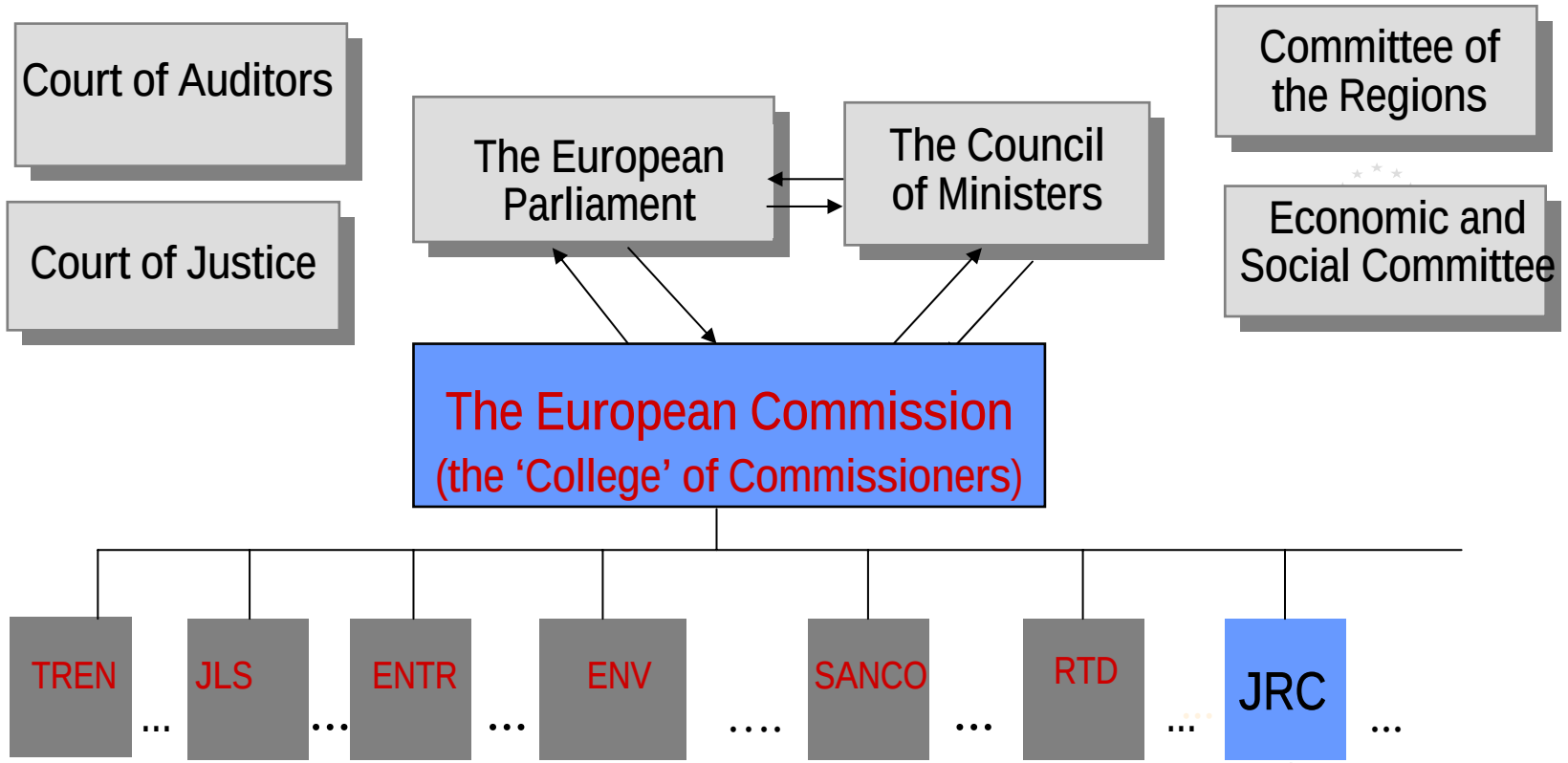
IDRC 2008
Standardisation – a benefit for safety and security

TRiVA

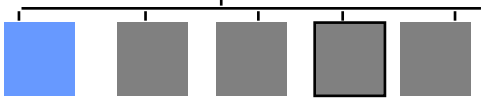
integrated Traceability, Risk and Vulnerability Assessment

Thomas Hartung & TRiVA team

at EU JRC, Ispra, Italy



Directorates General: the "Commission services"



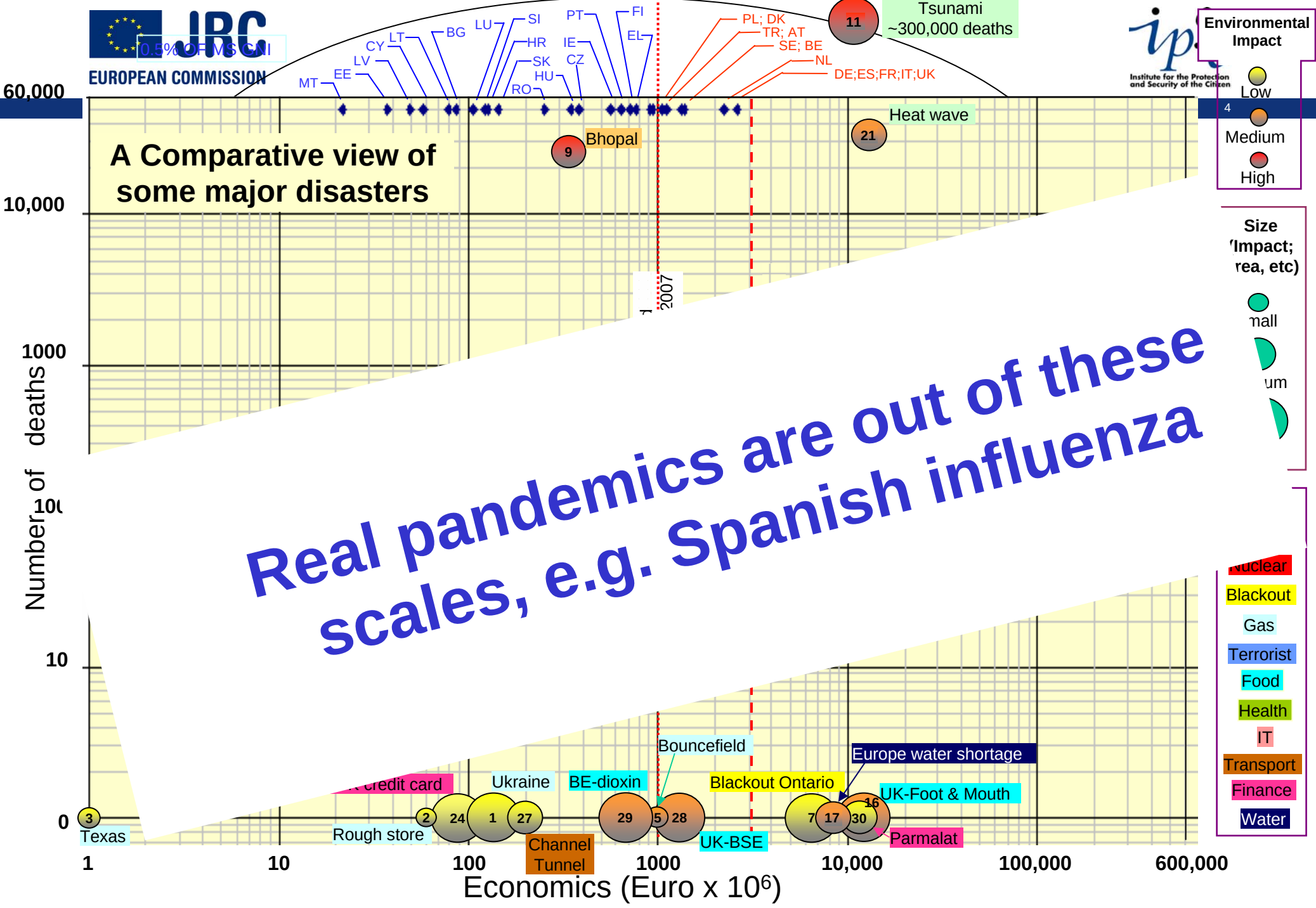
JRC Institutes: TRIVA

The EU is a common market of 500 million people with free travel of persons and goods….

… and free spread of infectious diseases.

Since pathogens know no border, we need common, i.e. standardized approaches.

Creation of the European Center for Disease Control, Stockholm, as a first step.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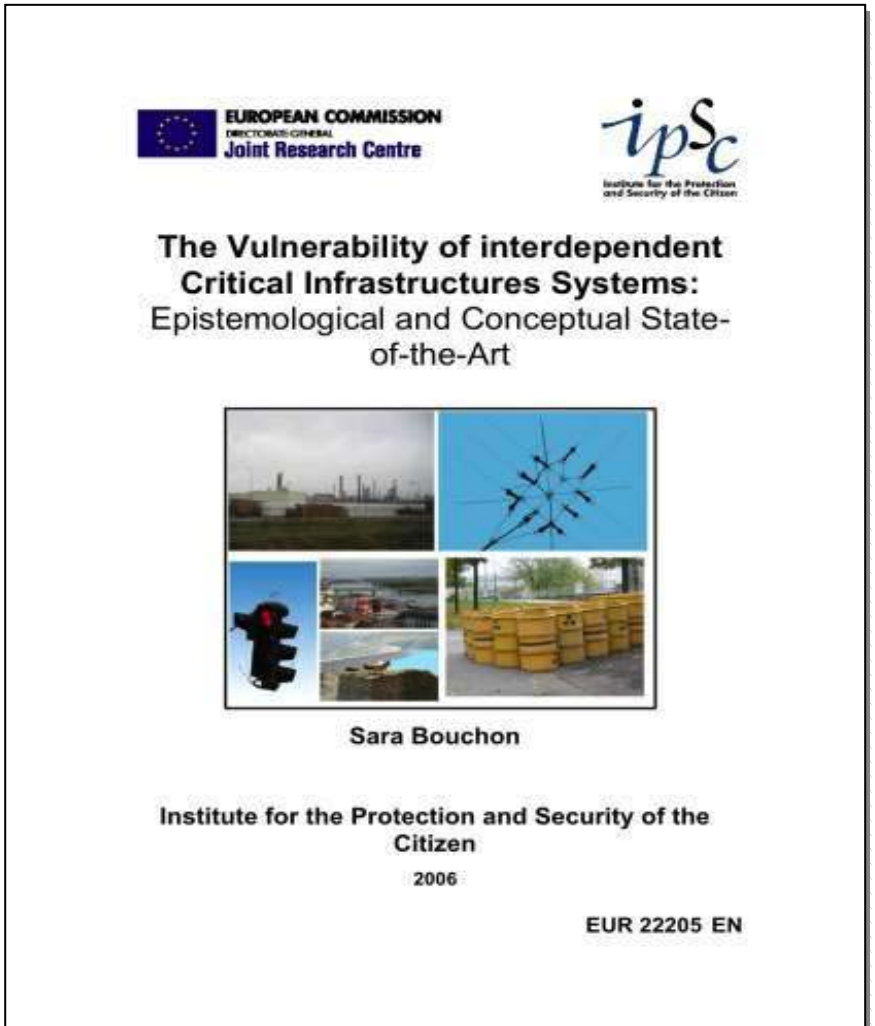
A Comparative view of some major disasters
Real pandemics are out of these scales, e.g. Spanish influenza
Tsunami ~300,000 deaths
11
Heat wave
21
Bhopal
9
2007
MT
EE
LV
CY
LT
BG
LU
SI
HR
SK
HU
RO
PT
IE
CZ
FI
EL
PL; DK
TR; AT
SE; BE
NL
DE;ES;FR;IT;UK
Environmental Impact
Low
4
Medium
High
Size (Impact; rea, etc)
nall
um
Nuclear
Blackout
Gas
Terrorist
Food
Health
IT
Transport
Finance
Water
Texas
Credit card
Rough store
Ukraine
Channel Tunnel
BE-dioxin
Bouncefield
UK-BSE
Blackout Ontario
Europe water shortage
UK-Foot & Mouth
Parmalat
Number of deaths
60,000
10,000
1000
100
10
0
1
10
100
1000
10,000
100,000
600,000
Economics (Euro x 10⁶)

Thought-starter

(Tox Sci 85, 422-428, 2005)

Standardization of criteria and terminology


EUROPEAN COMMISSION
DIRECTORATE-GENERAL
Joint Research Centre

Institute for the Protection and Security of the Citizen

The Vulnerability of interdependent Critical Infrastructures Systems: Epistemological and Conceptual State-of-the-Art

Sara Bouchon

Institute for the Protection and Security of the Citizen

2006

EUR 22205 EN

Example from other field:

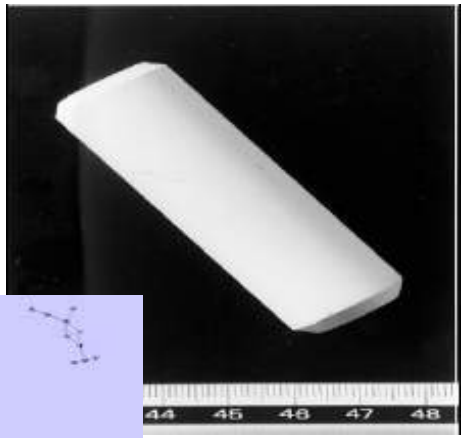
Developed proposals for cross-cutting criteria and terminology for Critical Infrastructure

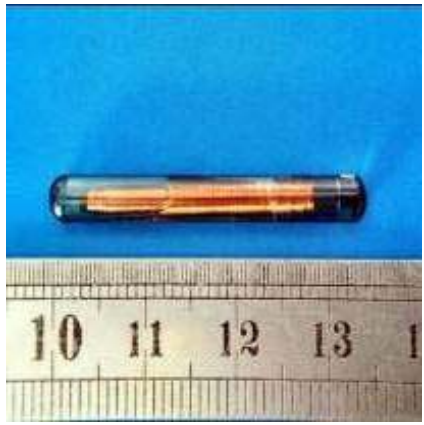
Support to the Critical Infrastructure Protection Directive (political approval June 2008)

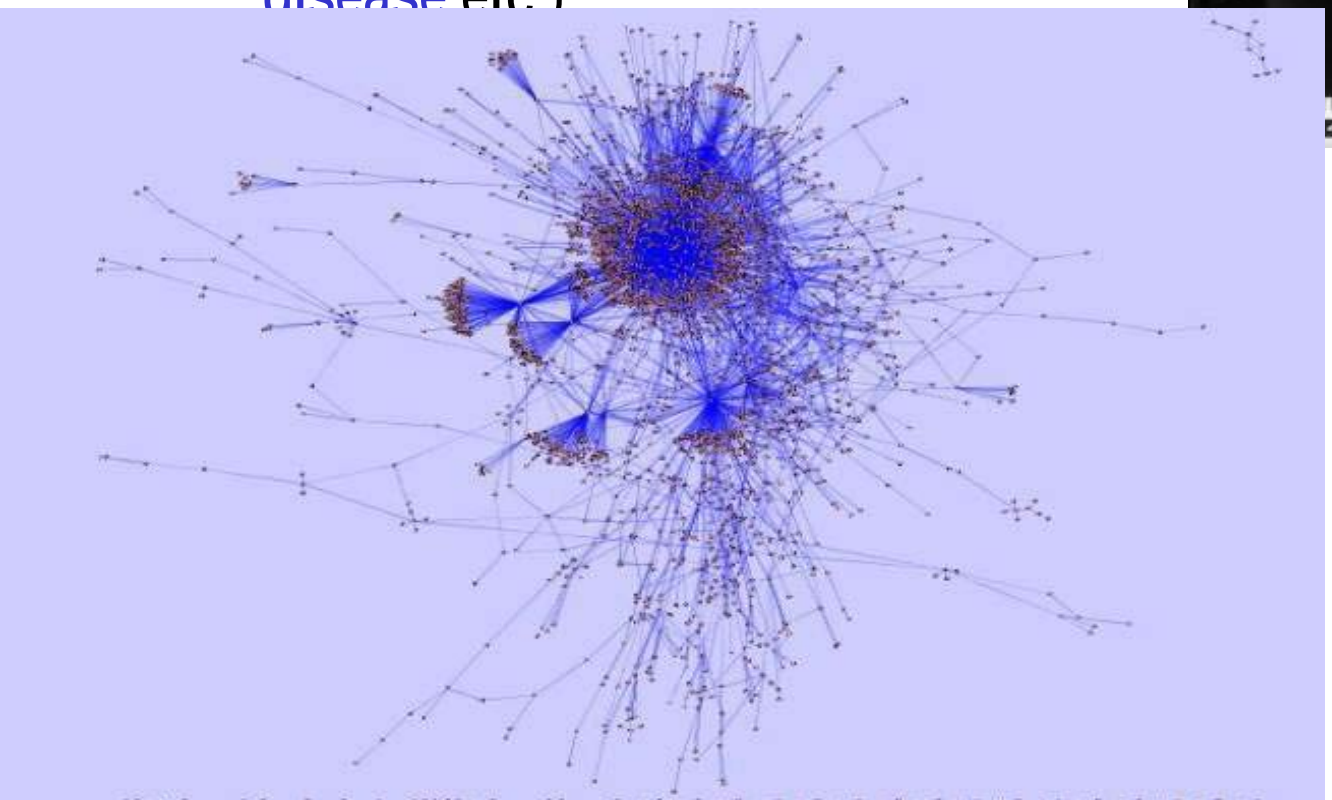
We need to speak the same language (standardized terminology) to agree on joint programs

Animal pandemics - Tracing of animals and transports

Improved traceability of livestock and food for biological hazards (Mad cow disease, food and mouth disease etc.)







- Tracing throughout the
- production chain by

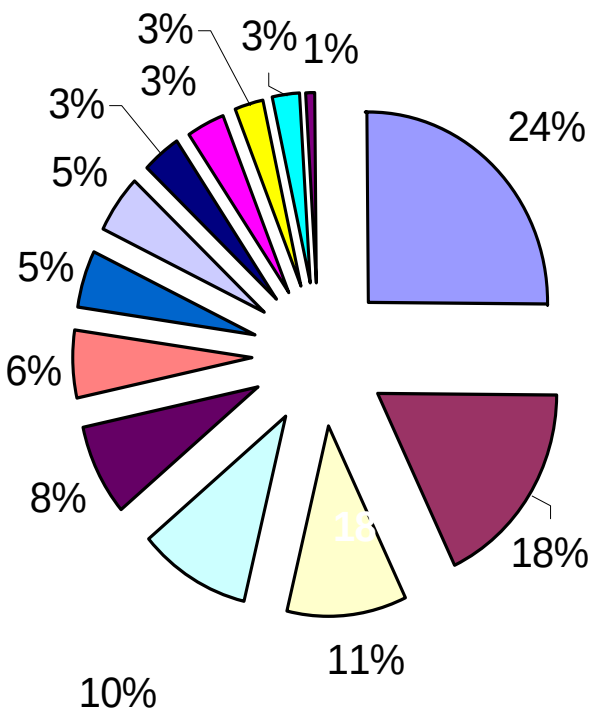
1. Radio Frequency Identification (RFID)
2. Using Network Analysis and GIS, e.g. for showing animal movement patterns relevant for the spread of infections

Example from another field: Major Accident and Hazard Bureau

→ **joint analysis of events**

Collaborative projects and expert working groups to study accidents/ best practices

organizational (e.g., management systems, performance indicators)



Technical causes - accidents involving chemical reactions (MARS database)

Need for standardization

- Terminology
- Reporting
- Event analysis, best practices
- Pan-European (better global) monitoring

and

- Standardization before doing the work
- Avoidance of (national) duplication
  mutual exchange and acceptance of data
- Joint and mutual training

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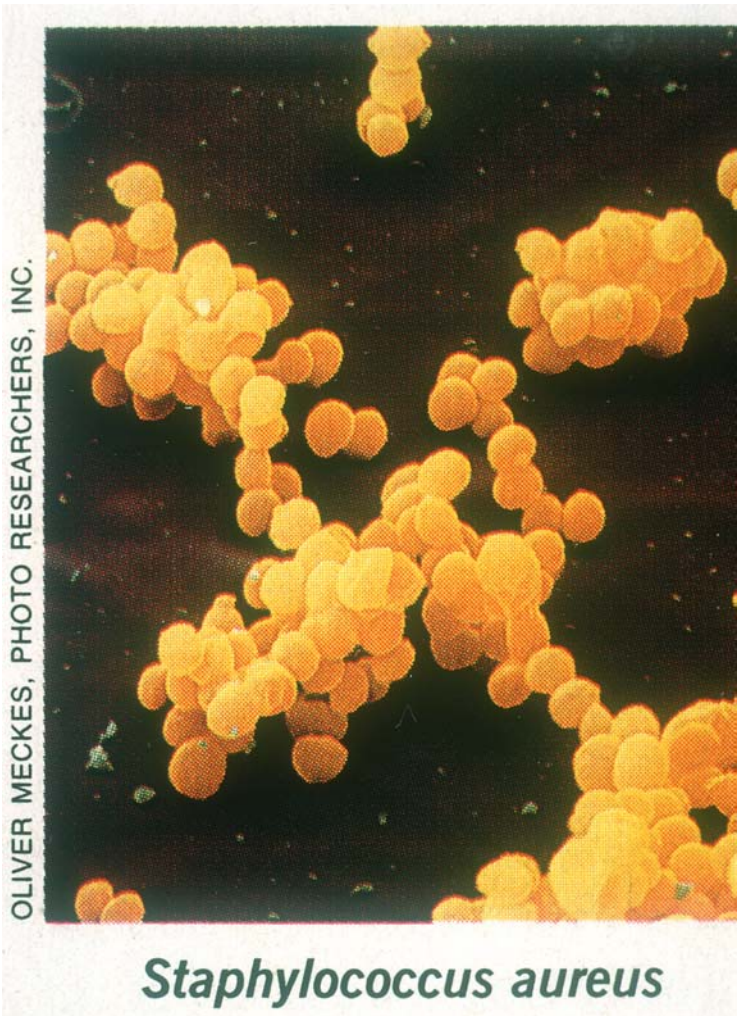

Let's go for

More
Adequate
Detection of risk
Mutual
Acceptance of
Data
Make
A
Difference