



Fera NRL Annual Report 2017 to 2018

Report to the Food Standards Agency



Annual Report

Annual Report on Operation of National Reference Laboratory (Chemical Safety in Food and Feed) by Fera Science Ltd.

April 2017 – March 2018

Specification Title	Fera NRL Duties
Sponsor	Food Standards Agency
FSA Project Officer	Chelvi Leonard
Original Specification Reference	FS616030, FS616031, FS616032, FS616033, and FS616034

Report Number	Fera/NRL/2015/10
Fera Project Number	FR/000832
Project Manager	Susan MacDonald

Principal Workers	Susan MacDonald, Malcolm Baxter, Mike Walls, Martin Rose, Alwyn Fernandes, Frankie Smith, Joe Holland, Sean Panton, Stephen Chapman, Emma Bradley, Malcolm Driffield, Irene Leon.
-------------------	--

Authors	Susan MacDonald, Irene Leon.
---------	------------------------------

Authoriser	Emma Bradley
------------	--------------

Note: Whilst care has been taken to ensure that the web links contained in this report are correct at the time of issue, changes may occur.

This report has been prepared by Fera after exercise of all reasonable care and skill but is provided without liability in its application and use. This report may not be reproduced except in full, without the written approval of Fera.

Copyright © Fera Science Ltd. (Fera) 2018

Contents

1	Glossary	...	...	...	...	...	...	...	...	...	4
2	Legislative framework	...	...	...	...	...	...	...	...	...	5
3	Role and scope of the NRL	...	...	...	...	...	...	...	...	...	7
4	NRL Mycotoxins and Plant Toxins in Food and Feed	...	...	...	...	...	...	...	...	...	8
5	NRL Heavy Metals and Nitrogenous Compounds in Food and Feed...	...	...	...	...	...	...	...	...	...	9
6	NRL Halogenated POPs in Food and Feed	...	...	...	...	...	...	...	...	...	10
7	NRL Processing Contaminants (PCs) in Food	...	...	...	...	...	...	...	...	...	12
8	NRL Materials and Articles in Contact with Food	...	...	...	...	...	...	...	...	...	14
9	Objective 01: Secretariat services	...	...	...	...	...	...	...	...	...	15
10	Objective 02: Advice and representation within the UK/EU	...	...	...	...	...	...	...	...	...	17
11	Objective 03: Production of standard operating procedures, codes of practice and guidance documents	...	...	...	...	...	...	...	...	...	23
12	Objective 04: Compliance assessment via audits and ring trials	...	...	...	...	...	...	...	...	...	25
13	Objective 05: Co-ordination within the UK of EURL initiatives	...	...	...	...	...	...	...	...	...	29
14	Objective 06: Communication of results and data use	...	...	...	...	...	...	...	...	...	30
15	Deliverables	...	...	...	...	...	...	...	...	...	31

1. Glossary

APA	- Association of Public Analysts
BfR	- Bundesinstitut für Risikobewertung
BFR(s)	- Brominated Flame Retardants
CoE	- Council of Europe
Competent Authority	- Central authority of a Member State competent for the organisation of official controls
CP(s)	- Chlorinated paraffins
CWG	- Core Working Group
EC	- European Commission
EFSA	- European Food Safety Authority
EU	- European Union
EURL	- European Union Reference Laboratory
Fera	- Fera Science Ltd
FSA	- Food Standards Agency
FSS	- Food Standards Scotland
LA	- Local Authority
MS	- Member State(s)
NRL	- National Reference Laboratory
OCL	- Official Control Laboratory
PAHs	- Polycyclic Aromatic Hydrocarbons
PCBs	- Polychlorinated biphenyls
PCDDs	- Polychlorinated dibenzo-p-dioxins
PCDFs	- Polychlorinated dibenzofurans
PCDD/Fs	- collectively referred to as dioxins
PFAS	- Per- and Polyfluoroalkyl Substances
PT	- Proficiency test(s)

2. Legislative framework

Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules establishes a harmonised framework of rules for Member States to adhere to at a Community level.

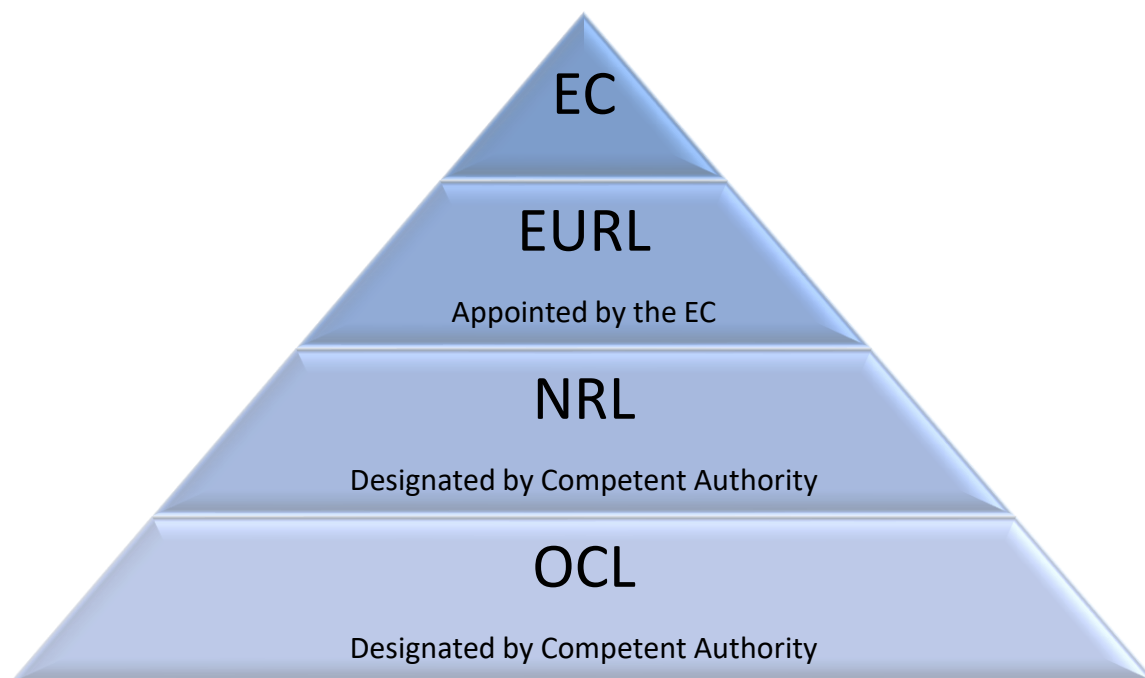
Under Article 2, Regulation (EC) No 882/2004 defines a 'competent authority' as the central authority of a Member State competent for the organisation of official controls. The UK competent authorities responsible for official controls in respect of feed and food law are designated formally in domestic legislation that gives effect to Regulation (EC) No 882/2004 at a national level. In the UK, responsibility for official feed and food controls is held at central Government level. Responsibilities are devolved; for contaminants the competent authorities are the Food Standards Agency (FSA) in England, Wales and Northern Ireland and Food Standards Scotland (FSS).

The European Commission created a network of laboratories at EU and Member State levels. This network of laboratories is responsible for setting up EU-wide standards for routine procedures and reliable testing methods in the areas of feed and food and animal health.

European Reference Laboratories (EURLs) are appointed by the Commission through Regulation (EC) No 625/2017. The Articles relevant to EURLs came into force of 20 April 2018 and replaced and repealed Regulation (EC) No 882/2004. EURLs assist the harmonisation process by increasing the current analytical scope throughout the EU in quantity and quality of the results. Article 94 of Regulation (EC) No 625/2017 gives the responsibilities of the EURLs which include provision of existing and new analytical and reference methods and their application, comparative testing and appropriate follow-up, provision of training courses. EURLs provide scientific and technical assistance to the Commission, especially in cases where Member States contest the results of analyses.

For each EURL, Member States designate one or more National Reference Laboratory (NRL). The responsibilities of NRLs are laid out in Article 101 of Regulation (EC) No 625/2017.

Central competent authorities designate official laboratories for the purposes of chemical analysis or microbiological examination of feed or food samples taken by enforcement practitioners. Control bodies are independent third-party organisations to which specific control tasks have been delegated by the competent authority including chemical analysis, inspection or sampling. In the UK these functions are carried out by Official Control Laboratories (OCLs). The competent authority retains the responsibility for the work and for taking any formal enforcement action should non-compliance be found. Control bodies are subject to audit or inspection by the competent authorities in respect of the control tasks delegated to them.



This establishes a network between EURLs, NRLs and OCLs. The overall objective of the EURLs and NRLs is to improve the quality, accuracy and comparability of the results of OCLs.

Under Commission Regulation (EU) 2018/192 of 8 February 2018 amending Annex VII to Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the EU reference laboratories in the field of contaminants in feed and food, there were changes to some EURLs.

The Joint Research Centre (JRC) of the European Commission ceased to host the EURL for heavy metals in feed and food, the EURL for Polycyclic Aromatic Hydrocarbons (PAHs) and the EURL for mycotoxins in food and feed from the 31st December 2017. As stated in Commission Regulation (EU) 2018/192, new EURLs were appointed. More information is given in the relevant sections.

3. Role and scope of the NRL

In summary, it is a requirement of Regulation (EC) No 625/2017 that NRLs:

- a) collaborate with the EURL in their area of competence;
- b) coordinate, for their area of competence, the activities of official laboratories responsible for the analysis of samples;
- c) organise comparative tests between the official national laboratories and ensure an appropriate follow-up of such comparative testing;
- d) ensure the dissemination to the competent authority and official national laboratories of information that the EURL supplies;
- e) provide scientific and technical assistance to the competent authority for the implementation of MANCPs referred to in Article 109 and of coordinated control programmes adopted in accordance with Article 112;
- f) where relevant maintain up-to-date lists of available reference substances and reagents, and manufacturers and suppliers of these;
- g) where necessary, conduct training courses for the staff of official laboratories designated under Article 37.

Fera acts as the UK NRL in the following five areas:

- NRL Mycotoxins and Plant Toxins in Food and Feed
- NRL Heavy Metals and Nitrogenous Compounds in Food and Feed
- NRL Halogenated Persistent Organic Pollutants (POPs) in Food and Feed
- NRL Processing Contaminants (PCs) in Food
- NRL Materials and Articles in Contact with Food

The current NRL contract duration is from 1st April 2017 until 31st March 2019.

Fera may also be called upon to offer advice to the FSA relating to the impact of Brexit on food controls.

4. NRL Mycotoxins and Plant Toxins in Food and Feed

Mycotoxins are secondary metabolites produced by some moulds that can occur in a wide range of foods, often with no visible signs of mould spoilage to the food. They have a wide range of chemical properties and toxicities to humans and food-producing animals. Exposure to some mycotoxins is controlled through European and National Legislation. The Contaminants in Food (England) Regulations 2013 provide for the enforcement of European Commission Regulation (EC) No 1881/2006, setting maximum levels for certain contaminants in foodstuffs. There are similar domestic Regulations for Scotland, Wales and Northern Ireland. Methods to be used for sampling and analysis for enforcement purposes are prescribed in Commission Regulation (EC) No 401/2006 and its subsequent amendments Commission Regulation (EU) No 178/2010 and Commission Regulation (EU) No 519/2014.

NRL contact: Susan MacDonald Susan.MacDonald@fera.co.uk

EURL

The EURL for mycotoxins aims to facilitate the implementation of European legislation related to monitoring of mycotoxins in food of plant origin and animal feed.

Up until the end of 2017 the EURL was the Joint Research Centre (JRC), Geel, Belgium.

http://irmm.jrc.ec.europa.eu/EURLs/eurl_mycotoxins/Pages/index.aspx

On the 1st January 2018, RIKILT Wageningen University & Research became the EURL mycotoxins and plant toxins (EURL-MP). The remit of the EURL was extended by the European Commission to also cover plant toxins such as pyrrolizidine alkaloids and tropane alkaloids.

<https://www.wur.nl/en/Research-Results/Research-Institutes/rikilt/Reference-laboratory/European-Union-Reference-Laboratory-1/EURL-mycotoxins-plant-toxins.htm>

The scope of the NRL was expanded in line with the EURL and now in addition to mycotoxins incorporates plant toxins including tropane alkaloids, pyrrolizidine alkaloids, tropane alkaloids, erucic acid, gossypol, tetrahydrocannabinol (THC) and hydrocyanic acid.

5. NRL Heavy Metals and Nitrogenous Compounds in Food and Feed

Contaminants such as heavy metals are substances that have not been intentionally added to food. These substances may be present in food as a result of the various stages of its production, packaging, transport or holding. They also might result from environmental contamination. Since contamination generally has a negative impact on the quality of food and may imply a risk to human health, European legislation lays down maximum allowed limits in foodstuffs. EU regulations cover the following heavy metals: cadmium, lead, mercury, arsenic and inorganic tin. Legislation can be found in European Commission Regulation (EC) No 1881/2006, amended by Commission Regulation (EU) No 420/2011.

Sampling methods and the methods of analysis for the official control of the levels of cadmium, lead, mercury, inorganic tin and arsenic are given in Commission Regulations (EC) No 333/2007 and Commission Regulation (EU) 2016/582.

NRL contact: Mike Walls michael.walls@fera.co.uk

EURL

The EURL for Heavy Metals in Feed and Food was the Joint Research Centre (JRC), Geel, Belgium.

<https://ec.europa.eu/jrc/eurl/heavy-metals>

From 1st January 2018, the EURL for metals and nitrogenous compounds (EURL-MN) is hosted by the National Food Institute at the Technical University of Denmark (DTU). An increase in scope saw nitrogenous compounds added to the remit of the EURL.

<http://www.eurl-mn.eu/>

In alignment with the EURL, the NRL scope was extended from 1st April 2017 to include all metals such as aluminium and nickel as well as heavy metals and nitrogenous compounds (nitrate, nitrite and melamine).

6. NRL Halogenated POPs in Food and Feed

Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs), collectively referred to as dioxins (PCDD/Fs), along with polychlorinated biphenyls (PCBs) are a group of toxic and persistent chemicals. Their effects on human health include dermal toxicity, immunotoxicity, reproductive effects and teratogenicity, endocrine disrupting effects and carcinogenicity. There is considerable public, scientific and regulatory concern over the negative effects on human health and on the environment of long-term exposure to even the smallest amounts of dioxins and PCBs. Over the past two decades the European Commission has proposed wide ranging legislation aimed at directly or indirectly reducing the release of these compounds into the environment, with the objective of reducing human exposure and protecting human health and the environment.

NRL contact: Frankie Smith frankie.smith@fera.co.uk

EURL

The EURL has remained the State Institute for Chemical and Veterinary Analysis (CVUA Freiburg).

<http://www.crl-freiburg.eu/dioxin/index.html>

The scope of the EURL for dioxins and PCBs in feed and food was extended to all halogenated persistent organic pollutants (POPs) in feed and food; it was renamed EURL for halogenated persistent organic pollutants (POPs) in feed and food to reflect the extension of scope in Commission Regulation (EU) 2018/192.

Brominated flame retardants (BFRs) are commonly used to reduce flammability in a variety of products. Certain BFRs have been banned or restricted in the EU but they persist in the environment where they enter the food chain and are potentially harmful. Polybrominated diphenyl ethers (PBDEs) are additive flame retardants and are environmentally ubiquitous. Hexabromocyclododecanes (HBCDDs) are also additive flame retardants. Fera participates in the Core Working Group for BFRs coordinated by the EURL.

Pentachlorophenol (PCP) has been identified as a contaminant in guar gum with restrictions placed on imports from India. When studied, the EURL found that guar gum containing a level of PCP below the Maximum Residue Limit (MRL) of 0.01 mg/kg does not contain unacceptable levels of dioxins. Therefore, compliance with the MRL on PCP, ensures in this specific case also a high level of human health protection as regards dioxins.

Pentachlorobenzene has been used industrially and is also formed during incineration processes. It is moderately toxic to humans and highly toxic to aquatic organisms.

Polychlorinated naphthalenes (PCNs) are legacy contaminants. Some congeners demonstrate not only dioxin-like toxicity, but also embryotoxicity, fetotoxicity, hepatotoxicity and immunotoxicity amongst other effects.

Perfluoroalkyl Substances (PFAS) are a range of synthetic chemical compounds used across a range of industries for their water proofing, grease proofing and stain repellent properties. Within the food sector they are extensively used on cookware and other equipment that are regularly in contact with food which can result in increased exposure to these potentially harmful contaminants. PFAS are known to bioaccumulate. Perfluorooctane sulfonate (PFOS) belongs to the perfluoroalkyl sulfonic acids (PFSAs) and Perfluorooctanoic acid (PFOA) belongs to the perfluoroalkyl carboxylic acids (PFCAs). The widespread use of PFOS, PFOA and their precursors, together with their persistency, has resulted in widespread environmental contamination.

Chlorinated paraffins are used as a temperature moderator for machining/ drilling processes; this is the largest single application by usage globally. Emphasis on production has moved away from short chain chlorinated paraffins (SCCPs) to medium (MCCPs) and long chain chlorinated paraffins (LCCPs). Fera has participated in the EURL Chlorinated Paraffins Core Working Group covering methodology.

7. NRL Processing Contaminants in Food

Polycyclic aromatic hydrocarbons (PAHs) constitute a large class of organic compounds containing two or more fused aromatic rings made up of carbon and hydrogen atoms. Hundreds of individual PAHs may be formed and released during incomplete combustion or pyrolysis of organic matter, during industrial processes and other human activities. PAHs are also formed in natural processes, such as carbonisation.

In food, PAHs may be formed during processing and domestic food preparation, such as smoking, drying, roasting, baking, frying or grilling. Vegetables may be contaminated by the deposition of airborne particles or by growth in contaminated soil. Meat, milk, poultry and eggs will normally not contain high levels of PAHs due to rapid metabolism of these compounds in the species of origin. However, some marine organisms, such as mussels and lobsters are known to adsorb and accumulate PAHs from water, which may be contaminated, for example by oil spills. Of the many hundreds of PAHs, the most studied is benzo(a)pyrene. Exposure to PAHs is controlled by European Commission Regulation (EC) No 1881/2006, setting maximum levels for benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene in certain food stuffs.

NRL contact: Sean Panton sean.panton@fera.co.uk

EURL

The EURL for Polycyclic Aromatic Hydrocarbons was the Joint Research Centre (JRC), Geel, Belgium.

<https://ec.europa.eu/jrc/eurl/pahs>

The EURL Processing Contaminants (EURL-PC) has been hosted at DTU, Denmark since 1st January 2018.

From 1st April 2017, processing contaminants including furan, MCPD and esters, glycidyl esters and acrylamide were also included as NRL responsibilities as well as PAHs, and the EURL role renamed as Processing Contaminants (PC).

<http://www.eurl-pc.eu/>

Process contaminants are formed during food processing or heat treatment and will be dependent on the conditions used and the foodstuff.

Acrylamide is generated during the heat treatment of carbohydrate rich foods and potentially increases the risk of developing cancer for consumers in all age groups. From April 2018 Commission Regulation (EU) 2017/2158 will take effect to try to help reduce consumer exposure to acrylamide. This will establish best practice and benchmark levels for the reduction of the presence of acrylamide in food.

EFSA published a scientific opinion in October 2017 concluding exposure to furan in food indicates a potential human health concern. Based on animal studies, liver damage and liver cancer are the most critical health effects. Furans, and related compounds 2- and 3-

methyl furan, are found in a variety of foods including coffee and food stored in cans, jars, packets and pouches.

3-monochloropropanediol (3-MCPD) is created in foods during protein hydrolysis when hydrochloric acid is added at high temperature to speed up the breakdown of proteins into amino acids rather than via traditional slow fermentation. 3-MCPD has been found in some Asian sauces such as oyster sauce, hoisin sauce and soy sauce. Commission Regulation (EU) 2018/290 of 26 February 2018 amending Regulation (EC) No 1881/2006 gives a maximum level of 3-MCPD in hydrolysed vegetable protein (HVP) and soy sauce as 20 µg/kg. 3-MCPD is of possible concern for the kidney and testis as target organs.

MCPD esters and glycidyl esters are processing contaminants found in palm oils and fats and other vegetable oils. They are formed when refining vegetable oils at high temperatures (approx. 200 °C). Glycidyl fatty acid esters are hydrolysed into glycidol in the gastrointestinal tract; glycidol is a genotoxic and carcinogenic compound. Glycidyl fatty acid esters expressed as glycidol in vegetable oils, vegetable fats and infant formula are also included in Commission Regulation (EU) 2018/290 (an assessment of 3-MCPD and its esters is awaited before these are included). There is a stricter maximum level for vegetable oils and fats destined for baby food production and processed cereal-based food for infants and young children. The maximum level in infant formulae is set to decrease over time to allow food businesses time to adapt their production processes.

8. NRL Materials and Articles in Contact with Food

The term materials and articles in contact with food describes any material that may come into contact with a foodstuff, either directly or indirectly. The most obvious example is food packaging, but the term also encompasses materials (and articles) used in food processing, transport, preparation and consumption. Any chemical constituents present in materials and articles have the potential to transfer to the foods with which they come into contact. This transfer is known as chemical migration. The migration of chemicals from food contact materials and articles is controlled by EU legislation which has been implemented in the United Kingdom.

NRL contact: Malcolm Driffield malcolm.driffield@fera.co.uk

EURL

The Joint Research Centre (JRC) remains the EURL for Food Contact Materials (EURL-FCM). This is based in Ispra, Italy.

<https://ec.europa.eu/jrc/en/eurl/food-contact-materials>

The scope of the EURL and the NRL have not been altered.

9. Objective 01: Secretariat services

As the NRL Fera will provide support to the FSA, OCLs and other relevant laboratories through the dissemination of information, guidelines, meeting notes, test protocols and analytical methods, reporting of results, website maintenance and hosting regular meetings of the relevant parties.

Task 1. Disseminate information/advice supplied by the EURL and its working groups to the FSA, OCLs and other relevant laboratories in a timely and effective manner.

Fera provides all documents received from the EURL within two weeks of receipt. Publicly available documents or links are added to the Fera NRL website.

Task 2. Co-ordinate activities of OCLs and other relevant laboratories in relation to the core functions.

A Steering Committee Meeting is used to manage the operation of this NRL function. The Steering Committee acts to ensure effective communication between OCLs and the NRL and as a vehicle for feedback by OCLs on NRL performance. This has already been proven to be a valuable platform for the exchange of information and for feedback on performance and includes the FSA as well as the OCLs and Fera. It is used to define the training activities required for the next period as well as visits and other support required.

Task 3. Create and maintain an efficient two-way channel of communication with OCLs and relevant laboratories and the EURL, including dissemination of information on analytical methods and EU Regulations to OCLs and feedback of comments from the OCLs to the EURL.

Fera experts regularly scan the scientific literature for emerging food and feed safety topics and have established links with the EURL Network. Relevant information on current and new methods and Legislation is highlighted on the Fera NRL website.

Fera seeks feedback on questions or issues from the OCLs to raise with the EURL or the other NRLs with whom they already have a dialogue and established working relationship thus ensuring efficient two-way communication.

Fera maintains a dedicated NRL e-mail address which is regularly monitored:

nrl@fera.co.uk

Task 4. Provide regular updates to the FSA on NRL activities, and up to date information on UK OCLs and other relevant laboratories to the FSA as requested.

A monthly NRL Activity Log is prepared and submitted to the FSA. All work is then summarised in an Annual Report. Specific topics or items arising are dealt with individually in a timely manner.

Task 5. *Create and maintain a dedicated website for communication of the work of the NRL including provision of advice and support to OCLs, information on methods of analysis, SOPs, latest developments and other background information.*

Fera already had an existing dedicated NRL website up-and-running as part of its NRL services and provided information on legislation, analysis, resources, latest developments, meetings and conferences. It was set up to meet the needs of the OCLs and formal feedback confirmed that it fully met their needs and expectations. The NRL website was updated in line with a corporate revamp of the website:

<https://www.fera.co.uk/about-us/national-reference-laboratory>

A list of relevant tasks carried out is given below:

- There was contact with the FSA and OCLs in the organisation of the Steering Group Meeting held on 19th July 2017.
- The details of a mycotoxin workshop being held at QUB, Belfast in October 2017 were circulated to OCLs.
- A link to the CIRCABC website was sent by the EURL Mycotoxins, allowing access to the presentations given at the EURL/NRL workshop.
- FSA (Imports and Exports Branch) hosted a visit from a delegation from the Food Safety and Standards Authority of India (FSSAI) in February 2018 and requested a visit to Fera to learn about the role and function of the NRL, OCL network, how controls are implemented in the UK, laboratory quality issues, and sampling for enforcement and industry controls. Six visitors from FSSAI were accompanied by three FSA colleagues on the visit.
- A training day on processing contaminants was agreed with the FSA and APA and was held on 22nd March 2018 at Fera.
- RIKILT, the new mycotoxins and plant toxins EURL contacted the NRL in January 2018 to request confirmation of contact information and to inform of the date of the next EURL/NRL Workshop. The contact form was updated and returned to RIKILT.

10. Objective 02: Advice and representation within the UK/EU

Fera will provide impartial expert advice to the FSA, OCLs and other relevant laboratories on all issues relating to contaminants and food contact materials, e.g. updates in legislation, testing methodologies, emerging issues and publications.

Task 1. Provide impartial expert advice as requested to the FSA, OCLs and other relevant laboratories on analytical methodology in the context of Official Controls.

All advice provided by Fera staff is impartial and is based on our heritage as an official Government Laboratory. Fera scientists have maintained their experience in evaluation of analytical methods when considering the suitability of data for inclusion in exposure assessments, e.g. via participation in EFSA working groups as well as reviewing manuscripts for publication in peer reviewed publications.

Fera staff are experienced in method development and validation and have developed methods that are used in Official Controls in the UK. This is complemented by in-depth knowledge of the performance requirements of sampling and analytical methods used in Official Controls.

Task 2. Represent the UK at relevant EURL meetings, and its working-groups, consulting the FSA on objectives and requirements before each meeting and providing the FSA with an internal report of the meeting within two weeks of each meeting.

Agendas received in advance of EURL meetings are forwarded to the FSA and information was exchanged either by telecon or by e-mail to ensure that the Fera member of staff attending the meeting was aware of any particular FSA interests or requirements. Any points highlighted will be raised in the meeting and the discussions will be documented and included in the meeting note. Meeting notes were provided to the FSA promptly.

Task 3. Participate in activities organised by the EURL and contribute to the scientific input at EURL meetings and in manner which supports UK policy based on best available scientific knowledge.

Fera staff continue to be trained in new and emerging areas, e.g. by attending the annual EURL meeting and relevant conferences to maintain expert knowledge.

Task 4. Advise the FSA, OCLs and other relevant laboratories on best scientific practice in testing for Official Controls and undertaking activities in consultation with the FSA that facilitate and promote their application in the UK within the policy aims of the FSA.

Maintaining an up-to-date website, providing feedback from EURL-NRL network meetings in a timely manner and offering practical training to OCLs, ensure that this task is met.

Task 5. *Keep abreast of and advise the FSA, OCLs and other relevant laboratories of developments for the sampling, testing and detection of analytes.*

See Tasks 1 - 4.

Task 6. *Identify and inform the FSA, OCLs and other relevant laboratories of emerging analytical issues or developments at a national, European or international level and recommend action to address them.*

The NRL website is updated to contain this information. Specific emergent issues will be communicated directly if required and a list of contacts for OCLs is maintained to ensure that this can be achieved promptly. Information from the EURL-NRL network is used as a useful means of information exchange on this topic.

A list of relevant tasks carried out is given below:

- Provision of information and advice to Italian NRL regarding analysis of Brominated Flame Retardants.
- Participation in EURL Core Working Group (CWG) Chlorinated paraffins workshop in June 2017.
- Fera participated in training for acrylamide analysis by LC-MS/MS provided by the EURL JRC IRMM, Geel in April 2017.
- Additional data was supplied on method recovery and other analytical parameters to RIKILT for the ergot and tropane alkaloid in animal feed MVS carried out previously.
- Attended workshop of dioxins EURL/NRL network on 31st May and 1st June 2017 in Prague.
- Participation in Workshop CWG Dioxin Patterns 30th May 2017.
- Received Updated Analytical Criteria and Sampling Regulations 2017/644 (Food) and 2017/771 (Feed), and new Official Control regulations 2017/625 on Official Control and Other Official activities performed to ensure the application of food and feed law. Rules on animal health and welfare, plant health and plant protection products.
- Attended Plenary EURL-FCM-NRL meeting 16th and 17th May 2017 in Ispra, Italy.
- Completed EURL-FCM survey on mineral oils and submitted to EURL-NRL Task Force.
- A meeting was held with Food Standards Scotland (FSS) in June 2017 where FSS was updated on activities in the contaminants areas and how as NRL, Fera can provide further advice. Information about OCL capability and capacity was provided.
- Notification was received in June 2017 of a review article “Incidents with Dioxins and PCBs in Food and Feed - Investigative Work, Risk Management and Economic Consequences” that had been published in the latest issue (Vol.8 No.6 2017) of the

Journal of Environmental Protection (JEP) 2017, 8, 744-785, a journal with open access policy. It is accessible at: <http://www.scirp.org/journal/JEP/>

- CWG Chlorinated Paraffins Workshop was attended on 31st May and 1st June 2017 in Prague. A Meeting Note was prepared and emailed to the FSA.
- As collaboration of the Patterns CWG, an abstract was submitted for the Dioxin 2017 conference: "Data base of PCDD/F and PCB congener patterns for identification of sources for contamination of feed and food".
- A meeting was attended to network and provide information and exchange advice with the Italian NRL regarding analysis of brominated flame retardants in June 2017.
- Contact with the EURL-FCM included discussions regarding the ceramics ILC in June 2017.
- The Steering Group meeting held on 19th July 2017 was an opportunity for a multi-way exchange of EURL-NRL-OCL-FSA-FSS information. FSA and FSS colleagues from the policy teams for contaminants were involved in the meeting to update on European developments on legislation. There was also contact with FSA Contaminants colleagues to establish when ergot alkaloid data would be required to help support discussions about European legislation.
- A kitchenware task force meeting organised by the EURL was attended. The aim of the task force is the preparation of a revision of the Guidelines on Testing Conditions for articles in contact with foodstuffs (with a focus on Kitchenware) that were published in 2009. This was the second meeting of the task force and the discussions concentrated on the selection to the articles that fall within the scope of the guidance document as well as the category into which they fall (aligned with the food contact conditions, e.g. time and temperature). PlasticsEurope also attended the meeting and gave an overview of a guidance document that they are preparing aimed at the manufacturers of the intermediates (e.g. resins) used in the manufacture of repeat use articles and the importance of sharing this data to support the end users demonstration of compliance of the material and article with the legislation.
- An email requesting clarification on the calculation of upper and lower bound values for samples analysed in the UK TDS study was received from the FSA in August 2017. A reply was sent explaining how the LOD, LOQ and Reporting limits used in the survey had been calculated and giving options on how to use these values to calculate upper and lower bound results.
- Several NRLs were contacted to ask if they could participate in the Fera run MVS for ergot alkaloids. Two NRLs agreed to take part.
- A query was received from a UK OCL regarding Commission Regulation (EC) 152/2009 and its subsequent amendments, specifically as to whether Recovery Correction was required for dioxin and PCB analysis. The NRL replied that recovery correction was mandatory for dioxins and PCBs, and a web-link to the latest consolidated version of the Commission Regulation with all current amendments included was sent.
- Discussions were held in September 2017 with NRL-Belgium following their presentation at Packaging Conference in Baveno, Italy in regarding their work on migration in to Tenax and pros and cons of using Tenax films.

- The final EURL NRL Mycotoxins Workshop to be held at JRC Geel took place on the 17th to 18th October 2017. JRC Geel ceased to be the EURL on 31st December 2017. From 1st January 2018, RIKILT (currently NRL for the Netherlands) became the EURL for Mycotoxins and Plant Toxins. The meeting covered the results of four proficiency tests (aflatoxins in peanut meal, deoxynivalenol in cereals, ergot alkaloids in cereals and multimycotoxins in cereals that covered both regulated and emerging mycotoxins). An update on legislation issues for mycotoxins and plant toxins was given by Frans Verstraete, and RIKILT presented some initial plans for the work programme for 2018. There was also a short presentation covering the achievements of the network, and improvements to analysis during the 10 years the JRC Geel had served as EURL.
- CEN TC 275 WG5 met on 26th and 27th October 2017 to review progress of the current mandated projects. The meeting was a final document approval / proof reading and alignment meeting. Several documents were completed and were progressed to full CEN enquiry. The *Alternaria* method validation study will be repeated and take place in 2018. The end date of the overall Mandate will be extended.
- In October 2017, Rainer Malisch (EURL) emailed as a follow up to the EURL/NRL Dioxins Workshop in May 2017 (Prague) and as part of the planned extension of EURL scope to include halogenated POPs from 2018. PTs for PBDEs and HBCDD will be additionally offered in 2018; as well as optional chlorinated paraffins as part of the tests for method development in cooperation with the corresponding core working group.
- A questionnaire (Questionnaire_NRLs-Overview_Halogenated_POPs-Oct2017) was circulated by the dioxins EURL to gather information on NRLs capabilities to analyse halogenated POPs (analysis, method development, planned PT participation). A completed questionnaire was returned.
- The NRL received a request from the Dioxins NRL in Ireland for advice regarding methods for analysis of polybrominated diphenyl ethers in food and feed.
- A training workshop on 'Interpretation of chromatograms from the analysis of packaging and foods for mineral oils' was attended by the NRL from 25th to 26th October 2017.
- An NRL/EURL-FCM Plenary meeting in Ispra, Italy was attended from 24th to 25th October 2017.
- The APA Training Committee meeting at PASS, Wolverhampton on 15th November 2017 was attended. There was a discussion about training needs, it was agreed to hold a one day NRL Workshop on Processing contaminants for PAs as this is a new area for many of the OCLs, and also part of the expanded remit of the PAH NRL. A further training day on sampling to be organised in conjunction with the APA Training committee with input from LAs was discussed. NRL leads will join the Association of Public Analysts as Associate Members from January 2018, this will allow better engagement with OCLs especially via the APA website. The NRL will give presentations at the APA MChemA residential training course at Reading University in April 2018. This course will be offered to a wider audience, e.g. LA staff, to help improve their understanding of food law issues. Fera reiterated the offer to visit any OCLs that wished for one to one training or discussion was always

open, or if OCLs prefer they are able to request specific training at Fera on a one to one basis.

- The FSA policy unit requested advice in November 2017 on the analysis of pyrrolizidine alkaloids and ergot alkaloids, and information about the UK OCL capacity / capability to carry out these analyses ahead of an EU Working Group meeting to discuss setting maximum limits for these compounds. Information was provided.
- One OCL made an enquiry and asked for advice about mycotoxins after being alerted about the possible use of mouldy food in alcoholic beverage production. Advice on the possible moulds and mycotoxins that could be present, as well as their likely stability was provided.
- The NRL received a Technical Specification for comment in November 2017, sent via the BSI Committee entitled "Animal feeding stuffs: Methods of sampling and analysis - Performance criteria for single laboratory validated and ring-trial validated methods of analysis for the determination of heavy metals". The NRL completed a review of FprCEN/TS 17174. There were no obvious changes required.
- The NRL attended the Workshop of the Core Working Group on Chlorinated Paraffins (CPs) on 14th November 2017. Topics included CPs breakdown, analytical analysis including instrumentation, standards, internal standards and quantification. Preliminary ILC results were presented.
- The Core Working Group on Congener Patterns was attended on 30th November 2017.
- The Dioxins EURL Workshop on the 28th to 29th November 2017 in Freiburg was attended. During the EURL Workshop, the EURL announced their intention to create another two CWGs, one on the 'Analysis of BFRs' and one for the 'Analysis of PFAS (Per- and Polyfluoroalkyl Substances)' both of which Fera expressed interest in participating in.
- The NRL sent advice to the NRL for Ireland regarding the methods of analysis of BFRs (specifically PBDEs and HBCDDs) in November 2017.
- The NRL attended a training session provided by the Dioxins EURL on Measurement Uncertainty Methods on 29th November 2017 in Freiburg.
- In December 2017, all Fera NRL staff were invited to join the Association of Public Analysts as Associate Members. The paperwork and application forms were circulated to all Fera staff. This allows Fera NRL staff access to the APA website Members Section and allows closer links between the NRLs and OCLs/APA.
- On 22nd March 2018, a one day training NRL Workshop on Processing Contaminants was held at Fera. It covered changes in regulations and gave information on processing contaminants such as 3MCPD and esters, acrylamide and furan. The new EURL-PC (DTU) was contacted and a representative participated in the Workshop and gave a presentation on the forward look for the EURL. FSA, FSS and seven OCL staff participated to produce a worthwhile Workshop. LGC sent a representative as the Government Chemist referee function.
- Following a request from the FSA in January 2018, advice was sought and passed on from the EURL and NRL-Germany on the migration and repeat use testing for nitrosatable substance release from rubber teats.

- Emma Bradley, Fera NRL, was invited to participate in the Council of Europe (CoE) ad hoc working group on printing inks. As the European Commission have printing ink regulation high on their agenda involvement in this group will ensure that the UK is well informed of the CoE developments which are expected to be fed up to the Commission.
- Fera NRL received the "Draft Technical Report for the Workshop of the EURL/NRL Network held on 28th to 29th November 2017 in Freiburg" and this was forwarded to the FSA.
- Three representatives from the FSA FCM group visited Fera for training on FCM migration methods in February 2018. The day included discussions on the work the Packaging and MS Solutions team carry out at Fera and how we carry out migration experiments in practice. There was also a tour of the facilities and discussion on the different analytical instrumentation, approaches to data processing and the differences between overall migration, specific migration and NIAS.
- In February 2018 there was contact with NRL-Germany to ask their advice and see if they have any experience in testing silicone FCMs. They provided the relevant BfR recommendations and some interesting literature references.
- Susan MacDonald was invited to speak on Contaminants at the MChemA training course in April 2018.
- An OCL requested a further supply of NRL semi reference material NRL03 wheat flour and this was dispatched to the OCL in March 2018.
- In March 2018, the NRL received a questionnaire from the EURL asking on four spreadsheets with regard to competence for (1) PCDD/PCDF, dl-PCBs and ndl-PCBs, (2) brominated POPs, (3) fluorinated POPs, (4) chlorinated POPs others than PCDD/PCDF and PCBs. The EURLs will publish the lists of NRLs designated by the Member States in accordance with Article 100(1) at the homepage of DG SANTE by 29th April 2018 using data from the completed forms.
- The NRL has registered to attend the combined meeting for the "Dioxin Patterns" and "Brominated Flame Retardants" core working groups to be held on the 19th to 20th June 2018 in Athens, Greece, as the UK official representative.
- In March 2018 the NRL attended a meeting of the kitchenware test conditions task force.
- Provision of advice to NRL Sweden regarding method validation for photoinitiators was given in March 2018.

11. Objective 03: Production of standard operating procedures, codes of practice and guidance documents

With the agreement of the FSA Fera will contribute to the preparation of SOPs, codes of practice and guidance documents prepared within the EURL-NRL network and will share the information with the FSA, OCLs and other relevant laboratories.

Task 1. *Contribute to the development of SOPs, relevant codes of practice and guidance documents for use by OCLs and other relevant laboratories, as requested by the FSA.*

Fera continues to share appropriately, SOPs generated by Fera when requested by OCLs. Any new (non-confidential) SOPs, codes of practice and guidance obtained from the EURL will be shared. Fera works closely with the EURL to contribute to these developments and to ensure that OCLs and other relevant laboratories are kept up-to-date.

A list of relevant tasks carried out is given below:

- Advised a UK OCL on accreditation status/changes for overall migration testing based on new food simulants.
- A list of participants was requested for the ergot alkaloids PT to try to identify laboratories that might participate in the Fera MVS for ergot alkaloids for CEN TC275 WG5.
- Discussed the possibility of extension to scope of current UKAS accredited method for aqueous overall migration to cover new simulants with OCLs at the Steering Group Meeting 19th July 2017.
- NRL metals continued to work on method development and validation of an in-house mono-methyl mercury analytical method. In March 2018 a homogeneity run was successfully completed on a canned fish material and produced a set of very encouraging data.
- CEN TC275/WG5 met on 20th and 21st February 2018 in Delft. The documents for Project 1 Ergot alkaloids determination, and Project 6 Aflatoxins in spices, that are led by Fera, were thoroughly discussed and reviewed at the meeting. Further amendments were required and were completed after the meeting. The documents will be reviewed again at the next meeting, then sent for CEN enquiry.
- CEN TC327/WG5 met on 22nd February 2018. Several methods were reviewed in preparation for submission for CEN enquiry. A report on the study for gossypol was presented. The trial was not completely successful and part of it (for compound animal feed) will be repeated. A study for glucosinolates was presented, it is planned for later this year. The pre-trial results for pyrrolizidine alkaloids were presented, as was some additional data for an assessment of conversion of pyrrolizidine alkaloids N-oxides to the parent toxins. This was done to assess if it is

feasible to use this method, meaning less analytical standards would be required. It was not conclusively successful but will be retained as an optional element for the final method validation study. Fera registered an interest to participate in the full study and received registration details from the project leader at BfR.

12. Objective 04: Compliance assessment via audits and ring trials

Task 1. *Ensure consistency and quality of testing approaches applied by UK OCLs and other relevant laboratories, including advising on corrective action following adverse reports on OCLs from UKAS.*

This is addressed by ensuring that OCLs are familiar with the best practices and methodology support is provided with any known difficulties in application explained. Training is offered to OCLs that have little experience in a method. Performance of the OCLs in PTs is compiled and training offered in any areas for which performance is either questionable or unsatisfactory; root cause analysis outcomes are requested.

With the agreement of the FSA, Fera will continue to participate in the EURL organised inter-laboratory comparison exercises and method development/method evaluation/method validation studies.

Task 2. *Plan proficiency tests for UK OCLs and other relevant laboratories as appropriate (taking into account the number of relevant laboratories), analysing and evaluating the outcome, informing the FSA and OCLs of the results and advising on further action.*

and

Task 3. *Co-ordinate the participation of UK OCLs and other relevant laboratories in EURL method validation studies and other initiatives, informing the FSA, EURL and OCLs of the results and advising on further action.*

Fera has supported OCL participation in EURL PTs historically and where a need has been identified participation in other PTs has also been encouraged.

Task 4. *Participate in proficiency tests (PTs) and method validation studies organised by the EURL, informing the FSA of the results and implementing any corrective measures required.*

Fera have and continue to participate in one or two EURL organised ILCs/PTs per function per year since 2008 plus additional schemes such as FAPAS®. Fera has procedures in place to investigate and to rectify unsatisfactory performance in PT schemes as well as trend analysis of all z-scores to look for e.g. systematic bias or drift. Several of the EURLs also regularly carry out method validation studies and Fera participates where appropriate.

Task 5. *Co-ordinate training exercises to promote best laboratory practice in respect of analysis.*

Training continues to be carried out on request, either at Fera, or in the individual OCL laboratories. Training at Fera allows many OCLs to be trained at the same time giving economies of scale.

Fera staff have in the past and continue to contribute to the MChemA training course and all presentations given and other materials will be made available both on the APA training website and on the Fera NRL website. Fera staff have also been invited to present at the APA annual conference.

A list of relevant tasks carried out is given below:

- Participation in EURL PT for DON in cereals 2017 Fera had excellent z-scores for all test materials, as well as excellent zeta-scores showing our measurement uncertainty calculation is within expected parameters. In addition, Fera correctly assigned 'compliant' or 'non-compliant' with respect to Regulatory limits for all the test samples.
- Participation in EURL PT on Determination of PCDD/Fs and PCBs in Palm Fatty Acid Distillate 2017 [EURL-PT-DP_1701-PF]. In March 2018 a certificate of participation was received.
- Following on from successful participation in the EURL gossypol pretrial, the main trial will go ahead; planned for May 2018. The results of this study were reported to RIKILT. Fera did not detect residues in the feed samples but did in the cotton meal. This was common among participants, RIKILT carried out further investigation into the cause of this. A second MVS will take place as the results from the animal feed samples in the first study were not satisfactory. This will take place in 2018.
- Interlaboratory comparison study organised by the EURL PAH on the determination of the 4 marker PAHs coconut oil.
- Participated in EURL PT HM-24.
- Participated in EURL PT HM-25 Complete Fish Feed.
- Fera participated in an additional EURL PT for pyrrolizidine alkaloids in tea and honey. The results were not very good overall, honey results were better than tea. Only 4 pyrrolizidine alkaloids were present in the herbal tea, and for one compound only 6/26 laboratories obtained satisfactory z-scores. There is clearly still a lot of work to be done to improve analytical methodology for pyrrolizidine alkaloids. The report was sent to the FSA.
- Participated in EURL PT Acrylamide in Potato Chips: samples were received, analysed and data submitted.
- Participated in EURL-FCM ILC01 2017 - Bisphenol A (BPA) from can coatings. Five cans were received for migration analysis, together with two solutions for BPA analysis (a food simulant D1 solution spiked with BPA and a migration solution spiked with BPA). The NRL was asked to measure the temperature of the oven during the experiments to add information to the on-going work on temperature control during migration studies. Results were submitted in August 2017.
- One sample of rye flour was received for the EURL Mycotoxins PT along with a calibration solution supplied by the EURL that they requested be used for quantification. Samples were analysed, and results were reported in June 2017. Z-scores were issued for the ine/inine pair sum, so 6 z-scores were issued. Fera had

completely satisfactory results for all z-scores, 20/38 labs achieved this. In the other cases labs had questionable or unsatisfactory results for some pairs, or in some instances did not report results so z-scores could not be assigned for some analyte pairs.

- Fera NRL participated in the gossypol MVS run by RIKILT as part of the Mandates M521, 522 and 523 under CEN TC327 WG5 animal feed methods of analysis.
- Participated in EURL Interlaboratory Scheme for analysis of chlorinated paraffins in coconut oil. Results (sum total of short chained and medium chained chlorinated paraffins) were submitted in September 2017 and October 2017 to allow submission of results to separate short chain from medium chain chlorinated paraffins. In December 2017, the EURL requested that aliquots of the analytical standard solution used in the analysis of Chlorinated Paraffins during the ILC should be submitted to them for testing.
- The draft report was received for the 18th round of the Interlaboratory Comparison on POPs in Food (2017). Fera performed well in this exercise.
- Participation in the EURL proficiency test on the determination of PCDD/Fs, PCBs, PBDEs and HBCDDs in Liver of Cattle 2017. In February 2018, the final report and a certificate of participation were received.
- Email correspondence was sent to two UK OCLs in relation to EURL PAH PT 2016 - Smoked black pepper, due to questionable performance data. Details of their methods / root cause analysis were requested in August 2017.
- Limited ILC STANPAHs (8 restricted PAHs under REACH (entry 50 of Annex XVII) from plastic and rubber materials into 20% ethanol. This ILC was organised by JRC within the frame of the STANPAHs project. Fera attended a day training event held at JRC Ispra (Italy) on the 19th October 2017. The training covered all critical steps from the standard operating procedure developed at JRC to determine the migration of the 8 restricted PAHs from rubber and plastic materials into 20% ethanol.
- The Alternaria MVS that Fera participated in produced performance data that were outside the target threshold ($RSD_R < 22\%$). There were also some issues with the method. The JRC (project leaders under Mandate M520) plan to run another study using a modified method in 2018.
- The NRL registered in January 2018 to participate in a MVS for Pentachlorophenol run by RIKILT. Samples were received, and work was undertaken to check LC-MS sensitivity adequacy in February 2018. Permission was sought and received from the organiser to make minor changes to the protocol regarding the LC-MS parameters. In March 2018, some preliminary extraction work and instrument analysis was completed to demonstrate that the method works and to establish a 'blank' material which can be used for QA purposes for this study.
- Fera NRL received an invitation to participate in a PT organised by the EURL for Dioxins on the determination of PCDD/Fs, dioxin-like PCBs and other dioxin-like compounds in oil by bioanalytical screening methods in 2018. Fera does not have facilities to perform bioanalytical screening methods so did not participate in this.
- The EURL mycotoxins and plant toxins emailed to inform NRLs that the PTs for 2018 would be on deoxynivalenol, 3-acetyl-deoxynivalenol, 15-acetyl-deoxynivalenol and deoxynivalenol-3-glucoside in the cereal matrices wheat and

maize (food & feed). They enquired about laboratory capability for these toxins and requested LOQ information. This was returned to the EURL.

- Fera registered to participate in EURL PT feed/DIF PT 2018 for dioxins, PCBs, PBDEs and HBCDs in Soybean (Feed) and the sample was received in February 2018.
- An invitation to participate in a method validation study for pyrrolizidine alkaloids in animal feed was received from BfR via CEN TC327 WG5 in March 2018. This has been completed and returned, the date was not set but it anticipated to be later in 2018.
- Two new PTs were announced for 2018: FCM-18-01 - Determination of oligomers in food simulant D1 and FCM-18-02 - Determination of the mass fraction of total Al, Ni, Sb and Zn in food simulant B. Fera NRL registered to participate.

13. Objective 05: Co-ordination within the UK of EURL initiatives

Task 1. *Co-ordinate the implementation of EURL recommendations related to the standardisation of testing methods across the EU.*

All information and documentation received from the EURL will be provided to the FSA and, where appropriate, to the OCLs and other relevant laboratories. Any EURL recommendations have been fed back promptly to the FSA, OCLs and other relevant laboratories via the NRL website and any specific issues will be disseminated by e-mail to the OCL distribution list.

A list of relevant tasks carried out is given below:

- Notification was received from the EURLs for mycotoxins and dioxins and PCBs of the publication of the new EU Official Control Regulations. This was circulated to all OCLs in May 2018.
- A Steering Group Meeting was held on 19th July 2017 at Fera, York. Several OCLs were represented. The minutes, along with a copy of the slides that were presented, were circulated after the meeting. There were some suggestions of ideas for training, e.g. how to support the OCLs with training on sampling so they can pass this on to sampling officers. Other suggestions were analysis of methyl mercury, ergot alkaloids and tropane alkaloids, possibly linked with a subsidised participation in a FAPAS PT round to check the effectiveness of any training given.
- Information about two PTs being organised by RIKILT was sent to UK OCLs, as well as information about an EURL PT for fipronil.
- An invitation to OCLs to participate in EURL deoxynivalenol and ergot alkaloid PTs was circulated.
- OCLs were invited to participate in EURL-FCM ILC01 2017 BPA Can Coatings and 3 OCLs accepted. OCL participation was followed up with responses received from 2 OCLs. Subsequently one OCL announced it was closing so will not be participating. The other did not submit results as they had analytical issues. Fera FCM NRL offered assistance if the OCL needed it.
- Invitations were sent out to OCLs in the UK in January 2018 regarding participation in the upcoming EURL dioxin PT schemes (EURL PT Soybean Meal 2018 - PCDD/Fs, PCBs, PBDEs, HBCDDs and the determination of PCDD/Fs, dioxin-like PCBs and other dioxin-like compounds in oil by bioanalytical screening methods in 2018).
- Two FCM PTs were announced for 2018: FCM-18-01 - Determination of oligomers in food simulant D1 and FCM-18-02 - Determination of the mass fraction of total Al, Ni, Sb and Zn in food simulant B. UK OCLs were emailed in March 2018 to invite them to participate, with no charge to OCLs.

14. Objective 06: Communication of results and data use

All results and work carried out will be reported to the FSA at regular intervals. Annual reports will be published on the Fera NRL website.

Fera will:

- a) Ensure that the FSA receives regular updates of any developments related to the core functions of the NRL
- b) Notify the FSA immediately by email of any deviations
- c) Notify the FSA immediately by email of any unusual occurrences resulting from any of the core functions of the NRL.
- d) Provide the Fera annual work programme linked to the EURL work programme (at the beginning of each year).
- e) Provide an internal report of meetings with other organisations (such as Official Control Laboratories, and the EURLs) within 10 working days.
- f) Fera will keep the NRL website up to date with developments, relevant information (especially to the OCLs) and the work of the NRL

A list of relevant tasks carried out is given below:

- A request was received from the FSA to compile ergot alkaloid data obtained from a cereal contaminants monitoring project in the UK into EFSA SSD format and submit it to EFSA to help support UK negotiating position in forthcoming discussions on ergot alkaloid legislation in autumn 2017. This was completed and data submitted to EFSA.
- The NRL converted chloroparaffin data from project C01039 into EFSA SSD format as requested by the FSA.

15. Deliverables

Fera has provided the FSA with monthly NRL Activity Logs.

Fera has provided meeting notes, and official reports and presentations from EURL/NRL Workshops to the FSA.

Fera has provided meeting notes, official reports and documents and, where available presentations, from EURL Working Groups, Task Forces and Adhoc committees in which it participates.

Fera provided a report, including participant feedback and the presentations from the NRL-PC Training Workshop on Processing Contaminants.

Fera provided a meeting report and copies of the presentations from the Steering Group Meeting.

Fera has provided meeting notes from its attendance at CEN Working Groups, and has provided active assistance to the FSA in reviewing, commenting and voting on documents from CEN / BSI.

An Annual Report will be published on the Fera NRL website thereby meeting the FSA openness and transparency commitments.

Additionally, Fera provides the individual respective EURL work programmes (when published) and a corresponding Fera NRL work programme at the beginning of each year.