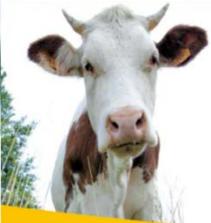




2002 –A new dawn in European Food Safety

Tony Hardy
Chair of EFSA's Scientific Committee

Joint International Symposium, BfR
30th November 2018



History food scares
Consequences
Legislative change
EFSA
Member States Institutions
Drivers for changes:
in risk
In risk assessment
Where are we going?



BOVINE SPONGIFORM ENCEPHALOPATHY (BSE)

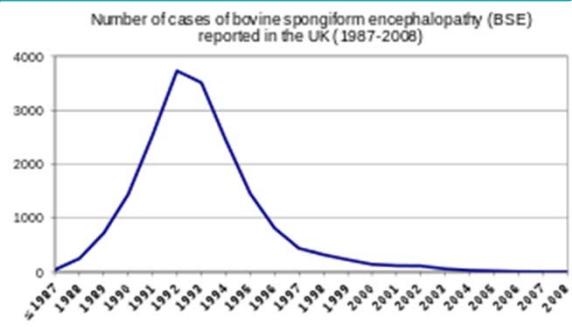
Mad Cow Disease - 1986 single cow in Sussex (southern UK)

1987 MAFF confirmed new disease

Transmissible Spongiform Encephalopathy (TSE), fatal neurodegenerative disease in cattle

Causative agent prion (folded protein)

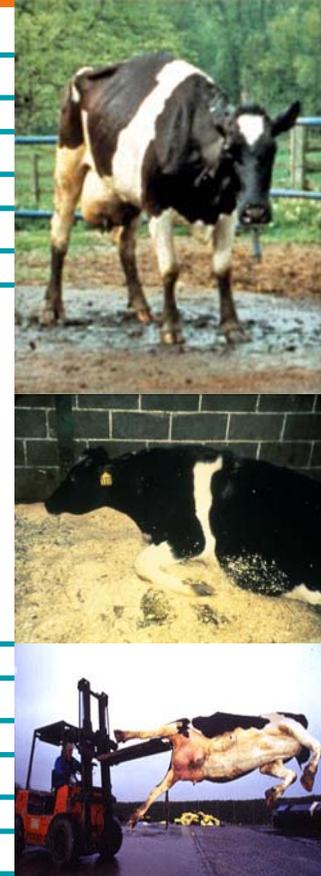
- 180,000 cattle infected in UK
- 4.4M cattle slaughtered in UK



1995 First human death from (new) variant Creutzfeldt-Jacob disease

By June 2014 177 people had died in UK, 52 elsewhere primarily in western Europe

March 1996 EU introduced 10 year ban on British beef (ended May 2006)



DIOXIN CONTAMINATED ANIMAL FEED



July 1997 FDA (USA) found contaminated mined clay product ('ball clay') used as anticaking agent in soybean meal, and other feed components in animal feeds



Spring 1999 in Belgium deaths of newborn chickens, residues in eggs, tissues and feed. Contamination traced to oil-and-fat recycling company and animal feed that contained industrial transformer oil (PCBs).



7M chickens and 50,000 pigs slaughtered, estimated cost 625M euros

EU FOOD SAFETY SYSTEM AND POLICY – FIT FOR PURPOSE?

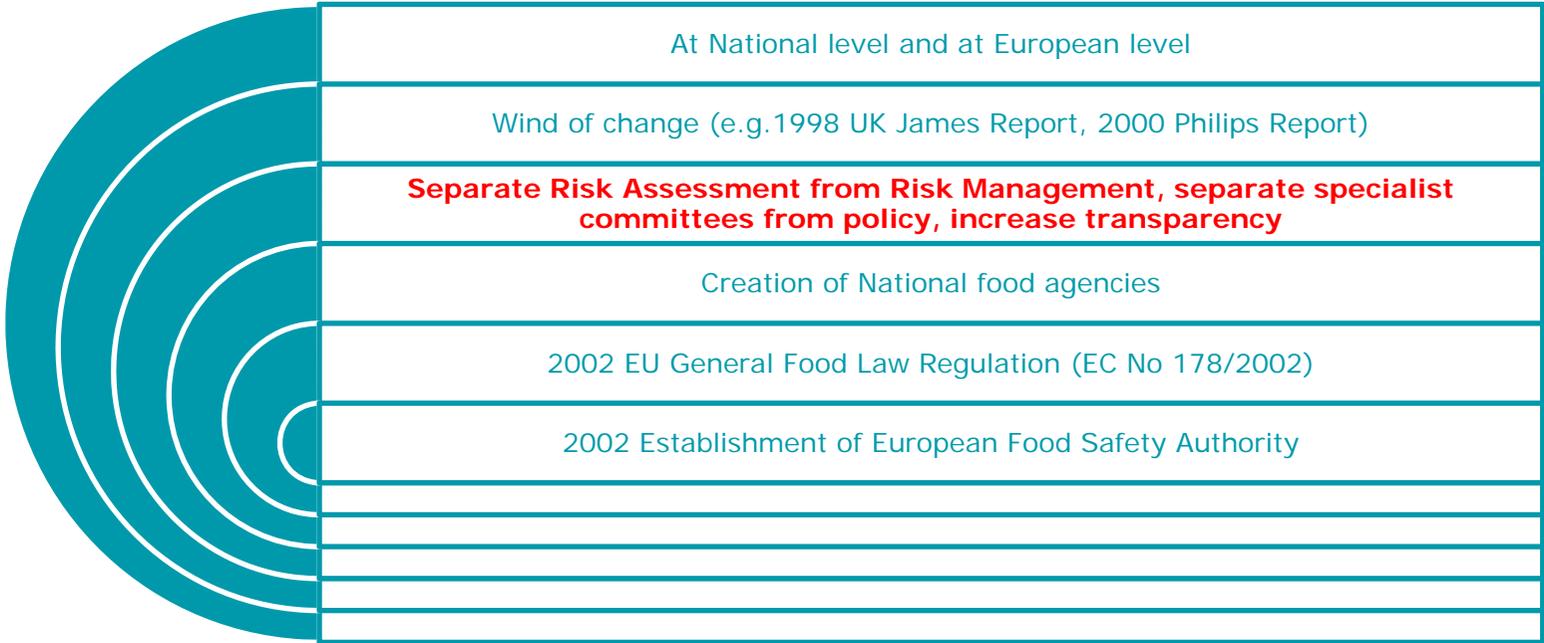
Food scares (e.g. BSE, dioxins)

Loss of consumer trust in food safety

Loss of confidence in EU food trade

Damaged trust in public authorities

RE-CASTING OF EU FOOD SAFETY SYSTEM AND POLICY



A NEW DAWN IN FOOD SAFETY?

EC No 178/2002 laying down the general principles and requirements of food law

Establishing EFSA as an independent source of scientific advice and communication



BEFORE1997-2003



DG SANCO Scientific Committees

- Food
- Plants
- Animal Health & Animal Welfare
- Animal Nutrition
- Veterinary Measures relating to Public Health
- 3 Non-food Committees
- Scientific Steering Committee



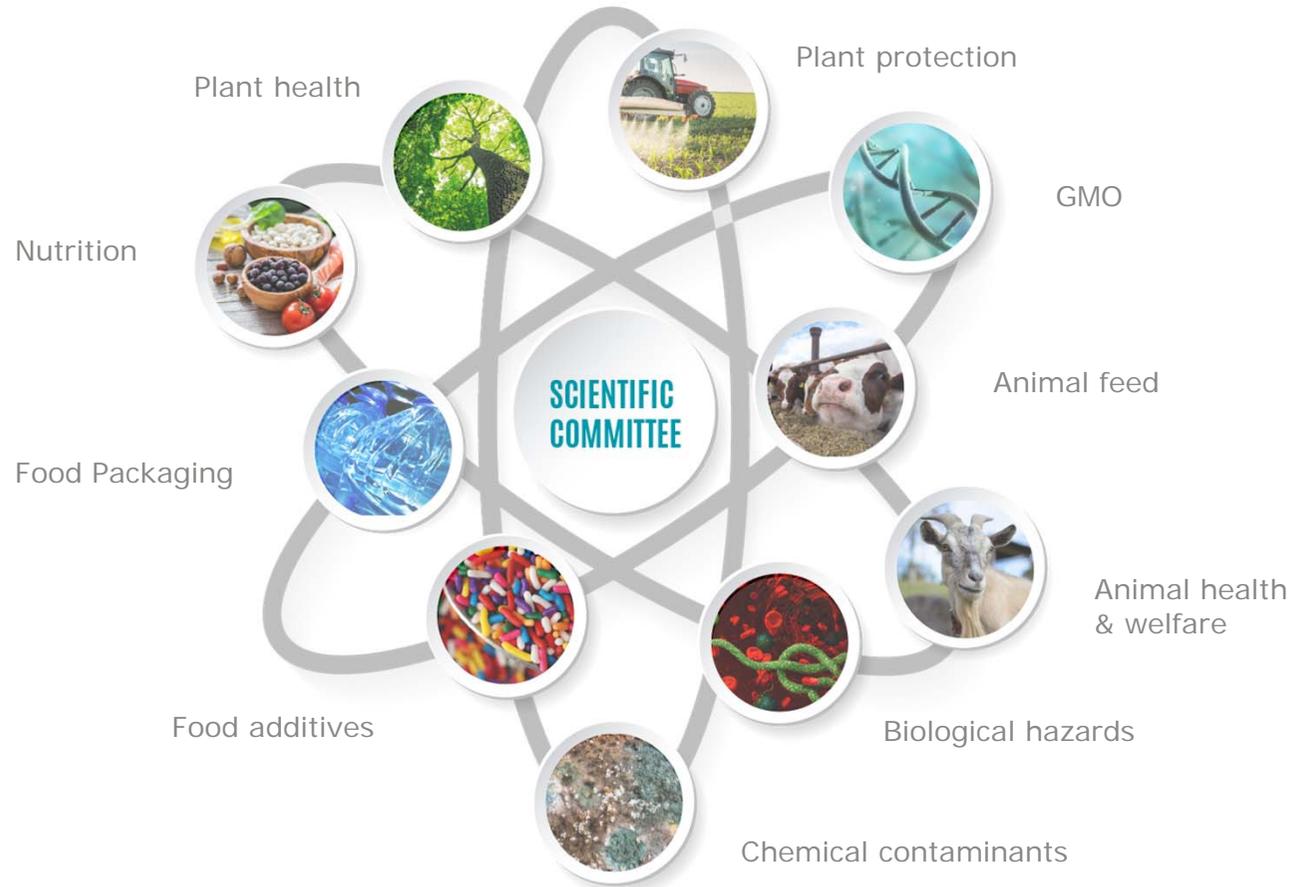
EFSA'S REMIT

General Food Law (Reg 178/2002)

- Funded by EU to operate independently of EU legislative and executive institutions (Commission, Council, Parliament) and EU MS
- Responsible for Risk Assessment and communication of scientific findings to the public
- Action to identify and characterise emerging risks in the fields within its mission



EFSATHE SCIENTIFIC PANELS



NATIONAL FOOD AGENCIES

- UK Food Standards Agency (FSA) founded 1998
- French Food Safety Agency (AFSSA) founded 1999, now French Agency for Food, Environmental and Occupational Health and Safety (ANSES) created in 2010
- Federal Agency for the Safety of the Food Chain (FASFC) in Belgium, founded 2000
- Spanish Food Safety Authority (AESAN) founded 2001, now Spanish Agency for Consumer Affairs, Food Safety and Nutrition (AECOSAN) created in 2007
- German Federal Institute for Risk Assessment (BfR) founded 2002



- Austrian Agency for Health and Food Safety Ltd (AGES) founded 2002
- Netherlands Food and Consumer Product Safety Authority (NVWA) created 2012 (national legislation 2004)

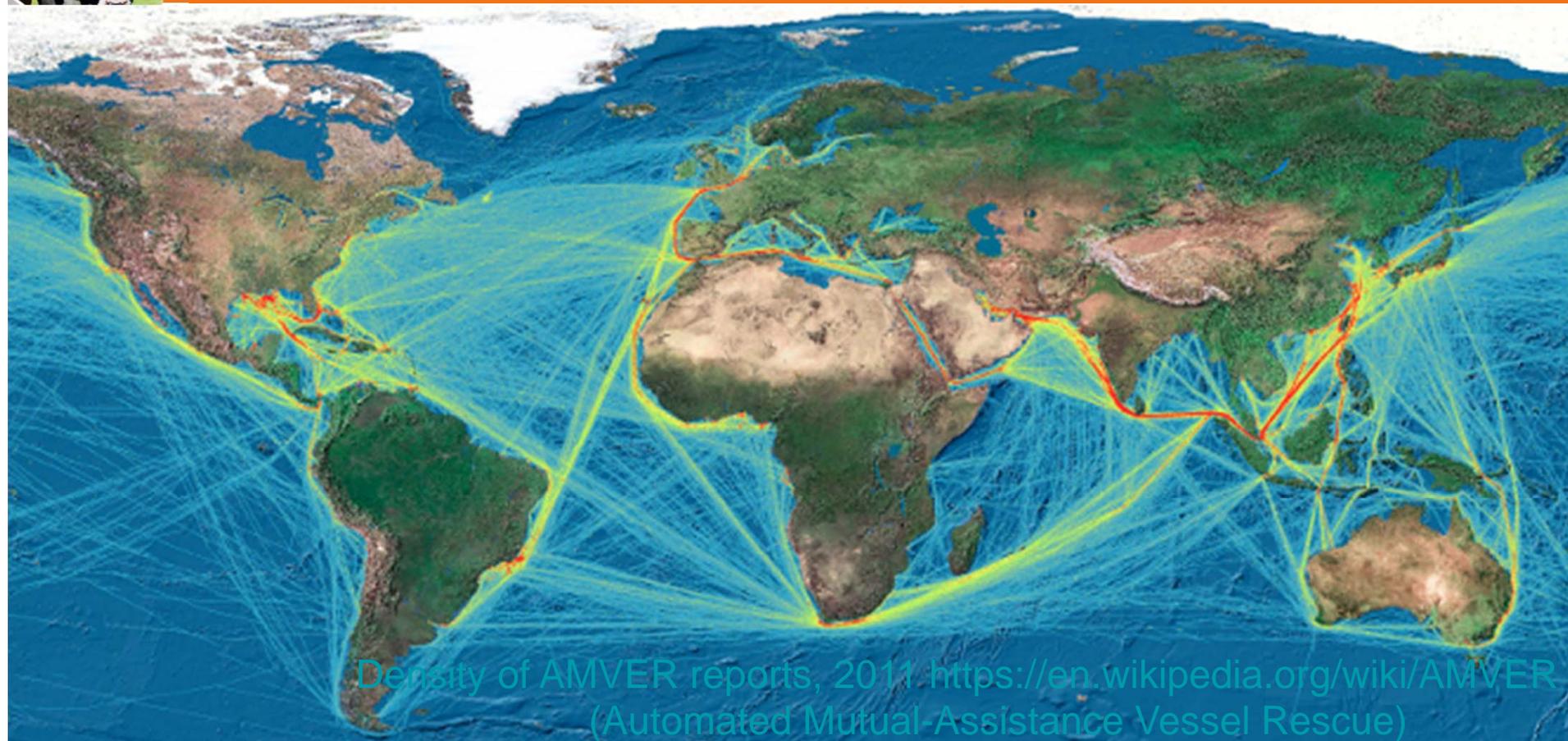


DRIVERS FOR CHANGING RISKS IN THE FOOD CHAIN





IMPORTANCE OF TRADE AND PLANT MOVEMENT



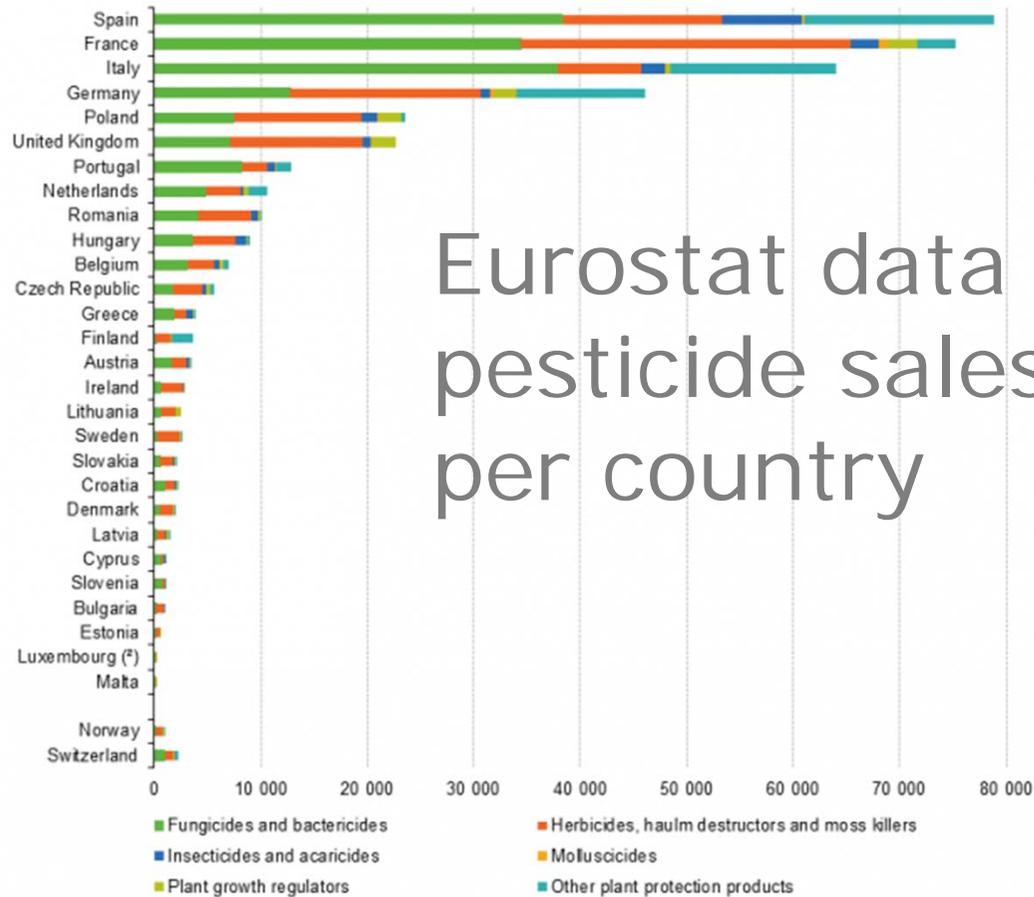
GLOBAL GROWING SEASON



Almeria, southern Spain



The local context matters



PESTICIDE APPLICATION TECHNOLOGY



IMPROVED DETECTION

Technology of detection systems

- Increased sensitivity

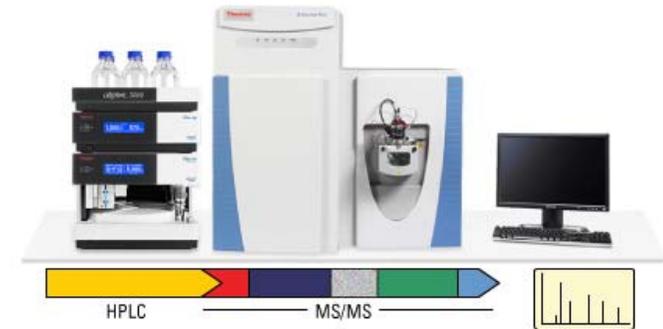
Traceability

Monitoring

- Rapid reporting
- Rapid spread through the food chain

Chemical and biological agents

- Tracking of farm animals



SUDAN RED (SUDAN 1)

- 2002 contaminated chili powder was imported from India
- 2003 EC regulation, BfR advice
- 2005 UK 400 products recalled



EVIDENCE AND USE OF DATA

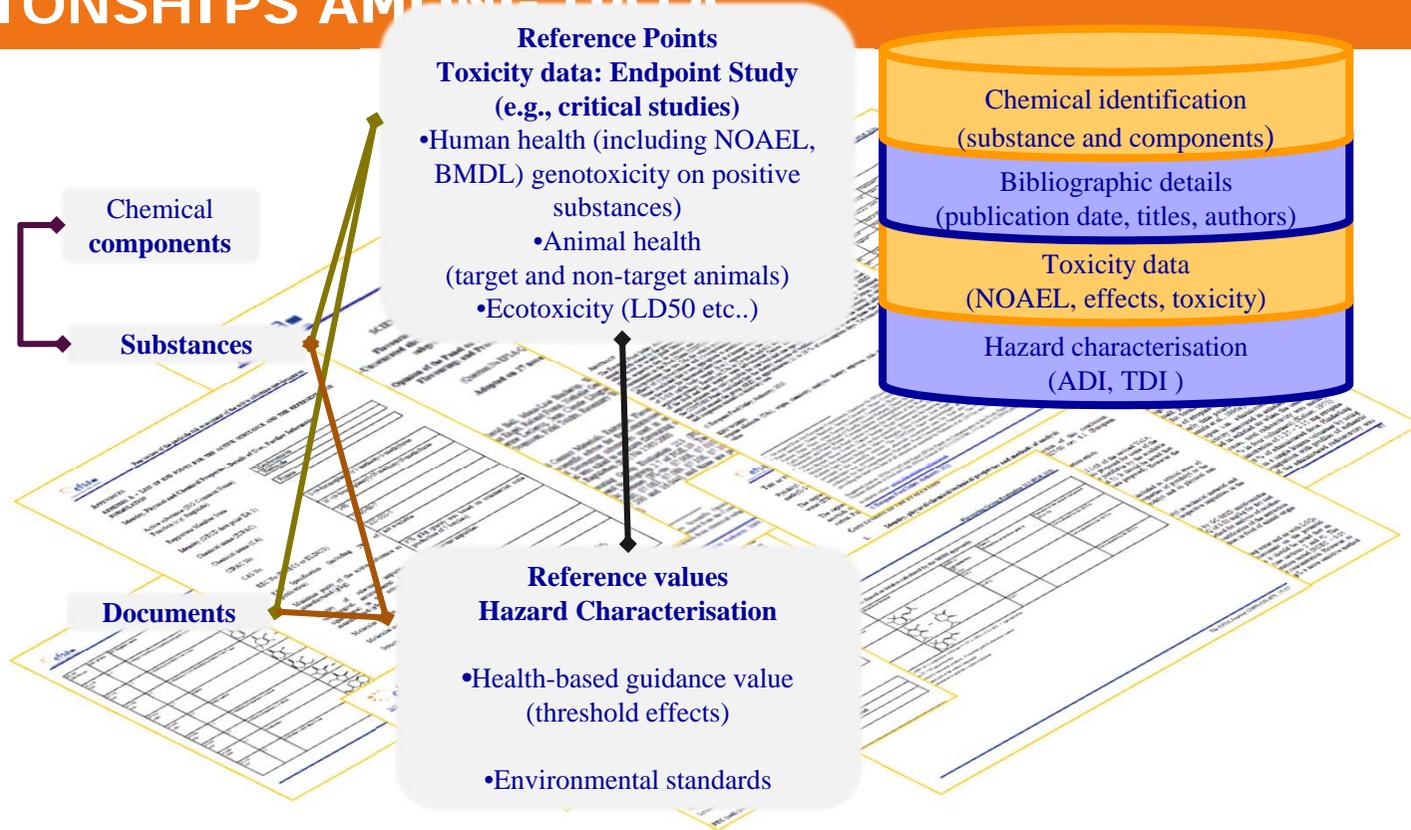
Transparency

Sources of data

- *In silico*, modelling, prediction, read across
- Testing strategies
 - *In vitro* technology (cell lines)
 - *In vivo* RRR (refinement, reduction, replacement)
- Bias reduction, systematic reviews

Shared and expanded databases

RELATIONSHIPS AMONG DATA



TH1

MATRIX project, electronic submission, format harmonisation

Tony Hardy; 25.11.2017

RISK ASSESSMENT METHODOLOGY

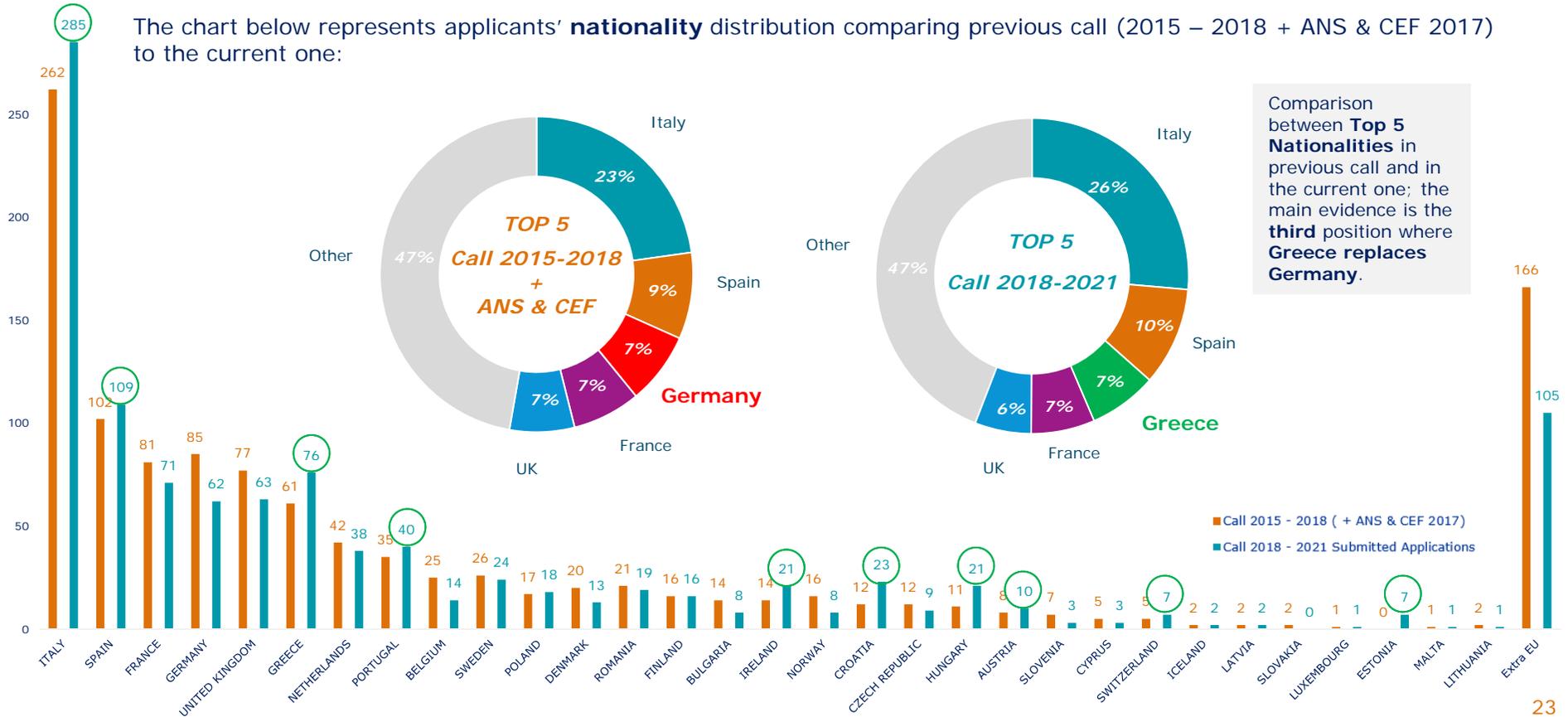


MEMBER STATE COLLABORATION



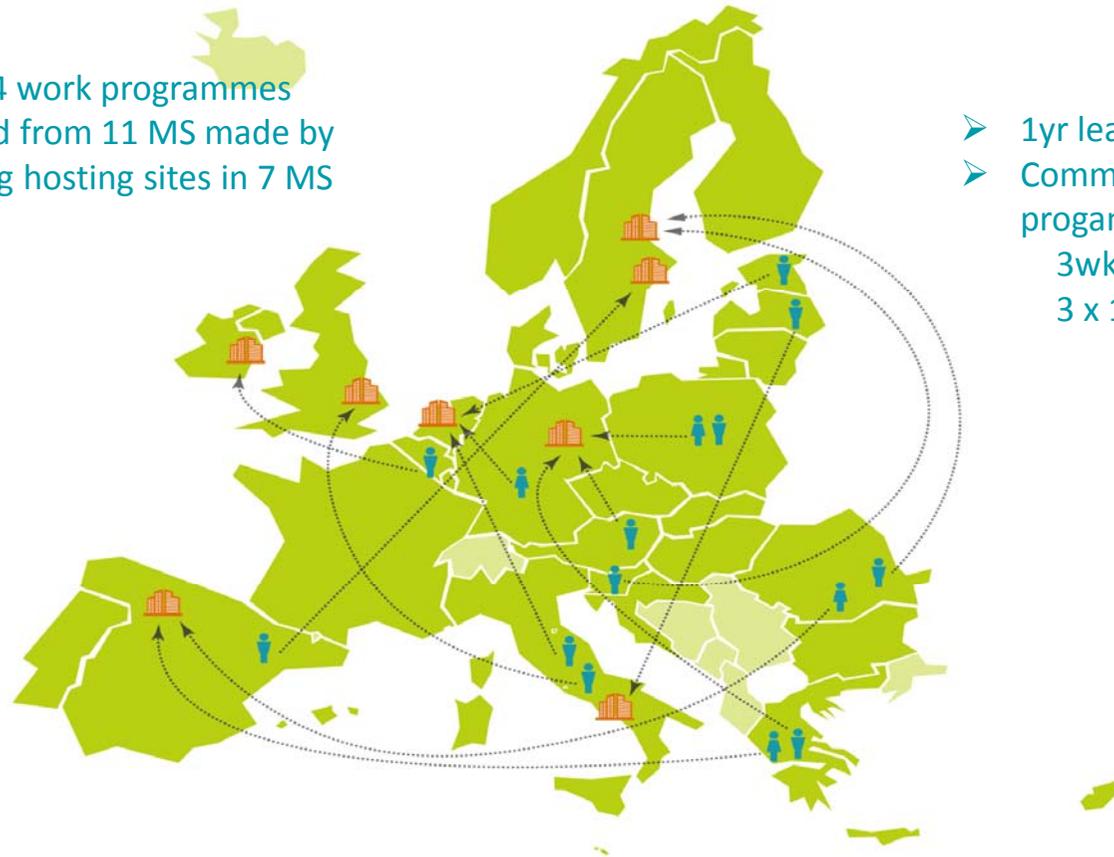
Applicants' Nationality distribution

The chart below represents applicants' **nationality** distribution comparing previous call (2015 – 2018 + ANS & CEF 2017) to the current one:



1ST EU-FORA FELLOW COHORT 2017 - 2018

- 84 applications, 34 work programmes
- 15 fellows selected from 11 MS made by the highest ranking hosting sites in 7 MS



- 1yr learning placement
- Common RA training programme
 - 3wk introduction at EFSA
 - 3 x 1wk training modules

CHALLENGES FOR THE FUTURE (1)



Data

- Interpretation
- Methodology
- Exploitation
- Big data
- Artificial intelligence (machine learning)



Collaboration

- How can we build the capacity for the next generation of risk assessors?
- How can we be prepared for the unknown?
- How can we be agile enough to deal with the challenges?

CHALLENGES FOR THE FUTURE (2)



Global harmonisation of risk assessment



Global approach to food safety in an increasingly complex environment characterised by

- New risks, complexity of the food chain
- Declining societal trust
- Shrinking public budgets



GRAZIE MILLE



UNCERTAINTY
IS AN
UNCOMFORTABLE
POSITION. BUT
CERTAINTY IS AN
ABSURD ONE

VOLTAIRE

TheSilverPen.com