



EURL CPS

European Union Reference Laboratory for
Coagulase Positive Staphylococci

Maisons-Alfort laboratory for
food safety

2016-2017 Work Programme of the European Union Reference Laboratory for Coagulase Positive Staphylococci

Version 3 – 17/11/2015

INTRODUCTION

In May 2006, the Laboratory for Food Safety, of ANSES (French agency for food, environmental and occupational health & safety), located in Maisons-Alfort, has been nominated European Union Reference Laboratory for Coagulase Positive Staphylococci (EURL CPS), including *Staphylococcus aureus* and their toxins (see Regulation 776/2006).

The EURL CPS foresees to undertake the following actions in 2016-2017, according to the actions planned at the 9th Workshop of the National Reference Laboratories (NRLs) (28-29 May 2015).

Scientific & technical activities of EURL CPS are mainly undertaken, in the laboratory, by the Staphylococci Team of the Staphylococci, *Bacillus*, Clostridia & Milk (SBCL) Unit.

Most of these activities aim at implementing, from an analytical point of view, the Regulation (EC) N° 2073/2005 on microbiological criteria for foodstuffs, modified by the Regulation 1441/2007, which includes in particular:

- 5 process hygiene criteria on CPS, defining a quantitative limit in:
 - cheeses made from raw milk or from heat-treated milk, ripened cheeses, and unripened soft cheeses,
 - milk/whey powder,
 - cooked crustaceans and molluscan shellfish.
- 1 food safety criterion on staphylococcal enterotoxins (SEs), requiring absence in 25 g in cheeses, milk/whey powder, to be tested when CPS enumeration is higher than 10^5 cfu/g when testing the above mentioned criteria on CPS.

This work program is scheduled on the basis of a normal 2-year activity, assuming that the renovation of the laboratory premises, planned in 2016, will enable to implement all the experimental activities planned in 2016-2017. In the case where the work programme would need to be modified, EURL CPS would contact DG SANTE to discuss and agree on such modification.

NB 1: In brackets under each item, the scheduled duration of the action is indicated: either annual (limited to 2016-2017), either multi-annual (on-going programme on several years).

NB2: The activities are gathered according to the tasks allocated to EURLs, defined in EC Regulation 882/2004 on official controls (Article 32, paragraph 1 on EURLs for feed and food):

- *Section 1: Dispatch of methods and proficiency testing trials for the NRLs,*
- *Section 2: Analytical development,*
- *Section 3: NRL training and support to the NRLs,*
- *Section 4: Technical and scientific assistance to the European Commission.*

0. GENERAL ASPECTS

0.1 GENERAL COORDINATION (MUTI-ANNUAL)

General coordination by EURL management team, administrative department (SAG) of the NRL network: dispatch of circular letters and documents, coordination of the scientific and technical support to NRLs ...

Relations with DG SANTE, coordination of the scientific and technical advice to DG SANTE, management of annual contract with DG SANTE: annual budgets and work programmes, annual technical and financial reports.

In-house follow-up of EURL activities, expenses, support to laboratory units involved in EURL activities.

Missions:

2 missions at DG SANTE (Brussels, 1 day each).

0.2 WORKSHOP OF THE NRLS (ANNUAL)

EURL CPS will organise the 10th Workshops of the NRLs in 2016, of general scope, and the 11th Workshop in 2017 tentatively dedicated to a specific topic (to be determined in 2016 with NRLs).

These workshops will be organised at EURL CPS, Maisons-Alfort. Three experts would be invited at each workshop, as well as NRLs from third countries.

1 DISPATCH OF METHODS AND PROFICIENCY TESTING TRIALS

1.1 PT TRIALS STAPHYLOCOCCI ENUMERATION IN FOOD

Objective

The inter-laboratory proficiency testing (PT) trials organised by EURL for the NRLs aim at evaluating the ability of the NRLs to apply satisfactorily the reference methods EN ISO 6888-1&2 prescribed by EC Regulation 2073/2005 for CPS enumeration in food.

1.1.1 2016 PT TRIAL: STAPHYLOCOCCI ENUMERATION

EURL CPS will organize in 2016 an inter-laboratory PT trial on CPS enumeration in shelled cooked prawns as sample material, by one or both reference methods EN ISO 6888-1 & 2.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): b.

1.1.2 2017 PT TRIAL: STAPHYLOCOCCI ENUMERATION

EURL CPS will organize in 2017 an inter-laboratory PT trial on CPS enumeration in milk product as sample material, by one or both reference methods EN ISO 6888-1 & 2.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): b.

1.2 PT TRIALS DETECTION OF STAPHYLOCOCCAL ENTEROTOXINS IN FOOD

Objective

The inter-laboratory PT trials organised by EURL for the NRLs aim at evaluating the ability of the NRLs to apply satisfactorily the EURL CPS European Screening Method (ESM) prescribed by EC Regulation 2073/2005 for SE detection in food.

Equipment

1 lap-top computer

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): b

1.2.1 2016 PT TRIAL: STAPHYLOCOCCAL ENTEROTOXIN DETECTION

EURL CPS will organize one PT trial on SE detection in food matrices reported to be involved in staphylococcal food-borne outbreaks in Europe, using the applicable ESM version.

1.2.2 2017 PT TRIAL: STAPHYLOCOCCAL ENTEROTOXIN DETECTION

EURL CPS will organize one PT trial on SE detection in food matrices reported to be involved in staphylococcal food-borne outbreaks in Europe, using the applicable ESM version.

1.3 PRODUCTION OF “NATURALLY” CONTAMINATED CHEESES FOR PT TRIALS (MULTI-ANNUAL)

Duration: 2015 – expected end: 2018

Objective

EURL CPS is studying food matrices to be used to prepare samples for proficiency testing (PT) trials on CPS enumeration for the NRL network. The ability of NRLs to implement the Standard reference methods for CPS enumeration (EN ISO 6888-1, 2) may vary depending on the type of food matrices analysed and the corresponding sample preparation step. Up to now, EURL has used several types of food samples: either artificially contaminated samples or naturally contaminated samples that were stored frozen. However, the ability to enumerate CPS on selective agars can be different (and easier in general) when artificially contaminated samples are used for PT trials, compared to naturally contaminated foods which correspond to samples that are received and analysed by NRLs in routine.

Therefore, EURL CPS investigates the interest of the production, in an experimental plant, of “naturally” contaminated food samples to be used for PT trials. These “naturally” contaminated cheeses would be produced in a pilot dairy plant using milk formerly inoculated with staphylococcal strains. The aim is to study the distribution of CPS (see below) and of staphylococcal enterotoxins (SEs) (see section 1.2.2.) in the cheeses and to assess the suitability of these cheeses as sample materials for PT trials. In addition, EURL CPS will study the behavior of CPS within the cheese matrix and during the cheese making process, in order to obtain useful data on growth, viability and distribution of CPS as well as on enterotoxin gene expression over time.

This project is conducted in collaboration with IT-NRL (IZSTO), which has a pilot dairy plant.

Expected output and time of delivery

In 2015, EURL CPS initiated the collaboration with IZSTO to produce “naturally” contaminated cheeses. A pilot study was initiated aiming (i) at characterizing and selecting the most suited CPS strains for growth and enterotoxin production in cheese, and (ii) at producing a preliminary batch of fresh cheeses using milk inoculated with the selected CPS strains.

In 2016 and 2017, new batches of fresh cheeses will be produced by IZTO. Homogeneity and stability of the cheese samples will be studied by EURL, as these two parameters are a prerequisite for the organization of PT trials. Different portions of the cheeses (core *versus* periphery) will then be tested by EURL to study CPS and SE distribution within the cheeses. Since previous studies showed that CPS enumeration did not correlate necessarily with SE levels detected in cheeses, EURL CPS will study CPS viability and expression of *se* genes and

compare them to SE amounts quantified in the cheeses. EURL would thus obtain interesting and complementary physiological data related to SE biosynthesis. These data will be useful for the expertise of the NRLs network regarding the best sub-sampling strategy to be used when receiving cheeses for CPS and SE analysis.

Depending on the results obtained with these fresh cheeses, other types of technologies could be tested, such as processes used for the production of soft fresh cheeses (weight of 1-5 kg) and ripened traditional cylindrical flattened cheese (weight of 8-12 kg).

Sub-contracting

Shipment of samples to EURL from IT-NRL. Subcontracting will also be necessary for purchase of labelled DNA probes.

Missions

4 missions at IZSTO (Torino, IT, 2 days each).

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): b & f.

2 ANALYTICAL DEVELOPMENT

2.1 STAPHYLOCOCCI DETECTION/ENUMERATION IN FOOD

2.1.1 MEASUREMENT UNCERTAINTY: IMPACT OF SUB-SAMPLING OF THE TEST PORTION (MULTI-ANNUAL)

Duration: 2010-2016

Objective

To conduct analyses for own checks and official controls related to the quantitative criteria on CPS defined in EC Regulation 2073/2005 modified (criteria 2.2.3, 2.2.4, 2.2.5, 2.2.7 & 2.4.1 in Annex I, Chapter 2), it is important to know and to control the measurement uncertainty (MU) associated to the analytical results.

In the series of Standards EN ISO 6887-2 to 5 on the preparation of test samples for microbiological analyses of different types of food matrices, it is not specified how to sub-sample the test portion within the “laboratory sample” (i.e. sample that is sent to the laboratory). This stage is however recognized as a major source of MU, in particular for solid matrices characterized by heterogeneous bacterial contaminations, such as matured cheeses.

The purpose of this study is to harmonize the procedure of sub-sampling of the test portion within solid food matrices, such as cheeses, thus (i) reducing the overall MU, and (ii) better ensuring that the contamination of a sample is correctly reflected in the test portion taken and analyzed.

The outcome of this study would be transferred to ISO/TC 34/SC 9, in charge of standardization in microbiology of the food chain:

- To provide data for the revision of ISO/TS 19036 (MU estimation for quantitative determinations), and to quantify MU part linked to sub-sampling of test portions for solid matrices,
- To revise EN ISO 6887 series to better define the procedure of test portion sub-sampling in solid matrices.

Expected output and time of delivery

In 2015, EURL CPS coordinated, in conjunction with EURL *Lm*, a collaborative study on the impact of the test portion size (25 g versus 10 g) on MU associated to CPS enumeration. The participation of volunteering NRLs and national official laboratories to this study was requested. These laboratories were asked to perform analyses from 25g and 10g test portions of naturally contaminated food samples. In addition, EURL analysed some naturally contaminated cheeses provided by the Italian NRL.

In 2016, EURL CPS will collect the results from the participating laboratories. It will analyse these results and assess the impact of test portion size on MU. EURL will draft a report and dispatch it to the NRLs network.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): a & c.

2.2 DETECTION OF STAPHYLOCOCCAL ENTEROTOXINS IN FOOD

2.2.1 USE OF MASS SPECTROMETRY FOR CHARACTERISATION AND QUANTIFICATION OF STAPHYLOCOCCAL ENTEROTOXINS IN FOOD

Duration: 2015-2018

Objective

The current EURL CPS confirmatory method is ELISA-based. The situation where both screening and confirmatory methods are based on the same principle is not satisfactory, with a risk of bias in the confirmation of screening results. In order to avoid this risk, EURL CPS previously conducted a collaborative project with CEA (French Alternative Energies and Atomic Energy Commission) to investigate an alternative tool to immunology, that is quantitative mass spectrometry (MS), in order to confirm and quantify SEs presence in food matrices.

Between 2011 and 2012, the Protein Standards Absolute Quantification (PSAQs) for the major SEs (types SEA, SEB, SEC, SED, SEE and SEG) were correctly transferred to EURL CPS. However, the development of a multiplex quantitative MS methodology using these PSAQs was not fully achieved due to the withdrawal of this project from EURL work program in 2013.

Currently an MS-based method for SEs detection and quantification is being developed in the BE and SE NRLs. The objective of the EURL study is to continue the development of a MS-based method for SE confirmation and quantification, in collaboration with these two NRLs.

Expected output and time of delivery

In 2016 and 2017, EURL will implement the new MS apparatus to be purchased at the end of 2015. The new MS apparatus which has been selected is coupled with liquid chromatography (UHPLC). Training on the use of the new MS apparatus will be scheduled in 2016.

EURL will perform first tests in order to calibrate and optimize the new MS apparatus using SE standard solutions.

EURL will also implement the SE method developed in collaboration with Swedish and Belgian NRLs. Before the MS detection step, SE should be extracted using dialysis concentration, and then purified using an enzymatic digestion method. This purification step is crucial for a correct MS detection.

Once the MS method will be calibrated with the standard solutions, the objective of the EURL study will be to implement and to optimize the extraction and purification steps on different food matrices spiked with SE at the laboratory.

Equipment

High resolution mass spectrometer coupled with UPLC.

Missions

1 mission of 4 days at BE-NRL (ISP, Brussels).

Subcontracting

Transportation of samples between EURL and NRLs will be subcontracted.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): c.

2.2.2 ENLARGEMENT OF SCOPE OF THE METHODS FOR THE DETECTION AND QUANTIFICATION OF STAPHYLOCOCCAL ENTEROTOXINS TYPES SEG, SEH, SEI IN FOOD

Duration: 2016-2018

Objective

The European screening method (ESM) of EURL CPS is cited as a reference method in the criterion 1.21 for SEs by EC Regulation 2073/2005 modified (Annex I, Chapter 1). This method is used for own checks and official controls in the EU Member States. It includes an initial step of extraction/concentration of SEs by dialysis concentration, followed by a detection step. Currently, this detection step is based on an immuno-enzymatic reaction targeting five enterotoxin types: SEA to SEE. EURL CPS has also developed a method to quantify SE types SEA to SEE in food.

Due to the lack of suitable antibodies, no method is available for the detection/quantification of enterotoxin types SEG, SEH and SEI, which are yet known to be at risk for consumers. As discussed at EURL/NRLs workshops and as reported by EFSA, several food-borne outbreaks in Europe have shown a typical SE symptomatology but no enterotoxins (types SEA to SEE) could be detected using the available methods. This highlights the need to develop detection tools targeting SEG, SEH, SEI. This need is further supported by epidemiological data showing that genes *seg*, *seh* and *sei* are frequently detected in *S. aureus* isolates contaminating food products associated to staphylococcal food-poisoning outbreaks (SFPOs) but for which none of the classical enterotoxins SEA-SEE were detected.

CEA (French Alternative Energies and Atomic Energy Commission) will develop an ELISA-based technique allowing the quantification of SEG, SEH and SEI, that could be transferred to first EURL, then NRLs.

In addition, certain kit manufacturers are developing or intend to develop and commercialize new immuno-enzymatic kits allowing the simultaneous detection of SEG, SEH and SEI.

Expected output and time of delivery

In 2016 and 2017, EURL will perform preliminary assays using antibodies produced by CEA and using kits provided by manufacturers.

CEA and kit manufacturers will respectively evaluate the quantitative and qualitative methods:

- (i) on food samples supplemented with SEG, SEH and SEI;
- (ii) on naturally contaminated food products to be provided by EURL, which obtained them from own checks, cheese batches produced at IT-NRL (see 1.3) or SFPO investigations.

EURL would transmit the outcome of this study to CEN/TC 275/WG 6 and ISO/TC 34/SC 9 as to enlarge the scope of the draft Standard method EN ISO 19020 to the detection of SEG, H, I types. Most probably, this would be done after the finalization of the first version of the Standard, and its scope would be enlarged through an amendment to EN ISO 19020.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): c.

2.3 CHARACTERIZATION AND TYPING OF STAPHYLOCOCCI STRAINS, EPIDEMIOSURVEILLANCE

2.3.1 MOLECULAR ALTERNATIVE METHOD TO PFGE: WHOLE GENOME SEQUENCING (MULTI-ANNUAL)

Duration: 2016– expected end: not yet defined

Objective

Bacterial whole genome sequencing (WGS) is expected to become the method of choice for epidemiological typing, in the future.

At the 2015 workshop, several NRLs expressed their interest to collaborate with EURL to explore the advantages and disadvantages of WGS-based data for CPS epidemiology-surveillance. This collaborative study should make it possible (i) to assess WGS use for CPS typing and (ii) to compare it to the typing methods generally considered as the standard methods at the national or international levels, mainly PFGE and MLVA. The whole project should enhance EURL/NRL network consortium expertise in WGS methodology.

Expected output and time of delivery

In 2016 and 2017, in order to launch the above mentioned study, EURL CPS will first conduct a bibliographic review. EURL CPS will also generate exchanges on this topic between volunteering NRLs. EURL CPS should also start sequencing of whole genomes from a small panel of CPS strains representative of MLVA, PFGE, spa types and se genes profiles, in order to assess the ability of WGS to discriminate CPS strains involved in SFPOs and to identify the

presence of *se* genes. It is expected that WGS analysis would be performed in particular by ANSES WGS platform, located at the Ploufragan laboratory.

Subcontracting

The implementation of WGS technique will require subcontracting for transportation of strains and DNA between EURL and NRLs, as well as between EURL and ANSES WGS platform located in Ploufragan laboratory.

Missions

2 missions to ANSES WGS platform (Ploufragan, France, 1 day each).

2 missions to NRLs equipped with WGS (2 days each).

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): c.

3 NRL TRAINING AND SUPPORT TO THE NRLS

3.1 STAPHYLOCOCCAL ENTEROTOXINS IN FOOD

3.1.1 EUROPEAN SCREENING METHOD

Duration: 2016-2017

Objective, expected output and time of delivery

EURL CPS intends to organize for NRLs two training sessions (one in 2016 and one in 2017) on SE detection according to the valid version of ESM method for NRLs, . These 2 sessions will be confirmed depending on NRL needs, and will be targeted in particular to NRLs having obtained unsatisfactory results during the last PT trials (see 1.2.1).

Training

Travel and stay expenses of at maximum 4 trainees.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): d

3.1.2 QUANTITATIVE ELISA METHOD

3.1.2.1 SUPPORT TO THE NRLS (MULTI-ANNUAL)

Objective, expected output and time of delivery

Upon request and for the NRLs which have not yet been trained to the EURL CPS ELISA method for SE quantification (method Anses Maisons-Alfort CAT-BAC 16), EURL will provide scientific and technical assistance to the NRLs, especially to perform confirmation analysis of positive screening results obtained by NRLs or official laboratories with ESM, in the frame of (i) official controls performed according to the SE criterion of EC Regulation 2073/2005 modified, (ii) in case of SFPOs, upon request of the concerned NRLs. Training is also needed for the NRLs which are to participate to the inter-laboratory certification study of certified reference materials (see 3.1.3).

Mission

1 mission is scheduled for a NRL which would need on-site assistance for implementation of the ELISA quantitative method.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): d

3.1.2.2 NRL TRAINING

Duration: 2016-2017

Objective, expected output and time of delivery

EURL CPS intends to organise two training sessions (one in 2016 and one in 2017) on SE quantification for NRLs, according to the EURL CPS quantitative ELISA method. These 2 sessions will be confirmed depending on NRL needs, in particular in view of the certification study of SE reference materials developed by EC/JRC/IRMM (Geel, BE).

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): d

3.1.3 DEVELOPMENT OF CERTIFIED REFERENCE MATERIALS: CERTIFICATION STEP

Duration: 2011-2017

Objective

The need of certified reference materials (CRMs) for SEs in food is one of the priorities of the EURL CPS and a major need for the NRLs. This need has been also acknowledged by a letter from DG SANCO to EC/JRC/IRMM, dated 21/04/2010.

JRC/IRMM (Geel, BE), in collaboration with EURL CPS, has started in 2011 the project to develop CRMs on SEs in a lyophilized cheese matrix.

In 2013 and 2014, EURL performed analyses of three different CRM batches (blank, level 1 and level 2) dedicated to the homogeneity, short and long term (1 year) stability studies. The results obtained showed that the material is homogenous and stable. Thus, 8 laboratories participated to the certification step using the **qualitative** official method ESM v5.

In 2015, further to discussion with IRMM, EURL decided to perform additional analyses of the two different CRMs batches (level 1 and level 2) required to estimate:

- the long term (2 years) stability. The results obtained showed that the material was stable,
- the recovery rate at each step (freeze drying, dialysis concentration and ELISA quantification) of the preparation and analysis of the future CRMs.

These two steps allowed thorough characterization of the CRMs, a prerequisite for the **quantitative** certification study which can now be carried out.

Expected output and time of delivery

The quantitative certification study will be conducted in several steps:

- In 2016:
 - o EURL will train NRLs participants on the EURL CPS quantitative ELISA method. Two sessions will be necessary. See 3.1.2.2.
 - o Prior to the certification study and in order to check the ability of the NRLs participants to implement the quantitative ELISA method in their laboratory, EURL will organize a performance checking inter-lab trial for the participants to the certification study.
- In 2017: the EURL will participate to the organization of the certification exercise: the involvement of EURL will be limited to the preparation of positive and negative controls for participants.

The firm confirmation to IRMM of NRLs or other laboratories to participate to the certification exercise is a prerequisite to the work planned for 2016 and 2017.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): b

3.2 CHARACTERIZATION OF STAPHYLOCOCCI STRAINS

3.2.1 TECHNICAL ASSISTANCE TO NRLS (MULTI-ANNUAL)

Objective, expected output and time of delivery

EURL CPS will ensure scientific and technical assistance on characterization of CPS strains (detection of *se* genes and typing of CPS strains), for NRLs upon request.

Subcontracting

Transportation of biological samples (control strains, control DNA, contaminated samples ...) and sequencing of DNA will require subcontracting, upon request. Subcontracting is also necessary for purchase of labelled oligonucleotide probes.

Equipment

- 1 thermocycler (PCR)
- 1 lap-top computer

Mission

1 mission (2 days) to a NRL which would need on-site assistance for implementation of the methods for CPS characterization.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): b.

3.2.3 TRAINING

Duration: 2016-2017

Objective, expected output and time of delivery

EURL CPS will organize two training sessions for the NRLs, on the following methods and according to NRL needs:

- 2016: detection of *se* genes in CPS strains by real-time PCR;
- 2017: typing of CPS strains by PFGE.

Subcontracting

Subcontracting will be necessary for sequencing DNA used for training material and for purchase of labelled oligonucleotide probes.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): d

4 TECHNICAL AND SCIENTIFIC ASSISTANCE TO THE EUROPEAN COMMISSION

4.1 DG SANTE ACTIVITIES (MULTI-ANNUAL)

Upon request of the services of DG SANTE in charge of food hygiene, participation of the EURL CPS, for the analytical aspects, to the update of EC Regulation 2073/2005 on microbiological criteria related to CPS and SEs, and any new question which may arise during the year.

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): d

4.2 PARTICIPATION TO CEN/ISO STANDARDIZATION ACTIVITIES (MULTI-ANNUAL)

On behalf of the EURL CPS and as EC representative:

- Follow-up by the EURL CPS manager (Bertrand LOMBARD) of the activities of ISO/TC 34/SC 9¹ & CEN/TC 275/WG 6² for general aspects related to the standardization of reference methods in food microbiology, which concern in particular CPS and SE analysis (2 jointed plenary meetings –budget EURL *Listeria monocytogenes*);
- In particular, participation of the EURL CPS manager (Bertrand LOMBARD) and EURL deputy manager (Adrien ASSERE) to the works of two working groups of ISO/TC 34/SC 9 of specific interest for the EURL activities and for DG SANTE: WG 2 “Statistics”, WG 3 “Method Validation”, WG 4 “Proficiency testing”
 - Missions: 2 meetings of WG 2 (2 days each in Europe, TBD), 4 meetings of WG 3 (2 days each in Europe and US, TBD) and 4 meetings of WG 4 (2 days each in Europe).
- Participation of a EURL CPS scientist (Alexandra CAUQUIL) to WG 13 of ISO/TC 34/SC 9, in charge of (i) preparing an amendment to EN ISO 6888-1 (CPS enumeration, Baird Parker agar), to include an optional confirmatory test by stab-inoculation of RPF agar, and (ii) revising EN ISO 6888-3 (CPS detection/quantification by MPN).
- Leadership by a EURL CPS senior scientist (Jacques-Antoine HENNEKINNE) of the TAG 12 on SE detection of CEN/TC 275/WG 6, also project Leader for the validation of the method to be standardized (costs covered by CEN Mandate M/381, no cost in the EURL CPS budget).

Relation to EURL specific tasks (article 32.1 of EC Regulation 882/2004): d

¹ Sub-Committee 9 « Microbiology » of Technical Committee 34 « Food products »

² Working Group 6 « Microbial Contaminants » of Technical Committee 275 « Food analysis – Horizontal methods »