Current activities in the area of emerging risks

67th Advisory Forum meeting,
Utrecht, The Netherlands,
6 February 2018

efsa
European Food Safety Authority

Outline

Emerging Risk identification process in EFSA

Updates on ER projects

Identified issues
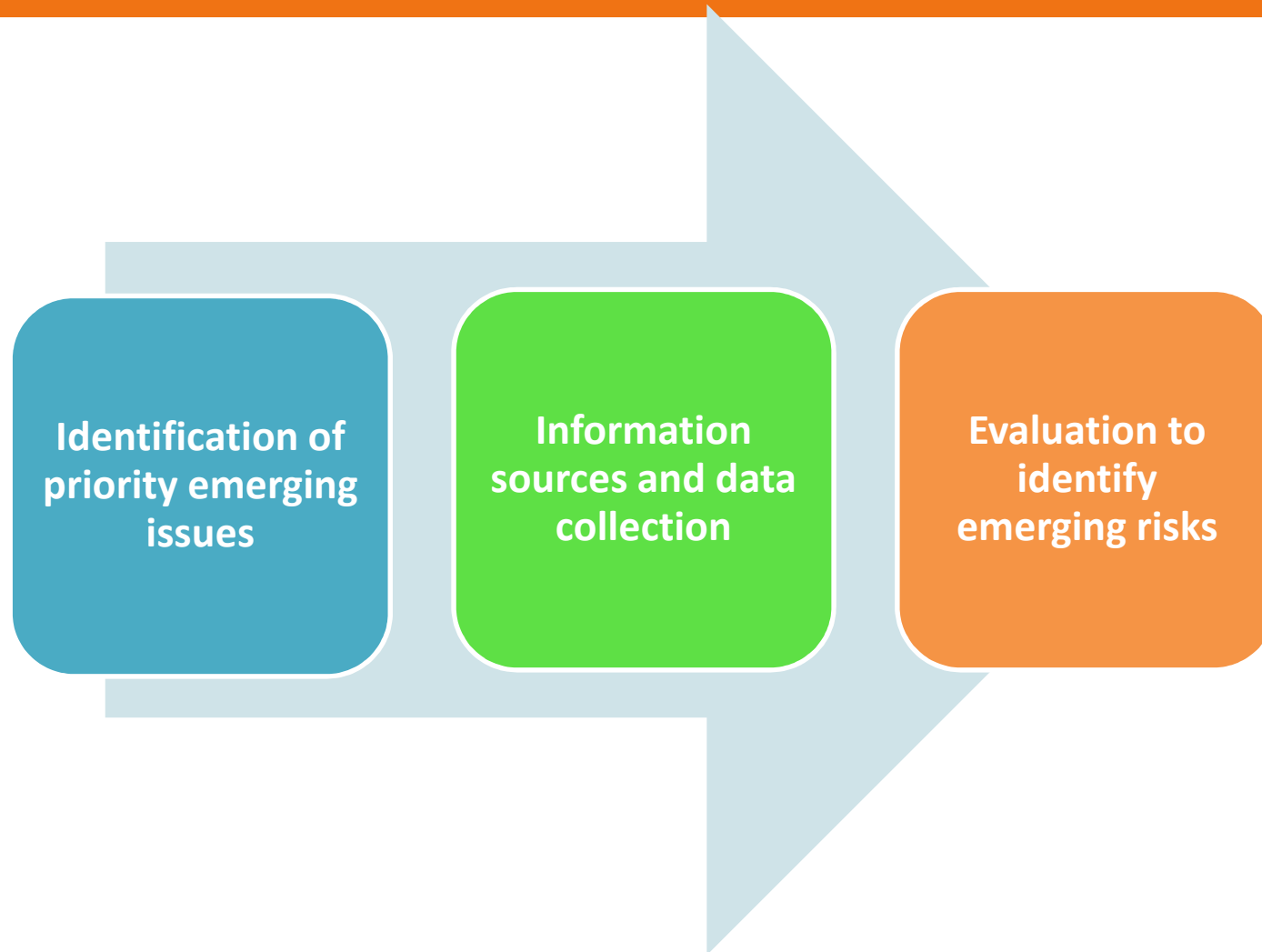
	Collecting and collating	Analyse and filter	Sharing
Develop	√	√	√
Implement	√	√	√
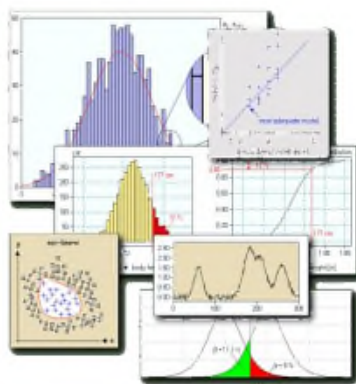
EMERGING RISKS PROCESS

Identification of priority emerging issues

Information sources and data collection

Evaluation to identify emerging risks

Networks of Knowledge

Emerging Risks Exchange Network (EREN) Member states

Stakeholder Consultative Group on Emerging Risk (StaCG-ER) - Civil society & Private sector

Identification of priority emerging issues

■ Networks of knowledge

- Standing working Group on emerging risks

SCIENTIFIC COMMITTEE

■ Networks of knowledge

Identification of priority emerging issues

World Health Organization

Food and Agriculture Organization of the United Nations

CODEX Alimentarius

CLEFSA
CLimatE change and Food SAfety

IMFSLG
International microbiological food safety liaison group

ICFSLG
International chemical food safety

liaison group

Identification of priority emerging issues
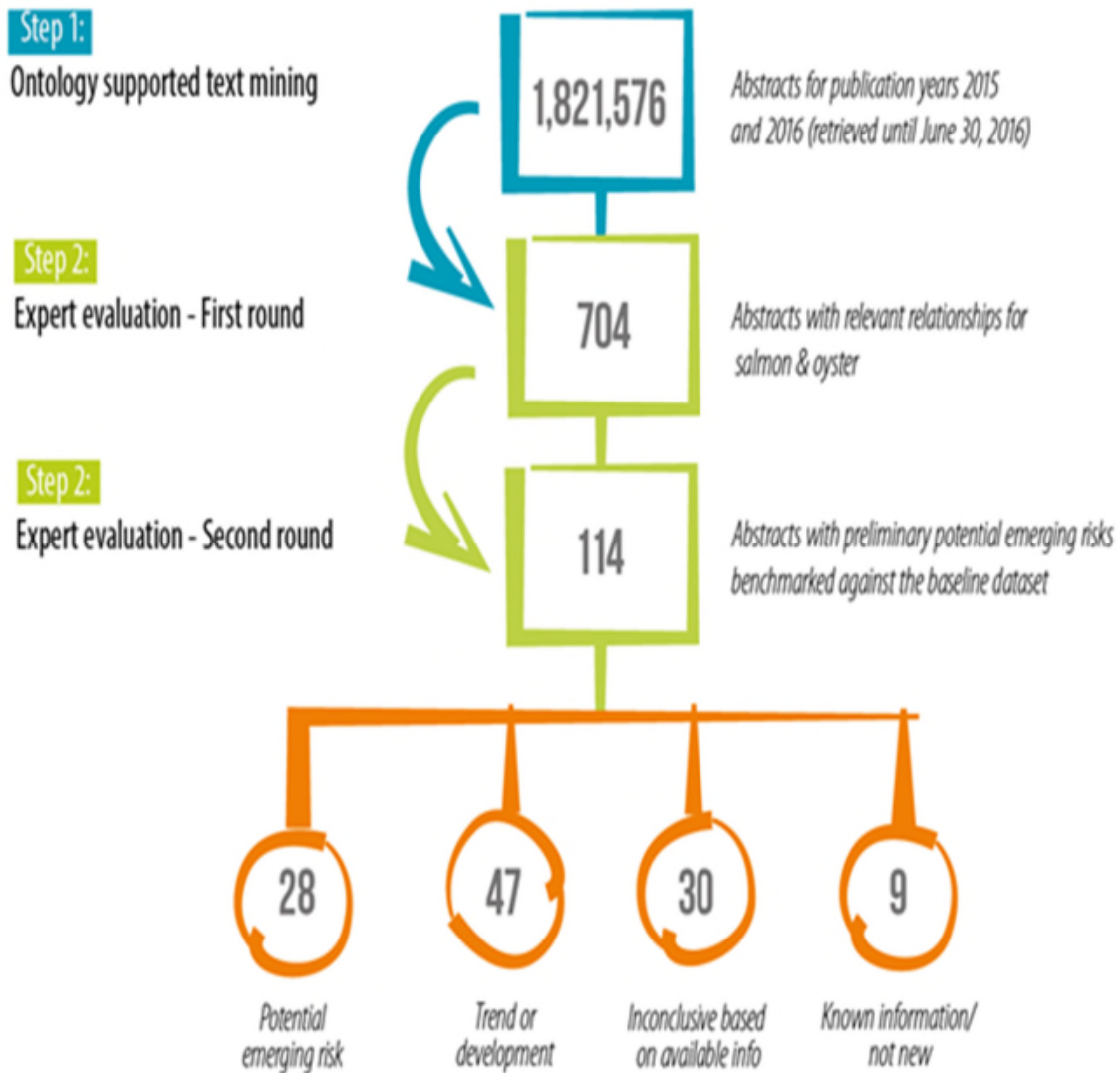
■ Networks of knowledge

Identification of priority emerging issues

■ Automated issues identification

- Text mining of media-Media monitoring (MedISys)
- Text mining of scientific literature(TNO-ERIS)
- Identification of chemical risks -Data mining (REACH database)

ERIS – TEXT MINING

Identification of priority emerging issues

Step 1:
Ontology supported text mining

1,821,576 — Abstracts for publication years 2015 and 2016 (retrieved until June 30, 2016)

Step 2:
Expert evaluation - First round

704 — Abstracts with relevant relationships for salmon & oyster

Step 2:
Expert evaluation - Second round

114 — Abstracts with preliminary potential emerging risks benchmarked against the baseline dataset

28 — Potential emerging risk

47 — Trend or development

30 — Inconclusive based on available info

9 — Known information/ not new

Identification of priority emerging issues

■ Automated issues identification

- Analysis of RASFF notifications
- Analysis of import data, commodity price trends
- General Morphological Analysis: Drivers for emerging biological risks, Ebola virus spillover
- Whole food Chain Analysis – AQUARIUS

AQUARIUS: Salmon Food Chain

Food chain

Vulnerabilities

Drivers

**Data sources
(to monitor drivers)**

**EMERGING
RISK?**

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Information sources and data collection

■ **Data collection**

- Omics Technologies
- Human biomonitoring
- Cyanotoxins
- Non-monotonic dose response
- Consumption surveys (energy drinks)
- Ciguatera
- Climate Change and food safety

GP/EFSA/AFSCO/2015/03

EuroCigua

Evaluation to identify emerging risks

■ Criteria

  ▪ Novelty
  ▪ Severity
  ▪ Scale
  ▪ Imminence
  ▪ Soundness

NEW HAZARD

SIGNIFICANT EXPOSURE

KNOWN HAZARD

NEW EXPOSURE

INCREASED

EMERGING RISK

Evaluation to identify emerging risks

UNCERTAINTY

RISK PERCEPTION

Communication

fear to create unnecessary worries and/or panic

need to inform the public
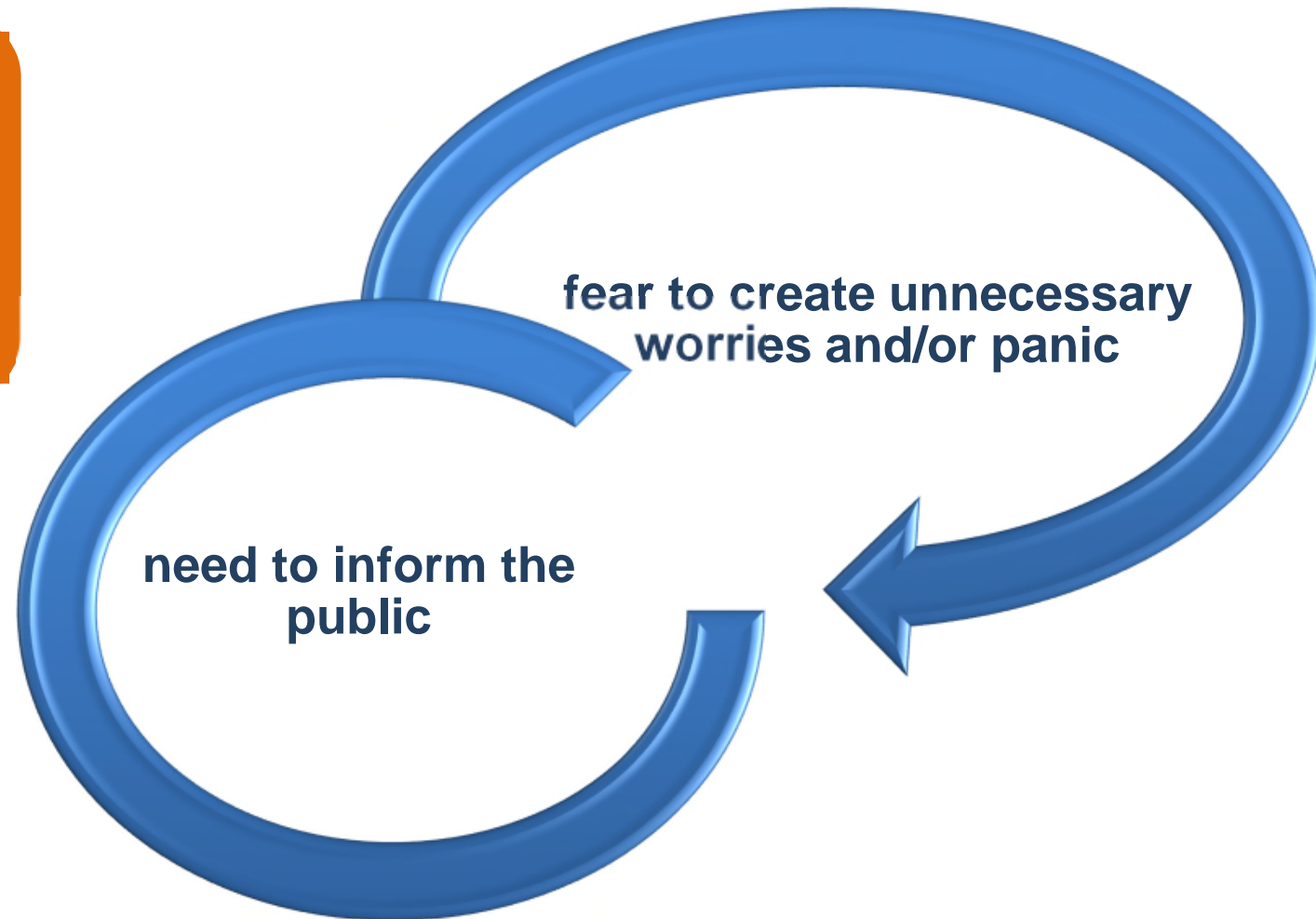
IDENTIFICATION OF EMERGING RISKS

	Deadline
Aquarius – Global chain analysis of selected species from saltwater aquaculture: identification and monitoring of vulnerabilities and drivers of change for the identification of emerging risks (NL)	2018
ERIS – Emerging Risks Identification System (Testing a text mining tool for emerging risk identification) (NL)	2018
CROWDSOURCING: Engaging communities effectively in food and feed risk assessment (UK)	2018
Machine learning (MLT) for Systematic literature Reviews in EFSA (EFSA)	2018

IDENTIFICATION OF EMERGING RISKS

|	Deadline
EUROCIGUA - Ciguatera Food Poisoning in Europa (ES +)	2019
REACH 2 (Applying a tested procedure for the identification of potential emerging chemical risks in the food) (DE)	2019
Medisys - Horizon scanning - media monitoring for listed and unknown plant pests (JRC)	2019
CLEFSA – Climate change as a driver of emerging risks for food safety (EFSA + networks)	2019
DEMETER – DEtermination and METrics of Emerging Risks (NL, UK, DE, HU)	2020

ELECTRONIC WASTE

NATURAL OCCURRENCE OF BISPHENOL F IN MUSTARD
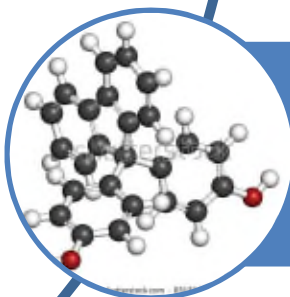
PLASTIC RICE – FAKE NEWS !

RECENTLY PUBLISHED

- **EFSA's Activities on Emerging Risks in 2016**
- **Emerging Risks Exchange Network (EREN)**
- **Stakeholder Discussion Group on Emerging Risks**

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European Food Safety Authority

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Emerging risks

The successful identification of emerging risks is at the heart of protecting public health and the environment. By identifying emerging risks in the food chain early, EFSA supports risk managers in anticipating risks and taking effective and timely prevention measures to protect consumers. Identifying emerging risks also helps to improve EFSA's ability to meet future risk assessment challenges.
EFSA defines an emerging risk as: "A risk resulting from a newly identified hazard to which a significant exposure may occur, or from an unexpected new or increased significant exposure and/or susceptibility to a known hazard."

| Networks | Activity reports | Methodologies | **Completed work** |

Emerging risks: nominations open for stakeholder group
19 January 2018

Disco
EFSA

Subject area

⊛ Cross-cuttin

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Emerging risks: no
stakeholder group

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