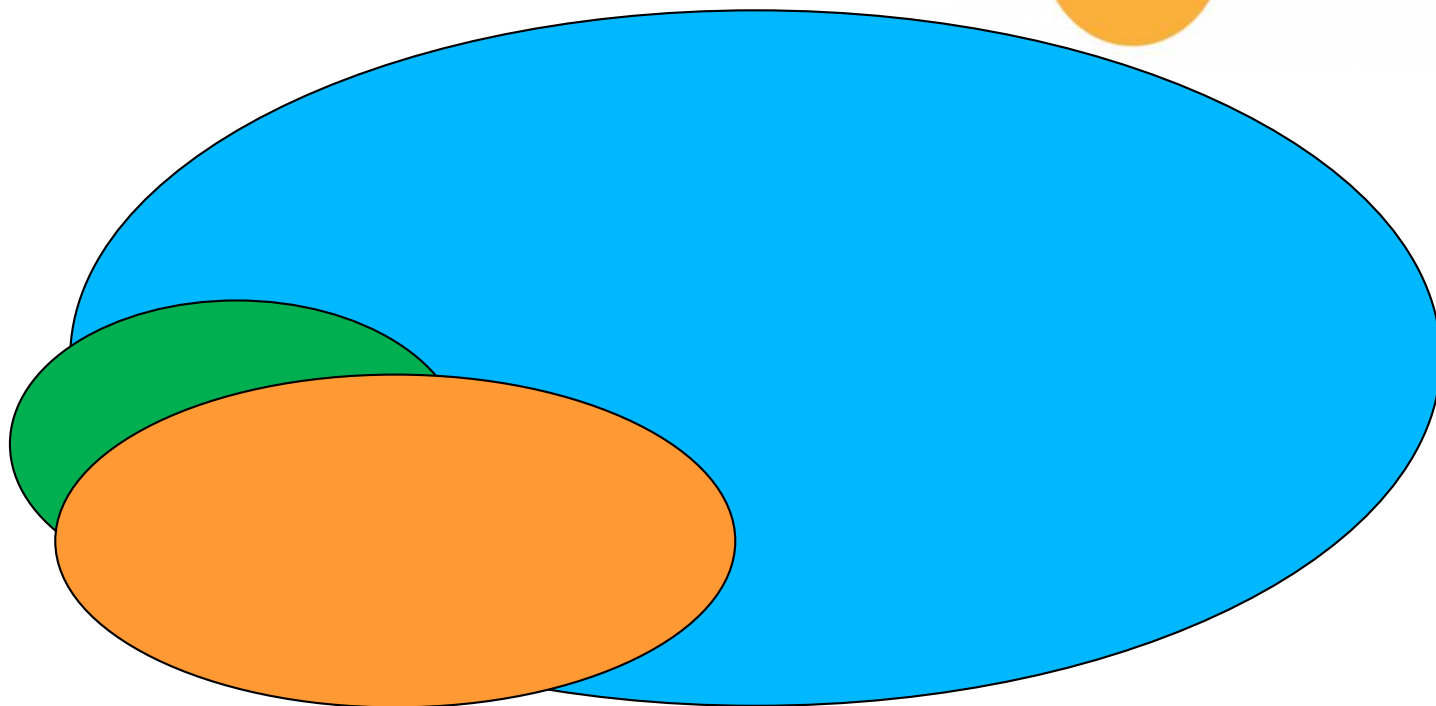
**Reinforcement of national services in human
health, animal health and food safety**

Early warning and surveillance/monitoring systems

**Foresight, preparedness and response to emerging, reemerging
and neglected infectious diseases**



ONE HEALTH





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

TERMINOLOGIA COMUNE

PREVENZIONE

PROFILASSI

ANALISI del RISCHIO

SICUREZZA

GESTIONE DATI

PRIORITIZZAZIONE (RATING/CATEGORIZZAZIONE)





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*





Prioritisation of EU intervention

The new Animal Health strategy must be seen as an integrated **risk assessment** and **management strategy** focusing on risks of EU relevance.

- **Categorisation** of biological and chemical risks according to level of relevance for the EU;
- Agreement on the **acceptable** level of risk;
- Setting of **priorities**, quantifiable targets and performance indicators;
- Setting of the amount of **resources** to be committed to identified threats.



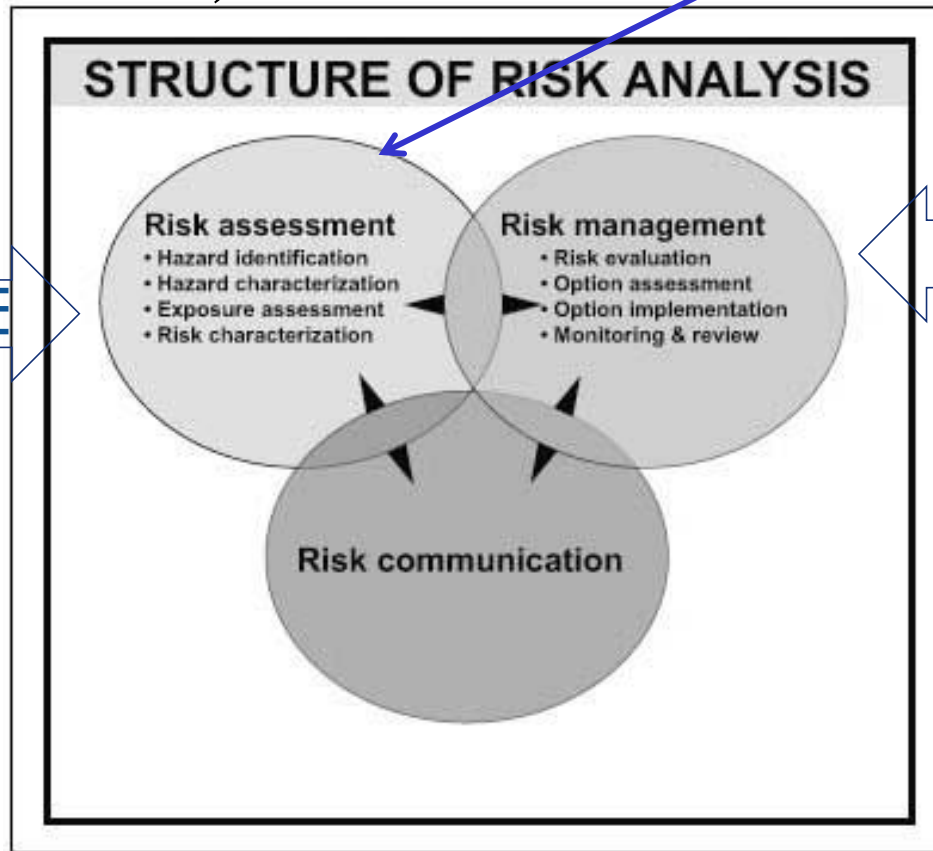
ANALISI DEL RISCHIO

(Reg. 178/2002)



EFSA

SCIENCE



POLICY

Decide ALOP*
Measures to
reduce and
mantain it

Quantification
of risk

* ALOP: Appropriate Level of Protection

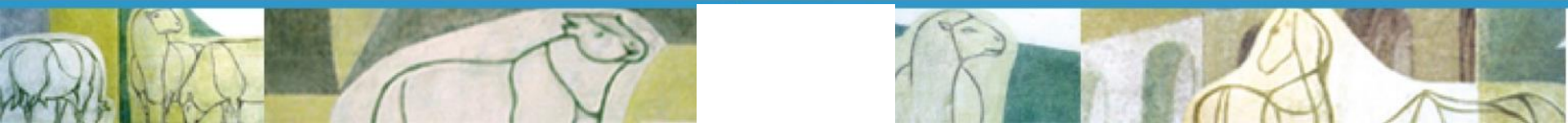


European
Commission

Risk vs Hazard



RISK = HAZARD x EXPOSURE



Risk & hazard

HAZARD: any agent (biological, chemical or physical) or condition, with the potential to cause an adverse effect to health

RISK: likelihood of identified hazards causing harm in exposed population in a specified time frame, including the severity of consequences

EXPOSURE: the extent to which the recipient is subjected or exposed to a hazard



Hazards: EXAMPLES

FOOD SAFETY

Salmonella
(e.g. Reg.852/04 and Reg.2074/05)

Dioxin

Radionuclides

Foreign bodies

LADDER

WATER

ASBESTOS

SMOKING





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

Concetti integrativi

Quantitative vs Qualitative Risk Assessment

Risk–benefit analysis

Cost benefit analysis

Impact assessment

Risk based categorisation

Evidence based decision

Precautionary principle





SPS WTO

CODEX ALIMENTARIUS

I PRINCIPI

- | **ALOP**: Appropriate Level of Protection (**livello di protezione appropriato per una popolazione**, ovvero numero di casi/anno tollerabili, dovuti ad un determinato pericolo *alimentare*)
- | **FSO**: Food Safety Objectives (**concentrazione di un patogeno** negli alimenti tale da mantenere lo stato di salute della popolazione nei limiti tollerabili)



RISK MANAGEMENT

TOLERATED RISK vs ZERO RISK

RISK MANAGEMENT

RISK
COMMUNICATION

RISK
PERCEPTION

RISK MANAGEMENT - GESTIONE

Reg. 178/2002

SCELTE POLITICHE

MISURE DI SANITA'
PUBBLICA

ANALISI COSTO/BENEFICIO

RIMODULAZIONE
PERIODICA

Reg. 882/2004 ora 625/2017

Categorizzazione sulla base
del RISCHIO
(QUALITATIVO)

REGIMI AUTORIZZATIVI
REGOLAMENTARI





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

RISCHIO CHIMICO AMBIENTALE

FOOD / NON FOOD

ORIGINE:

NATURALE / ANTROPICA

COSTANTE / EPISODICA

ACCIDENTALE / FRAUDOLENTA

...





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

GESTIONE DATI STRUMENTO OPERATIVO

SETTORE ZONOSI

Gestione dati

Human ↔ Animals

In miglioramento

SETTORE
TOSSICOLOGIA
AMBIENTALE

PNR

??

Relazioni successive





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

PIANO NAZIONALE RESIDUI

VALUTAZIONE DEL
RISCHIO

GESTIONE DEL
RISCHIO

Monitoraggio di fondo

Campionamento
mirato/su sospetto





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

Registration, Evaluation, Authorization of CHEMICALS (REACH)

Plant Protection Products, Biocides and Chemicals in the EU

Classification & Labeling of Chemical Substances & Mixtures

Efficacy & Biological Assessment Dossiers

Endocrine Disruption

Environmental Risk Assessment of Plant Protection Products, Biocides,

Veterinary Medicines & Pharmaceuticals in the EU

Import Tolerances & **Maximum Residue Levels (MRL)**

Regulation & Safety of Cosmetics





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

Aquatic Biology

Assessment & Management of Natural Resource Capital

Bioavailability & Exposure Assessment

Contaminated Sediments Assessment & Management

Ecological & Environmental Risk Assessment

Economic Assessment of Natural Resource Damages

Eco-Sustainability & Ecological Services Assessment

Environmental Assessment of Technologies & Products

Environmental Data & Analytics

Environmental Modeling

Environmental Risk Assessment for Pharmaceuticals

Geospatial & Landscape Analysis

Natural Resource Damage Assessment

Oil Spill Assessment

Terrestrial Biology

Threatened & Endangered Species Assessment

Wetlands Assessment & Construction





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

Chemical Fate & Transport

Environmental Chemistry & Geochemistry

Environmental Costs & Liabilities Consulting

Environmental Forensics

Environmental Risk Management

Groundwater Modeling

Hazardous Waste Management

Historical Reconstruction of Chemical Releases

Oil & Gas Pipeline Safety

Radiation & Nuclear Exposure, Risk Assessment

Surface Water Contaminant Transport

Water & Wastewater Treatment, Management & Recycling

Water Resources Engineering





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*

Codex Alimentarius

Due Diligence

Food Contact Materials

Food Ingredient, Product & Beverage Recall

Food Safety & Nutrition

Intake & Dietary Risk / Safety Assessments

Nutritional Epidemiology

Risk Communication





Istituto Zooprofilattico Sperimentale
del Lazio e della Toscana *M. Aleandri*



European
Commission

