



**Evidence- and science-
based management in the
Belgian food chain:
*The role of the Scientific
Committee established at the
FASFC***

Axel Mauroy AESAN Madrid 2026

SciCom

.be



George Santayana, The Life of Reason, Volume 1, 1905



1 The Federal Agency for the Safety of the Food Chain (AFSCA-FAVV-FASFC) as Food safety authority in Belgium

From risk perception to risk management, via risk assessment (including risk communication!)



Mission

Our mission is to ensure that all actors in the food chain can provide the consumers and each other with the greatest possible assurance that the food, animals, plants and products they consume, keep or use are reliable, safe and protected, now and in the future.



2

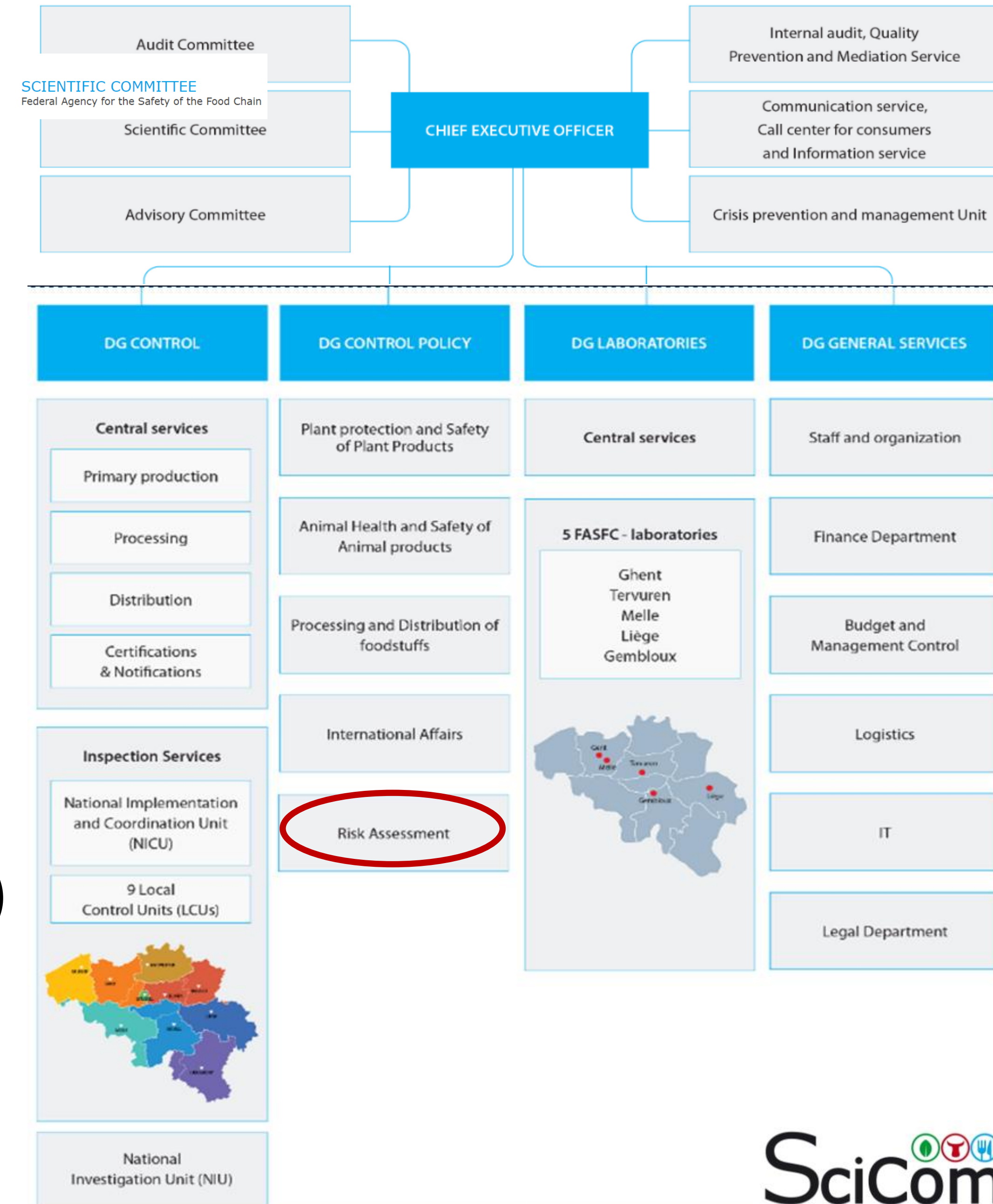
The Scientific Committee established at the FASFC



LEGAL FRAMEWORK AND WORKING DOCUMENTS

- ✓ Consultative body established at the FASFC
- ✓ Legal framework :
 - Law for the establishment of the FASFC
 - Royal decree on the composition and operation of the SciCom
 - Royal decree for nomination of the members
 - Minister decree for fees
- ✓ ROI + Deontological code
- ✓ Documented procedures for opinion request
- ✓ 22 members, 4-years mandates, regulated and documented selection procedure (peer assessment)
- ✓ Strict and documented management of declaration of interest (independence & impartiality of RA's)

Organisation chart



TASKS & SUPPORT

- ✓ To provide **independent** scientific opinions on **risk assessment** and **options for risk management** in the matters related to the FASFC competencies :
 - (emerging) Risks (food, feed, animal and plant health) all draft laws and royal decrees in relation to risk assessment and risk management in the food chain, animal health and plant protection
 - Control program of the FASFC
 - Self-checking guides
 - + Self tasking opinions
- ✓ Both administratively, technically and scientifically supported by the **staff Direction for risk assessment at the FASFC (DirRisk)**



Staff DirRisk



A. Mauroy
> Animal health and animal products, feed, Director DirRisk (S5)



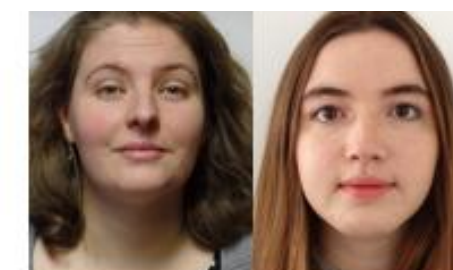
P. Depoorter & V. Van Leeuw
> Animal health and animal products, feed



K. Houben & O. Rojo Poveda
> Chemical & physical risks, allergens, novels foods



& L. Bouhyaoui & W. Verschueren
> Administrative staff



K. Feys & E. Macdougald
> Microbiological risks , GMO's



O. Wilmart
> Plant health and products, bees, water

OPINIONS: ANY EXAMPLES TO GUIDE RISKS MANAGERS AND DECISION-MAKERS

✓ Opinions on risks in the food chain and on the control program of the FASFC, on royal decrees concerning the food chain, animal & plant health, in collaboration with the Superior Health Council (Human health)

» [Opinion 01-2022 \(PDF\)](#)

The evaluation of the FASFC analysis programme: Mycotoxins in food and feed (dossier SciCom 2016/13 A)

Various

» [Opinion 09-2022 \(PDF\)](#)

The chronic exposure of the Belgian population to residues of plant protection products through fruit and vegetable consumption (period 2014-2020) (dossier SciCom 2019/05)

Food

» [Opinion 02-2023 \(PDF\)](#)

The impact of Private Assurance Schemes (PAS) on inspection results in the transformation sector and in slaughterhouses (dossier SciCom 2022/11)

Various

» [Opinion 07-2023 \(PDF\)](#)

Royal decree establishing the conditions related to the quarantine and isolation of terrestrial animals - Part 2: amendment to add several diseases to Annex 1 (dossier SciCom 2022/01)

Animal

» [Opinion 17-2022 \(PDF\)](#)

Advantages and disadvantages of eating fish and seafood
Part 1 : Mercury and methylmercury in fish (dossier SciCom 2019/26; dossier SHC 9343)

Food

OPINIONS: ANY EXAMPLES TO GUIDE RISKS MANAGERS AND DECISION-MAKERS

✓ Urgent opinions during crisis or incidents:

» [Rapid opinion 02-2020](#)
(PDF)

The sampling and analysis plans of food and feed around a site of a scrap processing plant located in Courcelles (dossier SciCom 2020/02)

Food

» [Rapid opinion 03-2021](#)
(PDF)

A renewed risk assessment of SARS-CoV-2 infection associated to mink holdings (dossier SciCom 2020/20)

Animal

» [Rapid opinion 10-2021](#)
(PDF)

Perfluoroalkyl substances (PFAS) in food of animal and vegetable origin (dossier SciCom 2021/13)

Food

✓ Self-tasking mandates

» [Advice 18-2021](#) (PDF)

- [Appendix 1: Detailed background](#) (PDF)

- [Appendix 2: Glossary](#) (PDF)

- [Appendix 3: Response public consultation](#) (PDF)

Whole genome sequencing for the detection of foodborne outbreaks and bacterial risk assessment (dossier SciCom 2020/08 - self-tasking mandate)

Food

3 Scientific



A closer look at how scientific outputs can support to prepare, manage, preserve and anticipate

COLLABORATING TO RESOLVE OR ANTICIPATE ANIMAL HEALTH CRISES

African Swine Fever introduction in Belgian wildlife (2018)



- [Rapid opinion 08-2014](#) – Anticipating on the risk of introduction of ASF from Eastern Europe
- ▼
- **14/09/2018 : official notification to WOAHA of a first case in the BE wildlife (wildboar)**
- ▼
- **2 formal opinions, 5 rapid opinions and 3 urgent opinions:** on introduction pathways in swine operations, biosecurity, vigilance, access to forests, animal by-products, forest work, wild boar depopulation, feed
- ▼
- **12/2020 : Belgium officially free of ASF (WOAHA)**

Risk of EHD introduction in Belgium (2024)

- [Opinion 07-2024](#) – Risk of EHD serotype 8 introduction in Belgium
- [Rapid opinion 10-2024](#) – Royal decree and conditions for urgency vaccination in Belgium against EHD serotype 8



GUIDING IN THE MANAGEMENT OF FOOD SAFETY RISKS FOLLOWING ENVIRONMENTAL CONTAMINATION AND EXTREME EVENTS

Cattle potentially contaminated with PFAS and meat seizure risks



- [Urgent opinion 10-2021](#) – perfluoroalkyl substances (PFAS) in food of animal and vegetable origin
- [Opinion 01-2025](#) – Correlation between the PFAS levels in bovine blood and the levels in the meat and offal of these animals → indicative value for PFAS compounds in bovine blood to estimate whether PFAS levels in meat, liver and kidney comply with the European maximum levels of Regulation (EU) 2023/915

Risks for the food chain after floodings

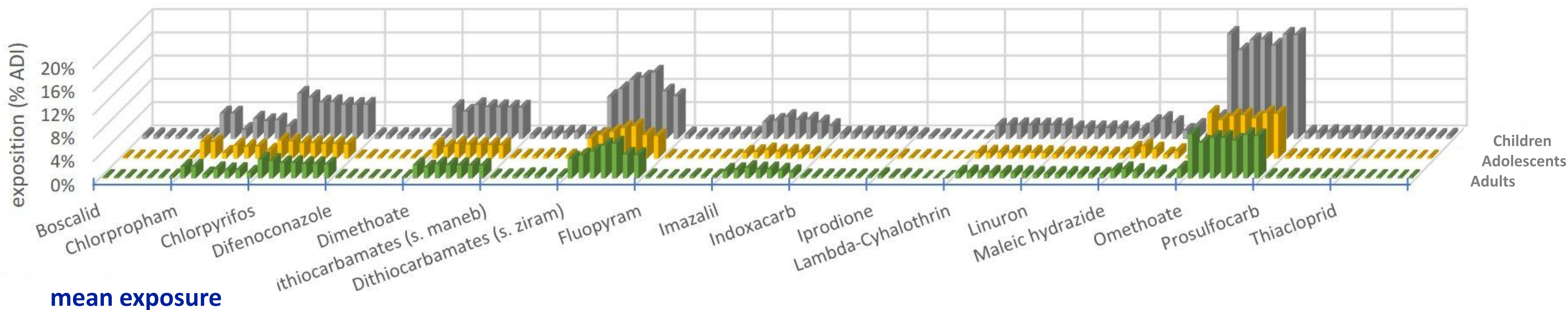
- [Opinion 25-2013](#) – Self-tasking mandate on the assessment of food safety risks related to flooding effects → list of potential hazards to consider, influencing factors, scenario's depending on the season and the circumstances ('case-by-case' management)



GUIDING IN THE MANAGEMENT OF FOOD SAFETY RISKS FOLLOWING THE USE OF PLANT PROTECTION PRODUCTS

Pesticide residues in food

- [Opinions 31-2007, 02-2010, 18-2015, 09-2022](#) – Regular re-assessment of the exposure of Belgian consumers to pesticide residues via food (vegetables & fruits)



mean exposure

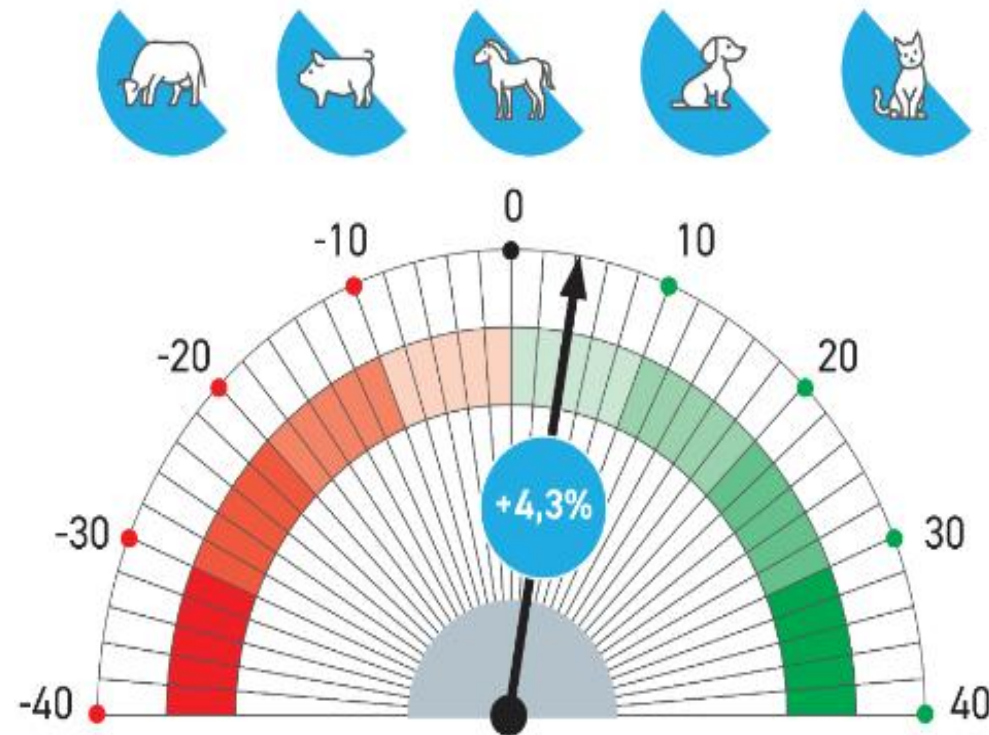
SCIENTIFIC SUPPORT TO PRESERVE PLANT HEALTH

Quarantine organisms

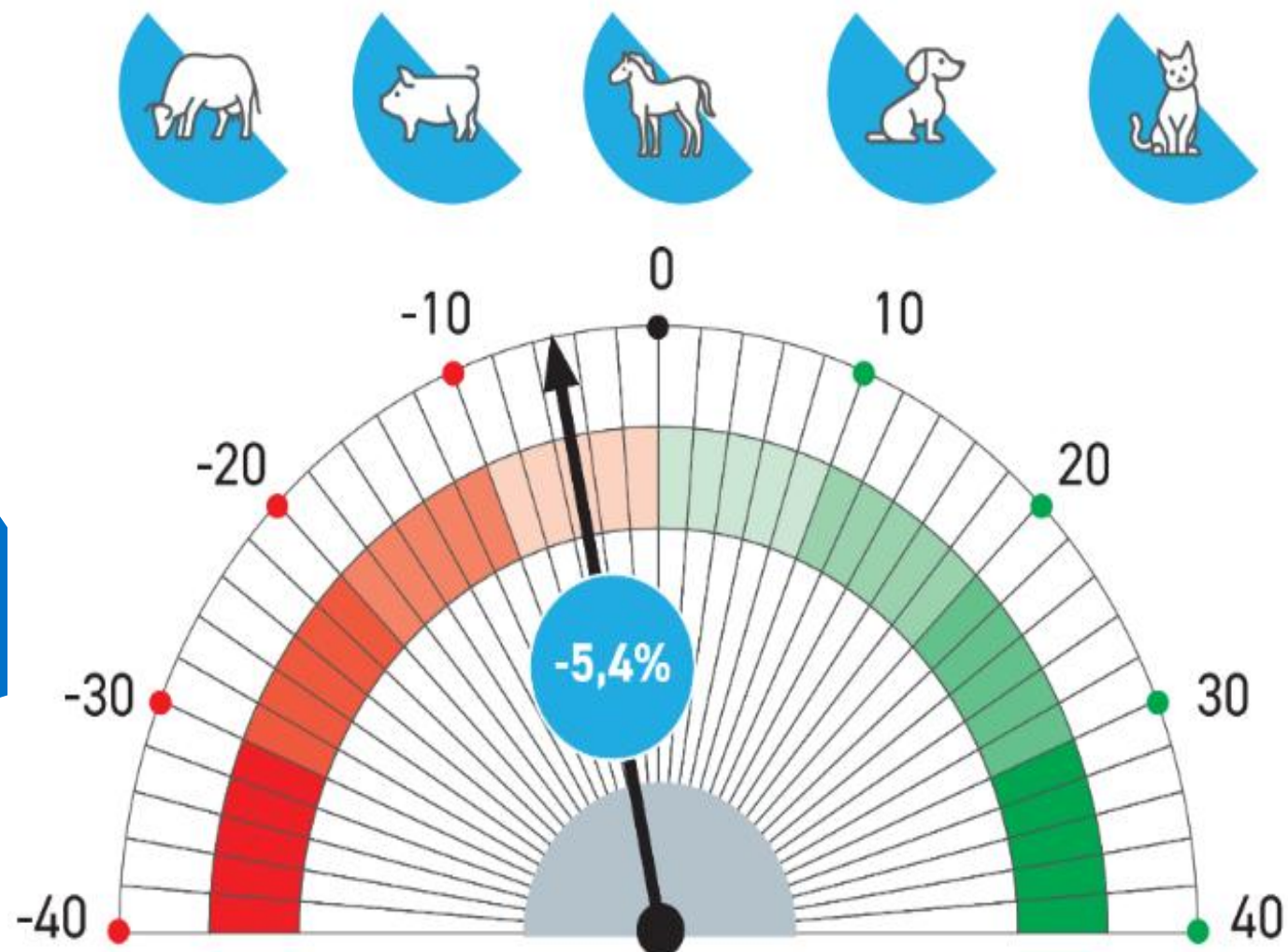


- [Opinion 10-2018](#) – Assessment of the control program of the FASFC for plant protection against quarantine organisms
- [Rapid opinion 03-2019](#) – Risk assessment relating to the presence of *Xylella fastidiosa* in Belgium on olive trees imported from Spain
- [Opinion 12-2020](#) – Royal decree on protection measures against quarantine organisms
- [Opinion 04-2025](#) – Multi-annual approach for programming analyses on plant health

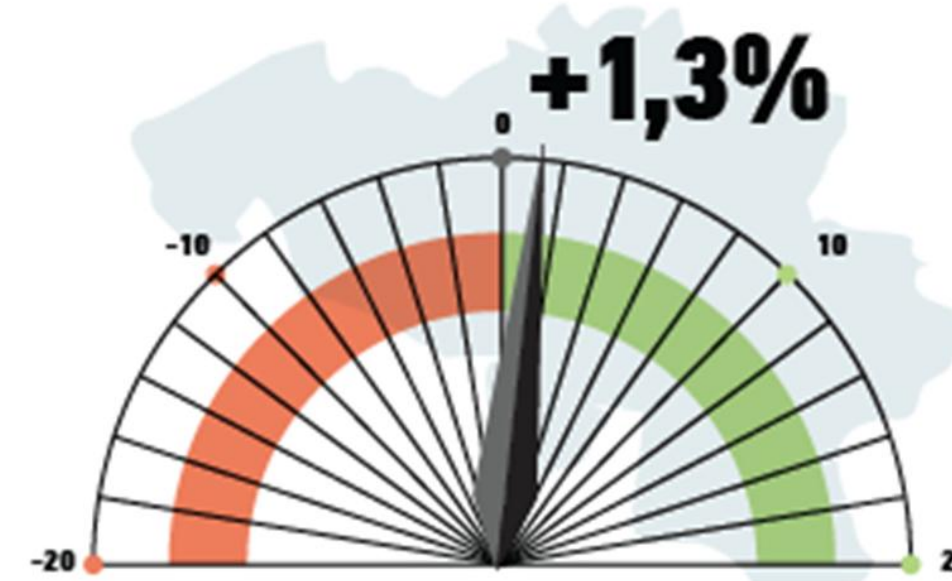
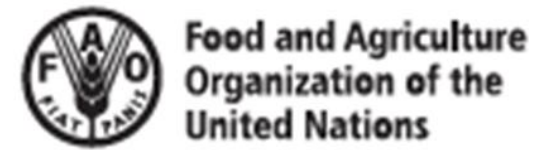
2023 versus 2022



Diergezondheidsbarometer
2023 versus referentiejaar 2010



Barometers



MEASURING THE STATE OF FOOD SAFETY IN BELGIUM WITH FOOD SAFETY BAROMETER

HIGHLIGHTS

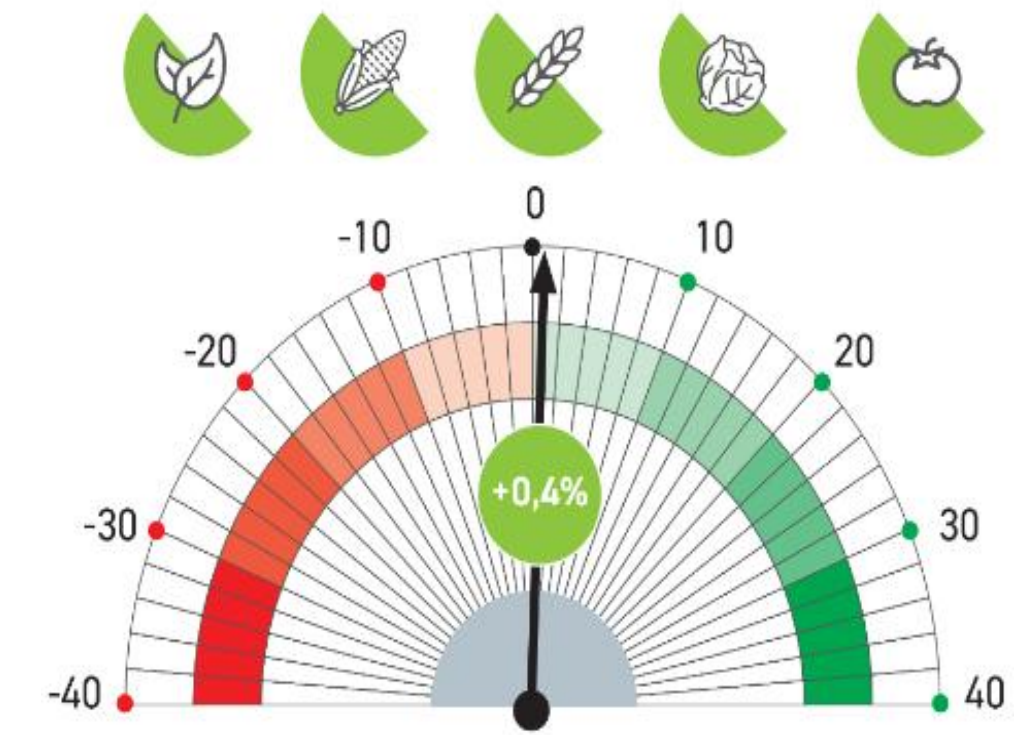
- Measuring the food safety level with quantifiable indicators has been of interest to public authorities, but the complexity of the food control and food safety systems make the task challenging.
- The Food Safety Barometer in Belgium is a science-based and widely recognized tool with 30 indicators that is used to measure progress, identify priorities for the public authorities and communicate issues to stakeholders.
- The Barometer was developed in collaboration with the Independent Scientific Committee established at the Belgian Federal Agency for the Safety of the Food Chain (FASFC) and several expert stakeholders.
- The process was grounded in the Pressure-State-Response concept: the current status of food safety (state), factors influencing the current status (pressure) and actions taken to maintain or improve food safety (response).
- The indicators were selected to describe the current status of food safety of the whole food chain from farm to fork, and set based on criteria including the availability of the data, measurability, reliability, independence, durability and unambiguousness.
- Measuring food safety benefits from indicators that are stable over time as it enables trend analyses; and a flexible system that allows adaptation to changes in food safety with new indicators.

Contributing Organization
Belgian Federal Agency for the Safety of the Food Chain (FASFC)

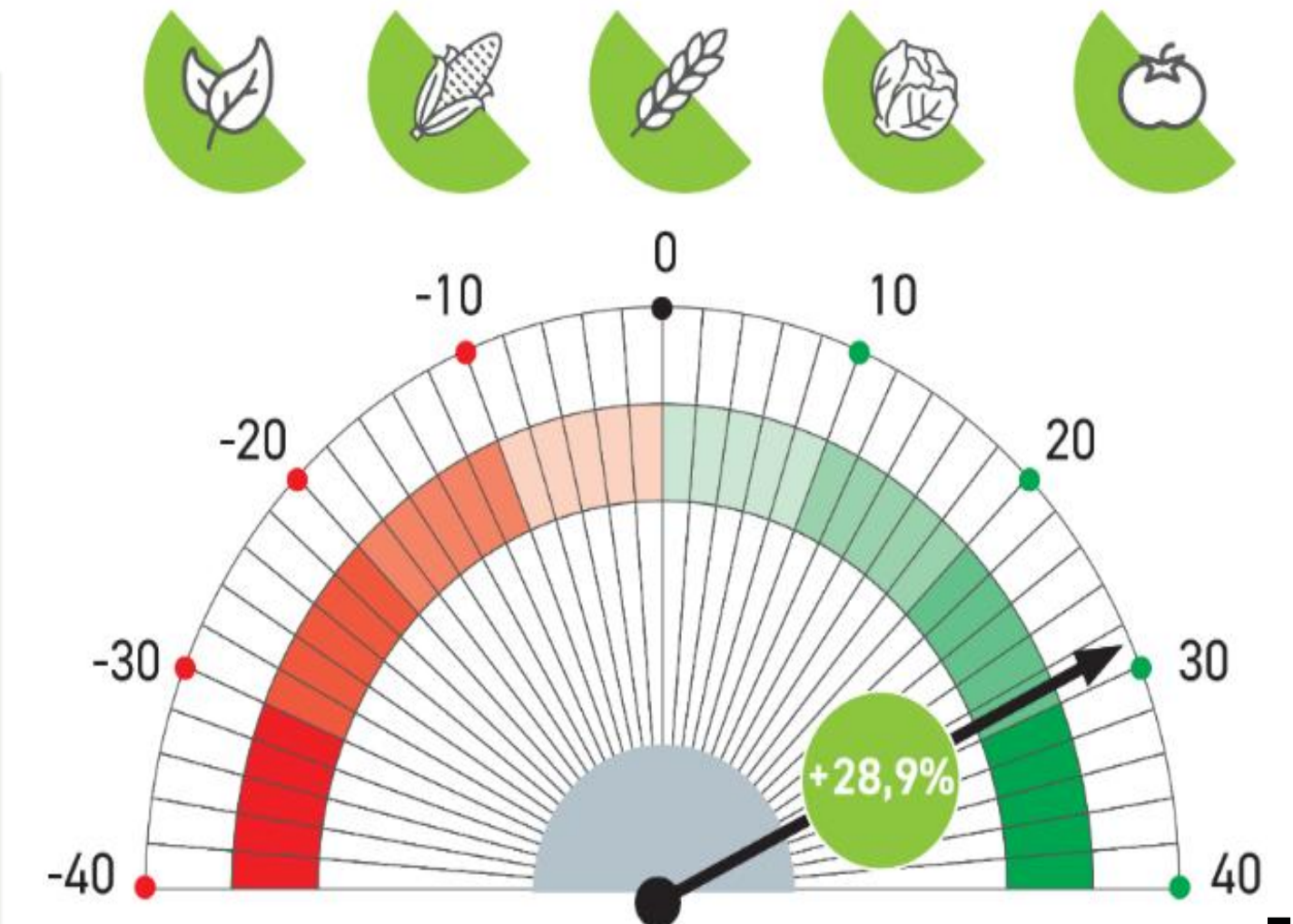
Geographical coverage
Belgium

Main food safety issue
Measuring the state of food safety in Belgium

Plantengezondheidsbarometer
2023 versus 2022



Plantengezondheidsbarometer
2023 versus referentiejaar 2010



Brochures



Rauwe melk verhitten vóór consumptie!

Scientific papers

Received: 22 November 2020 | Revised: 29 January 2021 | Accepted: 8 March 2021
DOI: 10.1111/tbed.14067

Check for updates

SPECIAL ISSUE ARTICLE

Semi-quantitative risk assessment by expert elicitation of potential introduction routes of African swine fever from wild reservoir to domestic pig industry and subsequent spread during the Belgian outbreak (2018–2019)

Axel Mauroy¹ | Pieter Depoorter¹ | Claude Saegerman^{2*} | Brigitte Cay³ | Nick De Regge³ | Maria-Eleni Filippitzi⁴ | Claude Fischer⁵ | Martine Laitat⁶ | Dominiek Maes⁷ | Kevin Morelle^{8,9} | Hans Nauwynck¹⁰ | Xavier Simons⁴ | Thierry van den Berg¹¹ | Xavier Van Huffel¹ | Etienne Thiry¹² | Jeroen Dewulf⁷

efsa EUROPEAN FOOD SAFETY AUTHORITY

FOOD RISK ASSESS EUROPE OPEN ACCESS

Emily Maccougald¹, Kim Feys¹, Axel Mauroy¹, Pascal Veys^{2,3} and Pieter Spanoghe^{2,4}

Food safety and security of plant products
Summary of the annual symposium of the Scientific Committee established at the Federal Agency for the Safety of the Food Chain (FASFC)

Samenvatting

Op vrijdag 8 december 2023 vond het jaarlijkse symposium van het Wetenschappelijk Comité ingesteld bij het FAVV voor de 18^e keer plaats. Het symposium stond in het teken van "Voedselveiligheid en voedselzekerheid van plantaardige producten". Meer dan 340 mensen schreven zich in om fysiek in Brussel ofwel online deel te nemen.

Het symposium was ingedeeld in 3 sessies. De eerste sessie was gewijd aan de belangrijkste uitdagingen voor planten en plantaardige producten, zoals klimaatverandering, nieuwe beleidsinitiatieven (Green Deal), globalisatie en de kosten van de plantaardige levensmiddelen. Tijdens de tweede sessie werd gekeken naar mogelijke aanpassingen naar aanleiding van deze uitdagingen, zoals alternatieven voor pesticiden, stedelijk landbouw ("urban farming") en precisielandbouw ("precision agriculture"). De derde sessie richtte zich op mogelijke opkomende risico's zoals plantenziekten en het verlies van biodiversiteit. Het symposium werd afgesloten met een rondetafelgesprek waarin stakeholders de aandachtspunten voor de overheid, de academische wereld, de industrie en de consumenten identificeerden.

Résumé

Organisé le vendredi 8 décembre 2023, le 18^{ème} symposium annuel du Comité Scientifique institué auprès de l'AFSCA a compté plus de 340 inscrits, participant soit en personne à Bruxelles soit en ligne, autour du thème « Sécurité alimentaire des produits végétaux et de leur approvisionnement ».

Le symposium était constitué de 3 sessions. La première session était dédiée aux grands défis impactant les végétaux et les produits végétaux, tels que le changement climatique, les nouvelles initiatives politiques (Green Deal), la mondialisation et les prix des produits végétaux que nous consommons. La deuxième session a abordé les adaptations possibles à ces défis, telles que les alternatives aux pesticides, l'agriculture urbaine ("urban farming") et l'agriculture de précision ("precision agriculture"). La troisième session était focalisée quant à elle sur les risques émergents potentiels tels que les maladies végétales et la perte de biodiversité. Le symposium a été clôturé par une table ronde permettant aux stakeholders d'identifier les points d'intérêt pour les autorités, le monde académique, l'industrie et les consommateurs.

fety of the Food Chain, Bruxelles, Belgium
ary Sciences (UREAR-ULiège), Fundamental and Applied



Susceptibility of Mammals to Highly Pathogenic Avian Influenza: A Qualitative Risk Assessment From the Belgian Perspective

Virginie Van Leeuw ✉, Pieter Depoorter, Axel Mauroy, Olivier Beck, Herman Claeys, Nick De Regge, Valérie De Waele, Paul De Winter, Jean-François Heymans, Jozef Hooyberghs, Philippe Houdart, Cyrelle Houtsaegeer, Annick Linden, Marcella Mori, Hans Nauwynck, Anna Parys, Javiera Rebolledo Romero, Chantal Rettigner, Lieze Rouffaer, Jorgen Stassijns, Mieke Steensels, Steven Van Gucht, Kristien Van Reeth, Katie Vermeersch, Muriel Vervaeke, Claude Saegerman, Jeroen Dewulf ... See fewer authors ^

First published: 29 November 2024 | <https://doi.org/10.1111/zph.13194>

ig pig holdings and subsequent dissemination

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¹ Staff direction for risk assessment, Directorate-General for Control Policy, Federal Agency for the Safety of the Food Chain
² Scientific Committee established at the Belgian Federal Agency for the Safety of the Food Chain
³ Walloon Agricultural Research Center - CIRA-W
⁴ Department of Plants and Crops, Faculty of Bio-Science engineering, Ghent university

Publications

Posters

The application of WGS for the detection of foodborne outbreaks and bacterial risk assessment - a Belgian scientific opinion
Feys K.¹, Herman L.^{2,3}

SciCom
¹ Federal Agency for the Safety of the Food Chain (FASFC) - Belgium; ² Institute for Agricultural and Fisheries Research (ILVO) - Belgium; ³ Scientific Committee established at the FASFC - Belgium
Corresponding author: kim.feys@fasfc.be

Scope of the opinion

- New opportunities linked to WGS (serotyping pathogens, genotypic characterization antimicrobial resistance genes, outbreak investigation, data exchange,...)
- Concerns regarding the implementation of Whole Genome Sequencing (WGS)
- Main focus: *Salmonella*, *Listeria monocytogenes* and Shiga Toxin-producing *E. coli* (STEC)
- Applied to the Belgian context

Recommendations

- Switch to WGS in the (near) future**
 - As older typing methods are fading out at the international level
 - Multiple usage WGS data (typing, AMR monitoring, outbreak investigation, retrospective analysis, ...)
 - A transition period is possible to invest in infrastructure, acquire technical expertise, set up a standardized and validated flow and gain experience
- Communication**
 - Be vigilant of the correct interpretation and communication on the responsibilities of the different actors in case of an outbreak
 - Zero risk in relation to bacterial food safety does not exist
- Industry**
 - Training and education : opportunities and consequences of WGS
 - Persistent microorganisms in the food processing environment
 - > Investigate presence + follow up cleaning and disinfection process
 - Other typing methods may still be valuable + possible selective WGS analyses
- Uncertainties**
 1. Technological evolution WGS: new opportunities and challenges
 2. Future use of WGS and transparency by food business operators
 3. WGS provides information on DNA sequence
-> expression and biological relevance remain uncertain
 4. Challenges related to interpretation: link to epidemiological data is essential
- WGS method**
 - Follow-up of the process of standardization and validation
 - There is no single "optimal" method and pipeline for WGS
- Data interpretation**
 - Interpretation by a multidisciplinary team
 - Combine WGS data with meta (epidemiological) data
- Data sharing**
 - One Health approach (Compare different isolates - human, food, animal and environment)
 - At national, European and international level
 - > Agreements to be made (data ownership, minimal meta data, centralization of the data, ...)
 - New infrastructure needed at Belgian level and/or at European level
 - > joint database for human and agro-food strains or two databases that can communicate
 - > EFSA pipeline communicating with ECDC pipeline (human clinical strains) is available

Acknowledgements

We would like to acknowledge all the members of the working group regarding WGS: N. Botteldoorn (DGZ), V. Delcenserie (ULiège), L. De Zutter (UGent), A. Geeraerd (KULeuven), L. Herman (ILVO), J. Mahillon (UCLouvain), M. Mori (Sciensano), N. Roosens (Sciensano), K. Van Hoorde (Sciensano) and B. Verhaegen (Sciensano).

For further information please visit: <http://www.favv-afsc.fgov.be/scientificcommittee/> > Opinions > 2021 > advice 18-2021

→ exchanges and structuring activities implying actors (scientists, authorities and stakeholders) for a collaborative food chain based on vision & ANTICIPATION



ANIMALS WITHOUT DISEASE: THE FUTURE OF THE ANIMAL PRODUCTION CHAIN?

SYMPOSIUM 02-12-2021



international symposium
NANOTECHNOLOGY IN THE FOOD CHAIN
OPPORTUNITIES & RISKS

24th NOVEMBER 2010
BRUSSELS, BELGIUM

Organised by the Federal Agency for the Safety of the Food Chain in the framework

SciCom
TREND WATCHING AND FOOD SAFETY CONTROL

SYMPOSIUM SciCom 2015

BRUSSELS
FRIDAY, 27 NOVEMBER 2015

EDITED BY THE SCIENTIFIC COMMITTEE AND THE STAFF DIRECTION FOR RISK ASSESSMENT OF THE BELGIAN FEDERAL AGENCY FOR THE SAFETY OF THE FOOD CHAIN (FASFC)



SciCom symposium 2016
Voedselveiligheid binnen een duurzame voedselketen

SciCom
WETENSCHAPPELIJK COMITÉ van het Belgische Federaal Agentschap voor de Veiligheid van de Voedselketen

Changing consumption patterns: what about food safety?

3 December 2019
BRUSSELS

15th Symposium of the Scientific Committee established at the Belgian Federal Agency for the Safety of the Food Chain



CHEMICAL RISKS IN THE FOOD CHAIN: CHALLENGES FOR THE RISK ASSESSOR AND THE RISK MANAGER

24 November 2017
BRUSSELS

13th Symposium of the Scientific Committee of the Belgian Federal Agency for the Safety of the Food Chain



FRAUD IN THE FOOD CHAIN AND CONSEQUENCES FOR FOOD SAFETY

2ND DECEMBER 2022 - BRUSSELS

OF THE SCIENTIFIC COMMITTEE
AL AGENCY FOR THE SAFETY OF THE FOOD CHAIN

PREVENTIVE VETERINARY MEDICINE IN A CHANGING WORLD: UTOPIA OR REALITY?

05/06/2024
BRUSSELS

Pacheco auditorium - Pachecolaan/Boulevard Pachéco 13



04/12/2026 : Hybrid threats on the food chain

14th Symposium of the Scientific Committee of the Federal Agency for the Safety of the Food Chain

BIG DATA IN THE FOOD CHAIN: the un(der)explored goldmine?

Tuesday 4th December 2018
Pachéco Center - Finance Tower
Boulevard Pachéco 13
BRUSSELS



SYMPOSIUM SciCom FASFC 2011
APPLICATIONS OF MICROBIOLOGICAL RISK ASSESSMENT IN THE FOOD CHAIN

BRUSSELS
FRIDAY, 25 NOVEMBER 2011

EDITED BY THE SCIENTIFIC COMMITTEE AND THE STAFF DIRECTION FOR RISK ASSESSMENT OF THE BELGIAN FEDERAL AGENCY FOR THE SAFETY OF THE FOOD CHAIN (FASFC)



FOOD SAFETY & SECURITY OF PLANT PRODUCTS

SYMPOSIUM - 08/12/2023
BRUSSELS

Pacheco Auditorium - Finance Tower - Boulevard Pachéco 13



A DATA-, EVIDENCE-, SCIENCE-, & RISK-BASED FOOD CHAIN

