

Generic priorities

A) Member State priorities identified in Delphi Study	B) Joint Projects (ED visits, Thematic & Partnering Grants)	C) Lead organis. (MS)	D) Partners	E) Link with EFSA priorities identified in EFSA Strategy 2020 (p. 23 and 26-27)
1. Methods and systems for identifying emerging food risks (e.g. new food-borne diseases)	Crisis preparedness <u>training</u> (2016)	BIOR (LV)	EE, LT, PL	Processes and a toolbox for emerging risks identification and crisis preparedness will be further developed, with particular emphasis in the areas of plant health and vector-borne (wild) animal diseases, and traceback, trace-forward methodologies and tools.
	<u>DEMETER</u> – DEtermination of METrics of Emerging Risk (2016)	Stichting Wageningen Research (NL)	<ul style="list-style-type: none"> Wageningen University (NL) University of Newcastle upon Tyne (UK) Federal Institute for Risk Assessment (DE) National Food Chain Safety Office (HU) 	
	FPA/AMU/2016 - Food Chain Lab: Development of RA tools for the safety of global food and feed supply chains (2017-2020) https://www.efsa.europa.eu/en/press/news/161208	BfR (DE)		
	Physico-chemical characterization and exposure analysis of the fraction of engineered nanomaterials in food additives in the context of risk assessment (2018-2020)	CODA-CERVA (BE)		
	Plant health: Phyllosticta species findings in EU (2018) (<i>pending signature</i>)	(MT)		
	Plant Health: Novel and improved tools for monitoring and tackling genetic selection in potato cyst nematode, Globodera Pallida, populations (PALADAPT)	INRA (FR)	<ul style="list-style-type: none"> WU (NL) JKI (DE) 	
	Generic approaches for RA of infectious animal disease introduction (G-RAID)	Stichting Wageningen Research (NL)	<ul style="list-style-type: none"> SVA (SE) DTU-VET (DK) IRTA (ES) EVIRA (FI) APHA (UK) 	
2. Development of standard risk-benefit assessment methods (of foods)	Risk-benefit modelling <u>workshop</u> (2017)	DTU (DK)		Set-up by end 2016 of an integrated framework containing EFSA's methodologies and guidances for evidence-based risk assessment, covering existing horizontal and sectorial methodologies and guidances; implementation from 2017 of a process for the continuous maintenance and updating of prioritised methodologies and guidances in cooperation with EU and international bodies (e.g. through the review of existing and/or development of new methodologies).
	Evidence based risk ranking of chemical and microbiological hazards in food (2017-2018)	NFA (SE)	<ul style="list-style-type: none"> EVIRA, FI 	
	RISKBENEFIT4EU – partnering to strengthen the risk benefit assessment within eu using a holistic approach	INSA (PT)	<ul style="list-style-type: none"> INRA (FR) DTU (DK) UPorto (PT) ASAE (PT) 	
3. Common data collection/ surveillance scheme	STOC-FREE – A Surveillance analysis Tool for Outcome-based Comparison of the confidence of FREEdom generated by control or eradication programmes (2016)	Utrecht University (NL)	<ul style="list-style-type: none"> Swedish National Veterinary Institute (SE) University College Dublin (IE) National College Veterinary Medicine (FR) Friedrich-Loeffler-Institut (DE) Scotland's Rural College (UK) 	Development of data sharing and exchange capacity. Set up and implement a comprehensive and integrated information architecture framework for centralised information access management, enabling data interoperability. Set up data exchange/openness networking groups and establish interoperability with main data providers, based on a multiannual plan to increase EFSA's evidence base in line with internationally accepted quality standards (such as with EUROSTAT, the JRC and EPPO, Member States). Set up innovative approaches to exploit all available sources of information, such as via social media. Set-up in 2016 of a cooperation plan with DG Health and Food Safety to develop
	Thematic grant 2017. GP/EFSA/AFSCO/2017/04 - "Smart monitoring of airborne plant pathogens: advances in aerobiology, and molecular diagnostics and remote sensing to support risk based plant health surveillance in the EU"	to be awarded end of 2017		

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	HOTLINE – harmonisation of transmissible disease interpretation in the EU	THESSALY UNIVERSITY (EL)	<ul style="list-style-type: none"> • IZSAM (IT) • SVA (SE) • IRTA (ES) 	capabilities supporting risk-based food inspections, such as on the risk ranking of biological and chemical contaminants) hazards and the development of appropriate surveys and surveillance schemes. Development of a holistic and integrated, pan-EU approach in environmental risk assessment with a focus on: • Bee health.
4. Multiple contaminant impacts on the risk profile of foods				
5. Risks/benefits of botanicals/herbals in food supplements				
6. Allergenicity/ food allergens in general (RA and management)				
7. Aggregated exposure (via cocktail effects, but including environmental/ food exposure)				Development of a holistic and integrated, pan-EU approach in environmental risk assessment with a focus on: A coordinated landscape-based framework across all relevant areas of EFSA's remit (pesticides, feed additives, GMOs, plant health, animal health). Spatially explicit ecotoxicology and environmental fate and behavior for pesticides.

Chemical priorities

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8. Harmonisation of methods for risk assessment of chemical contaminants	Benchmark Dose modelling: Updating RIVM's PROAST tool to R4EU web platform https://www.efsa.europa.eu/en/press/news/170124	RIVM (NL)		Set-up by end 2016 of an integrated framework containing EFSA's methodologies and guidances for evidence-based risk assessment, covering existing horizontal and sectorial methodologies and guidances; implementation from 2017 of a process for the continuous maintenance and updating of prioritised methodologies and guidances in cooperation with EU and international bodies (e.g. through the review of existing and/or development of new methodologies).
	Task Force on varnishes and coatings for Food Contact Materials	NVWA (NL)	<ul style="list-style-type: none"> • WIV-ISP (BE) • Croatian Institute Public Health (HR) • ISS (IT) • USC (ES) • RIVM (NL) • NIJZ (SI) 	
9. Cumulative exposure assessment (e.g. for pesticide residues/ PAHs)	FPA on cumulative exposure assessment of pesticide residues in food and feed commodities (Use, maintain, improve Monte Carlo Risk Assessment (MCRA tool) 2017-2020	RIVM (NL)		Development of a holistic and integrated, pan-EU approach in environmental risk assessment with a focus on: A coordinated landscape-based framework across all relevant areas of EFSA's remit (pesticides, feed additives, GMOs, plant health, animal health). Spatially explicit ecotoxicology and environmental fate and behavior for pesticides.
10. Infant and baby food				
11. Emerging contaminants	MYCHIF - Mycotoxin mixtures in food and feed: holistic, innovative, flexible risk assessment modelling approach (2016)	Università Cattolica del Sacro Cuore (IT)	<ul style="list-style-type: none"> • Università degli studi di Parma (IT) • National Research Council (IT) • Istituto Superiore di Sanità (IT) • INRA (FR) • Universidade do Minho (PT) • Queens University of Belfast (UK) 	

Microbiological priorities

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12. Systems for monitoring and characterising microbes isolated from food, environment and human illness cases				Set-up in 2016 of a cooperation plan with DG Health and Food Safety to develop capabilities supporting risk-based food inspections, such as on the risk ranking of biological and chemical (contaminants) hazards and the development of appropriate surveys and surveillance schemes
13. Improve the use of genetic data (e.g. from whole genome sequencing) for risk assessment of microbiological contaminants	<u>ENGAGE</u> - establishing next generation sequencing ability for genomic analysis in Europe (2015)	DTU (DK)	<ul style="list-style-type: none"> Public Health England (PHE), UK DEFRA, UK BfR, DE National Veterinary Research Institute, PL IZSLT, IT IZSVe, IT National Institute of Public Health, PL. 	Development and gradual integration in EFSA guidance of new approaches in prioritised chemical and biological risk assessment areas to strengthen EFSA's capability to deal with the absence of data, address complex questions and reduce uncertainty. These areas include: Biological risk assessment (across food safety, animal health and welfare and plant health): food-borne viruses, Campylobacter from farm to fork, predictive modelling for biological risks, microorganisms as plant protection products, microbiological criteria, whole genome sequencing, animal-based indicators for animal welfare risk assessment
	<u>INNUENDO</u> - a cross-sectorial platform for the integration of genomics in surveillance of food-borne pathogens (2015)	University of Helsinki, FI	<ul style="list-style-type: none"> THL FI EVIRA, FI University Veterinary Medicine Vienna, AT Universidade de Lisboa, PT University of the Basque Country, ES Instituto Nacional de Saude, PT Veterinary and Food Laboratory, EE BIOR, LV 	
14. Antimicrobial/antibiotic resistance	Resistance dynamics in <i>E. coli</i> from food, animals, humans and the environment, using whole genome sequencing (2018)	IS		Set-up in 2016 and implementation from 2017 of a coordinated plan on combatting anti-microbial resistance (AMR) with the European Commission, sister agencies and Member States.
	AMR in seafood as common ground for knowledge exchange and risk assessment: ASK	ANSES (FR)	<ul style="list-style-type: none"> NIFES (NO) IZSUM (IT) DTU FOOD (DK) CEFAS (UK) 	
15. Microbial food pathogens (in general)				
16. Food-borne viruses (in general, e.g. Hepatitis A and Norovirus in fruit and vegetables)	International <u>workshop</u> on foodborne viruses (2016)	FSA (UK)		Development and gradual integration in EFSA guidance of new approaches in prioritised chemical and biological risk assessment areas to strengthen EFSA's capability to deal with the absence of data, address complex questions and reduce uncertainty. These areas include: Biological risk assessment (across food safety, animal health and welfare and plant health): food-borne viruses, Campylobacter from farm to fork, predictive modelling for biological risks, microorganisms as plant protection products, microbiological criteria, whole genome sequencing, animal-based indicators for animal welfare risk assessment
17. Campylobacter (e.g. in poultry and ready-to-eat foods)	Genomic epidemiology of fluoroquinolone resistant <i>Campylobacter jejuni</i> from poultry GENCAMP (2016-2017)	DTU (DK)		
18. Zoonoses (in general, including bio-hazards, MRSA etc.)	Evaluation of listeriosis risk related with the consumption of non-pre-packaged RTE cooked meat products handled at retail stores in Greece (2017)	EFET (GR)		

Environmental priorities

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19. Improving information on the occurrence and spread of harmful organisms	Analysis of spatial distribution of African Swine Fever (ASF) virus Workshop (Baltic States and Poland) (Nov 2015)			
	Risk characterization of ciguatera food poisoning in Europe (2016-2019)	AECOSAN (ES)	<ul style="list-style-type: none"> • Institute of Health Carlos III, ES • IRTA, ES • University of Vigo, ES • Canary Health Service, ES • Universidad de las Palmas de Gran Canaria, ES • Ifremer, FR • BfR, DE • ASAE, PT • Instituto Nacional de Saude, PT • University of Thessaly, Veterinary Faculty, EL • Portuguese Sea and Atmosphere Institute, PT • SGL, CY • Aristotle University of Thessaloniki, EL 	
	Lumpy Skin Disease Workshop – strengthening regional cooperation in SE Europe and Middle East for prevention and control of LSD (2016)			
	Workshop on Crisis Preparedness focusing on Plant Health	AESA (PT)		
20. Ribonucleic acid interference (RNAi) applied to food producing organisms as pesticide, veterinary medicine or newly expressed trait in genetically modified crops				
21. Better understand biological organisms and plant substances used in crop protection (reducing the need for chemicals, e.g. pesticides)				Development of a holistic and integrated, pan-EU approach in environmental risk assessment with a focus on: A coordinated landscape-based framework across all relevant areas of EFSA's remit (pesticides, feed additives, GMOs, plant health, animal health). Spatially explicit ecotoxicology and environmental fate and behavior for pesticides.
22. The impact of chemicals on the ecosystem (release of chemicals into the environment)	VKM & EFSA Symposium “Advancing Environmental Risk Assessment by Accounting for Biodiversity and Ecosystem Services as Protection Goals” (2017) available on VKM's website	VKM (NO)		Development and gradual integration in EFSA guidance of new approaches in prioritised chemical and biological risk assessment areas to strengthen EFSA's capability to deal with the absence of data, address complex questions and reduce uncertainty. These areas include: Chemical risk assessment: endocrine disruptors; epigenetics; chemical mixtures; nanotechnology; read-across; human variability; human biomonitoring; developmental neurotoxicity testing strategy.

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23. Presence/detection of environmental contaminants in food (e.g. from agricultural, industrial or household sources)				
24. Cocktail effects (health risk assessment of chemical mixtures, e.g. food additives)	EFSA/RIVM workshop on chemical mixtures (2016)			Development and gradual integration in EFSA guidance of new approaches in prioritised chemical and biological risk assessment areas to strengthen EFSA's capability to deal with the absence of data, address complex questions and reduce uncertainty. These areas include: Chemical risk assessment: endocrine disruptors; epigenetics; chemical mixtures; nanotechnology; read-across; human variability; human biomonitoring; developmental neurotoxicity testing strategy.

Nutrition priorities

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25. Indirect effects on human health due to modified agricultural practices (e.g. via reduction of pesticide use, changed content of mycotoxins)	International Conference: The burden of Mycotoxins on animal and human health, Rome (2017) Programme	ISS (IT)		Development of a holistic and integrated, pan-EU approach in environmental risk assessment with a focus on: A coordinated landscape-based framework across all relevant areas of EFSA's remit (pesticides, feed additives, GMOs, plant health, animal health). Spatially explicit ecotoxicology and environmental fate and behavior for pesticides.
26. Developing standard biomarkers of intake of and/or exposure to contaminants	Dietary exposure assessment and use of the IMPRORISK model (2016) http://www.improrisk.com/news.html	SGL (CY)		
27. Food supplements risk/benefits (in general)				
28. Determination of allergen thresholds (clinical studies), in conjunction with immune-chemical measurements of allergens in foods	Thematic grant 2017: GP/EFSA/AFSCO/2017/03 - "Detection and quantification of allergens in foods and minimum eliciting doses in food allergic individuals"	to be awarded end of 2017		

Legend – Above table shows the synergy and overlaps between food safety risk assessment priorities identified through Delphi study (December 2015) (**column A**) and the strategic objectives of the EFSA Strategy 2020 implementation plan (April 2016) (**column E**). **Column B** shows Joint Projects agreed during ED visits to Member States, Partnering and Thematic grants signed or their areas proposed, their lead organisation (Member State) (**column C**) and partners in projects (**column D**).

Further information is available on the DMS: [ED visits update](#): containing presentations, agenda's and flash reports and on EFSA website under "[Annual lists of grant agreements](#)". The latest EU RAA catalogue (April 2017) is available [here](#).