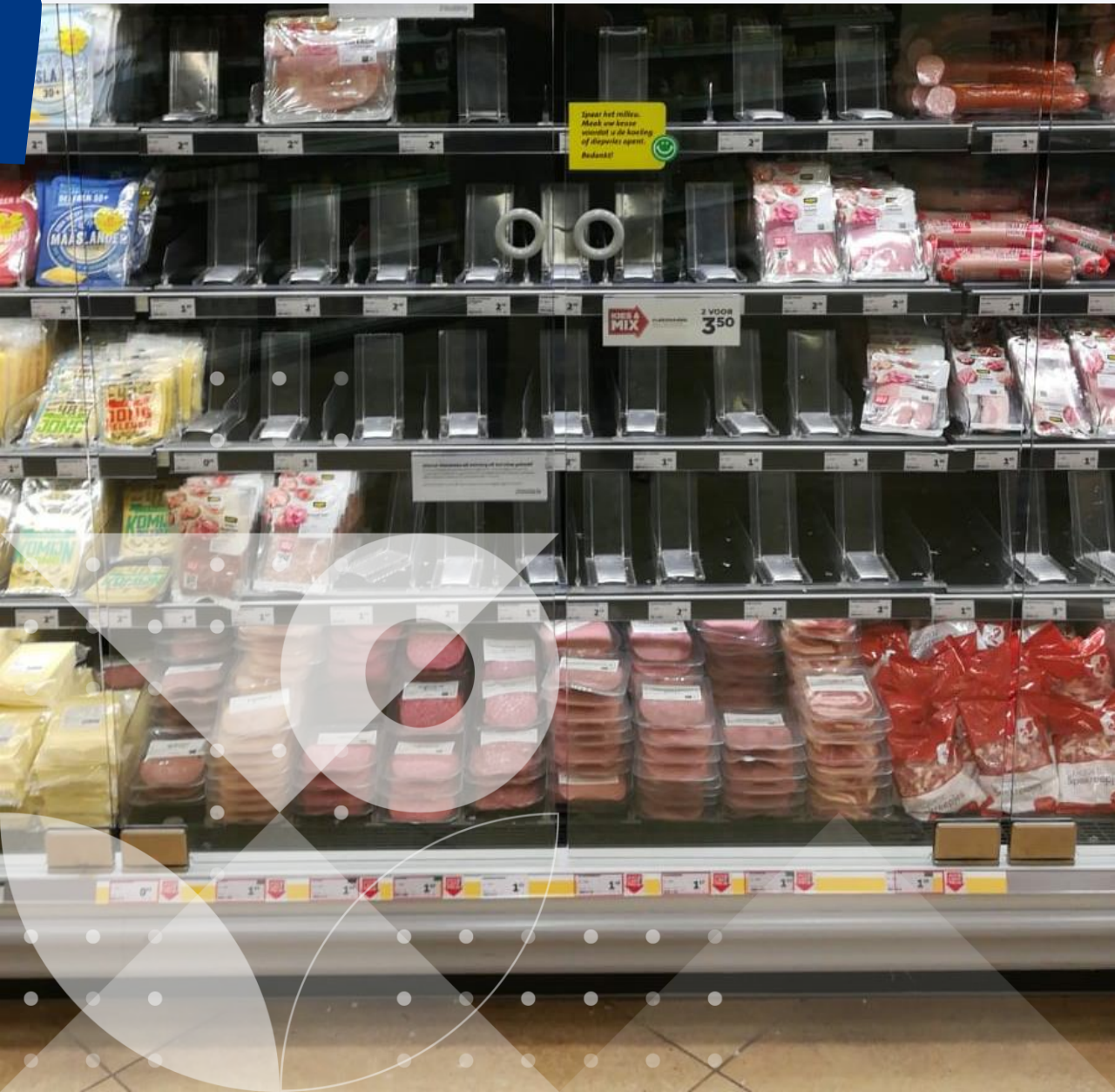


Eurofins Food Safety Solutions

Competence Center for Microbiological Risk Assessments CCMRA

February 2025

eurofinsfoodtesting.com



1. General introduction Max - Sandra
2. Food Safety Solutions in a nutshell
3. Competence Center (CCMRA)

Introduction

Max

2022 – BUMA - Eurofins Food Safety Solutions

2014 - 2022 Group QESH manager - Group of Butchers

2008 – 2014 Food Safety Consultant - Normec

BSc Food & Business - Delft

MSc Food Quality Management - Wageningen



Sandra

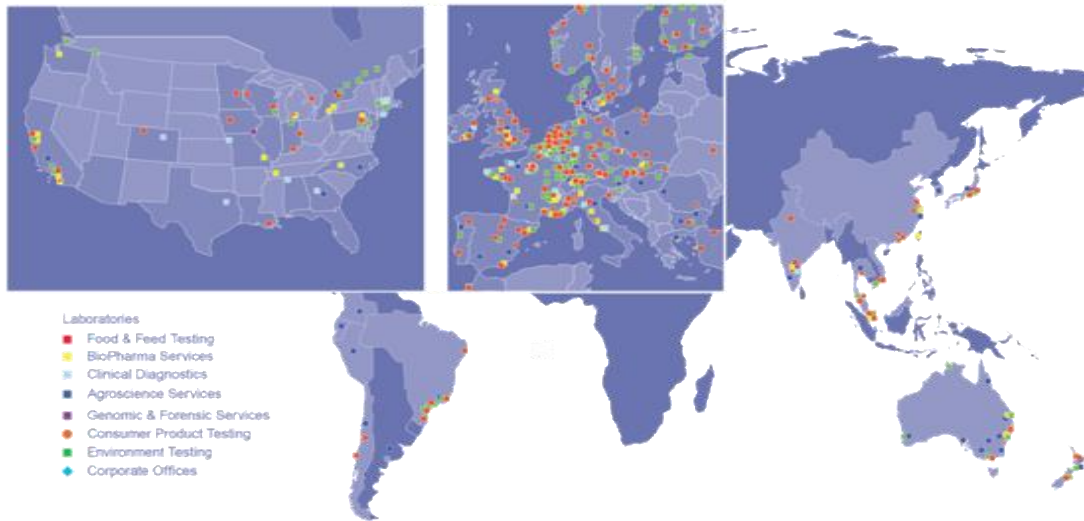
1998 – Eurofins – Manager CCMRA

1992 - 1998 ARTU Biologicals – Head of quality control department

BSc Biochemistry

MSc Food Microbiology





Benelux

- **Food Safety Solutions (Deventer)**

Food&Non-food consultancy & training, Fraud prevention, Competence Center Microbiological Risk Assessments, Regulatory affairs, Labelling compliance, Retail monitoring.

- **C-mark Water Solutions (Deventer)**

Consultancy, Sampling, Inspections, Clean water solutions.

- **WFC Analytics (Arkel)**

Food testing microbiological, Lab method validations and Challengetesting.

- **Bureau De Wit (Almere)**

Hygiene inspections, sampling, digital HACCP management for small business.

- **LabCo (Barendrecht)**

Servicing the port of Rotterdam, Mycotoxines, Organoleptic, Industrial sampling and testing

- **LZV (Graauw)**

MOSH/MOAH, Pesticides, Dioxins

- **Food Testing NL (Heerenveen)**

Microbiology, Chemical, Competence Center Carbohydrate.

- **Onsite testing**

Satellite laboratories

- **Food Testing BE**

(Nazareth/Merelbeke/Villers-le-Bouillet)

Microbiology, Chemical and Food, Feed & Water advice.

Global

From **1** laboratory in Nantes (France) in 1987 to more than **940** laboratories worldwide in 2025

>940

Laboratories

13

Competence centers

61.000

Employees

€6.95 billion

Turnover

200.000

Analytical methods

59

Countries

One stop shopping

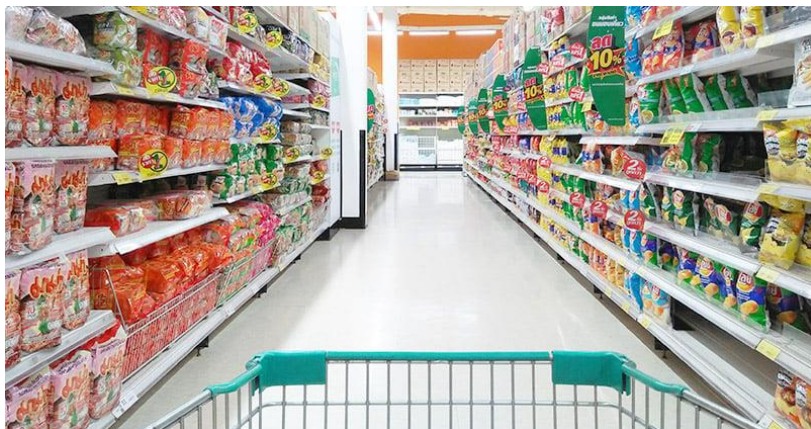
Retail & Import
monitoring

Competence **C**enter
for **M**icro **R**isk
Assessments

Product compliance

Food Safety
Consultants

Operations & Sales



- We are not your supplier; we are your QA **colleague** on supplier management
- The monitoring schemes for the retailer are created based on **risk, legislation and trends**
- All product groups (**Food and Non-food**) can be analyzed which are sold in the retail shops
- We do the **shopping and invoicing** (to the supplier) for the retailer
- We interpretate results and write **conclusions** as a final report
- New legislation is adopted into the monitoring schemes on a daily basis (**internal expertise center**)
- Dashboard is available for **retailer and supplier**

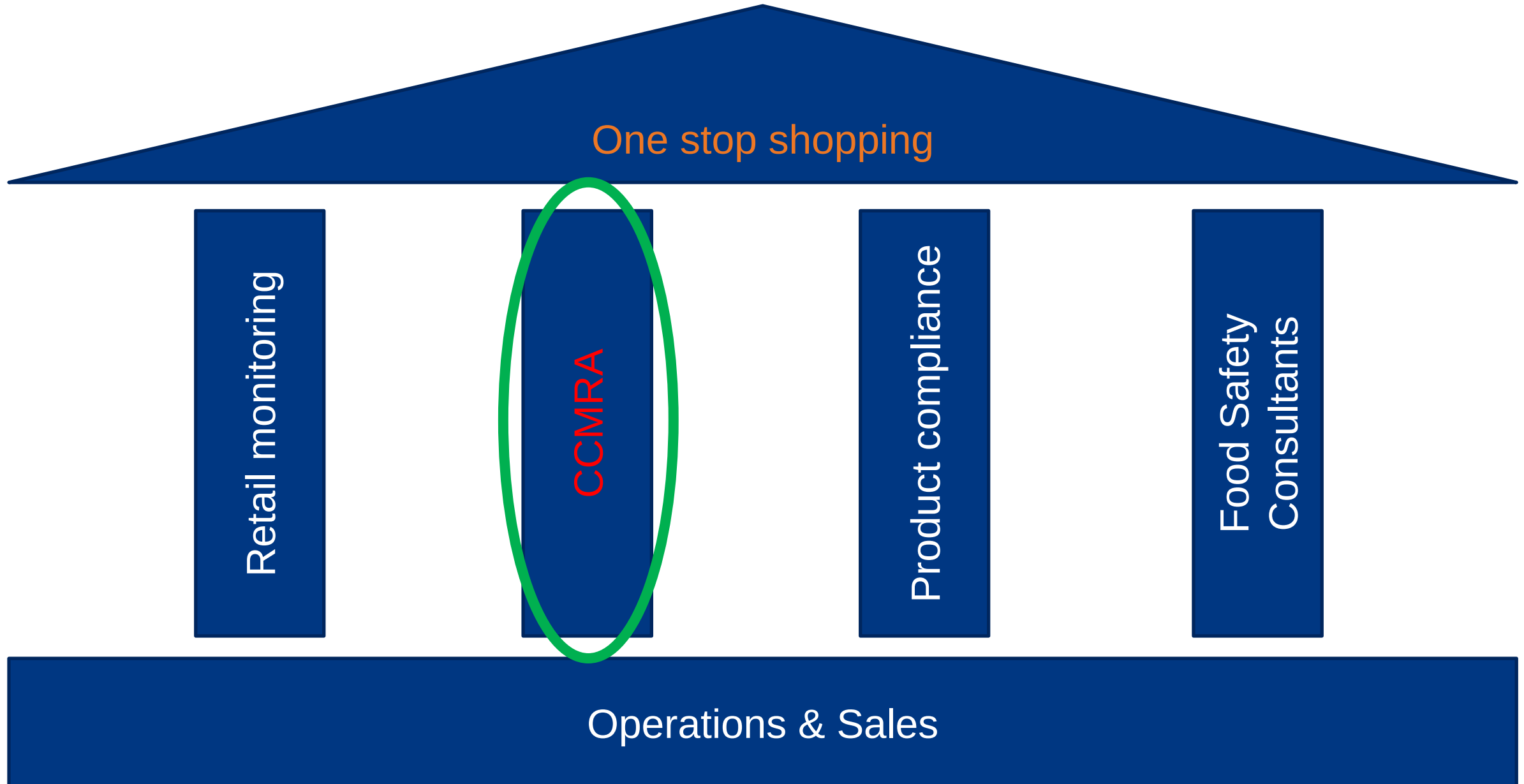
- **Food Labelling - retail:** All food products that have a label, we can check the label on compliance. Basically, everything that's on the label which is related to legislation.
- **Non-food labelling - retail:** Same approach, different subject.
- **Consultancy retail and industry:** Food and non-food labelling and specifications– retail and industry: External at the client's office.
- **Packaging monitoring:** Compliance to specifications (CO2 and waste tax), migration checks, weight/volume check and legal monitoring (i.e. PFAS).



- Interim management
- Supplier audits (international)
- The whole process regarding BRC/IFS/FSSC etc.
- Complex issues solving
- Implementation of ERP and tracking and tracing tools
- TQM
- M&A audits
- Support for tenders in retail (micro/chemical/fraud)

Basically, everything that's related to food safety





CCMRA: What's in it for a lab?

We are not a lab

We don't do testing, we just need your AR

How is the CCMRA going to help you

- Legislation for Listeria on an EU level will go live in July 2026
- EU accredited Challenge testing partners (NL/BE)
- Dedicated consultancy services for your lab and clients

What are we going to do in 2025

- Create a win-win-win triangle for Eurofins through the CCMRA

Added value for Eurofins

- Expansion of sales portfolio
- Creating more turnover for labs
- Sales proposition by adding new clients (warm leads – one stop shopping)
- Strong need for FSS services to be a full-service supplier for clients and retailers
- Retail proposition > be the main supplier for LMO compliance in the EU



1. Baseline measurement at production location (all pathogens and spoilage flora)
2. Challengetesting: *Listeria monocytogenes* and other pathogens and spoilage flora
3. *Listeria monocytogenes* quick check for retailers
4. Shelf-life and product safety (MRA and predictive modelling)
5. Heat treatment validations (production and preparation)
6. MicroLab support service

Overall Troubleshooting contaminations and emergency services - training



1. Baseline measurement



- Goal: A systematic approach to determine the current status for **regulatory compliance**
- What: *Listeria monocytogenes*
- How: A standardized step-by-step audit plan (virtual)
- Segment: All (RTE) production sites for foods
- Quality: Compliant to EU legislation

Advantage Customer: Audit report on current status for regulatory compliance, shortcomings and how to solve this

Advantage Eurofins: More microbiological analysis

2. Challenge testing: *Listeria monocytogenes*



- Goal : Determine the growth potential/speed of *Listeria monocytogenes*
- How : Challenge testing including virtual onboarding
- Segment : Ready to eat (RTE) chilled and packaged foods
- Quality : Accredited and in compliance with EU legislation 2073/2005 and ([EURL Lm TECHNICAL GUIDANCE DOC](#))
- When : Started since 1999 – more than 25 years of experience

*Advantage Customer: Substantiation for *Listeria monocytogenes* - compliance to legislation*

Advantage Eurofins: More microbiological and chemical analysis

2. Challenge testing: *Listeria mono.* Upcoming changes

ANNEX

In Annex I to Regulation (EC) No 2073/2005, Chapter 1 (Food safety criteria) is amended as follows:

(1) entry 1.2 is replaced by the following:

Food category	Micro-organisms/their toxins, metabolites	Sampling plan		Limits		Analytical reference method	Stage where the criterion applies
		n	c	m	M		
'1.2 Ready-to-eat foods able to support the growth of <i>L. monocytogenes</i> , other than those intended for infants and for special medical purposes	<i>Listeria monocytogenes</i>	5	0	100 cfu/g (*)		EN/ISO 11290-2 (**)	Products placed on the market during their shelf-life
		5	0	Not detected in 25 g (***)		EN/ISO 11290-1	Products placed on the market during their shelf-life

(*) This criterion shall apply if the producing food business operator has been able to demonstrate, to the satisfaction of the competent authority, that the level of *L. monocytogenes* will not exceed the limit 100 cfu/g throughout the shelf-life of the food. The operator may fix intermediate limits during the process that must be low enough to guarantee that the limit of 100 cfu/g is not exceeded at the end of shelf-life of the food.

(**) 1 ml of inoculum is plated on a Petri dish of 140 mm diameter or on three Petri dishes of 90 mm diameter.

(***) This criterion shall apply where the producing food business operator has not been able to demonstrate, to the satisfaction of the competent authority, that the level of *L. monocytogenes* will not exceed the limit of 100 cfu/g throughout the shelf-life of the food.;

- New proposal 2073 per July 2026 : <100CFU/g at the end of shelf-life - only if the shelf life is substantiated, : otherwise Absent / 25g till the end of shelf life

Same structure as Netherlands and Belgium from 2026 – level playing field will be equal across the EU

2. Challenge testing: *Listeria Monocytogenes*

Shelf-life substantiation: How to substantiate <100CFU/g on end of shelf life?

- Substantiation through **model study** that *Lm* cannot grow during the product's shelf life.

No growth = < 0.5 log cfu/g => confirmation with challenge test (1 batch) is needed in some countries (like Belgium)

OR

- Demonstrate by means of a **challenge test** (3 batches) that growth remains < 2 log cfu/g during the product's shelf life.

2 log = 100 cfu/g (at start 1 cfu/g) and also the legal limit from EC2073/2005

OR

- Demonstrate the absence of *Lm* by (post)pasteurization, cook in the bag or other methods such as HPP.

Consequences for not following legislation:

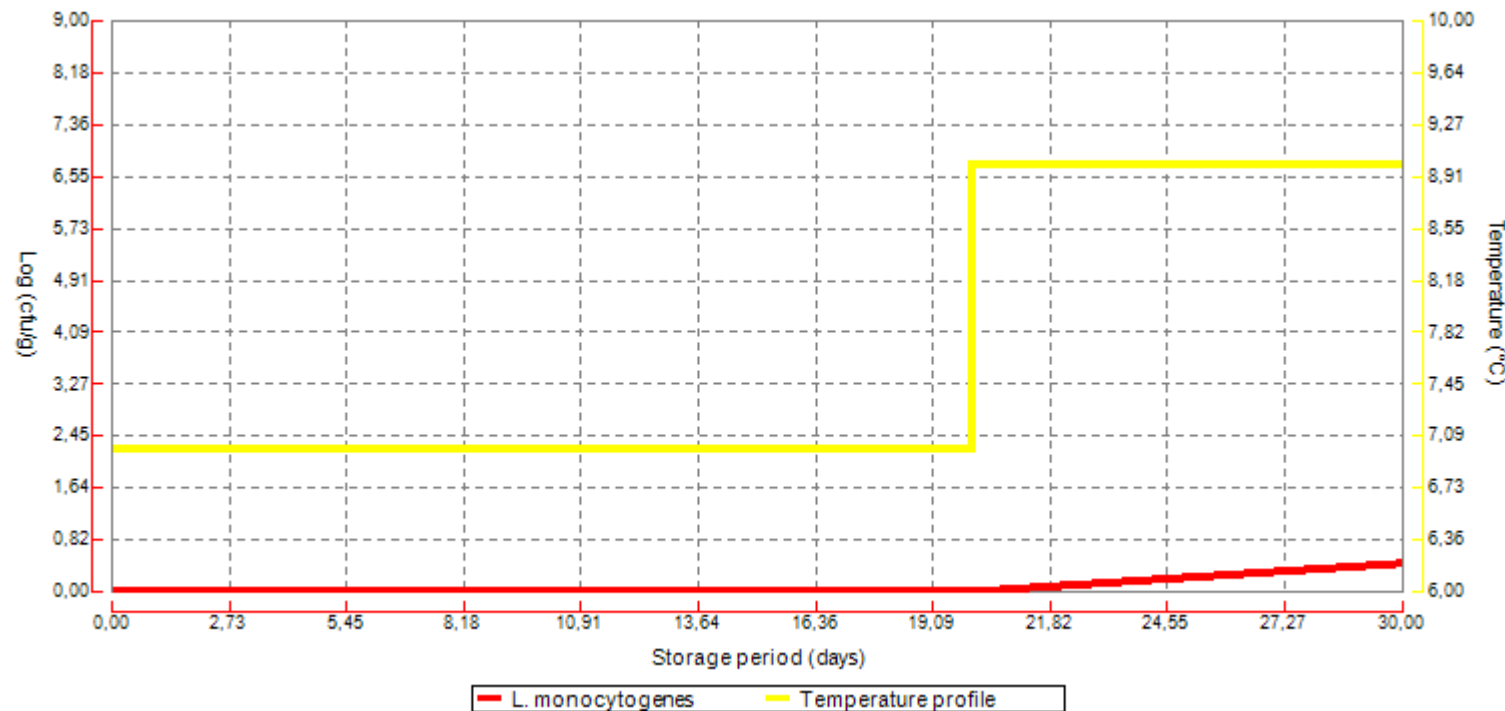
- All products that are not sufficiently substantiated: < 5 days shelf life

OR

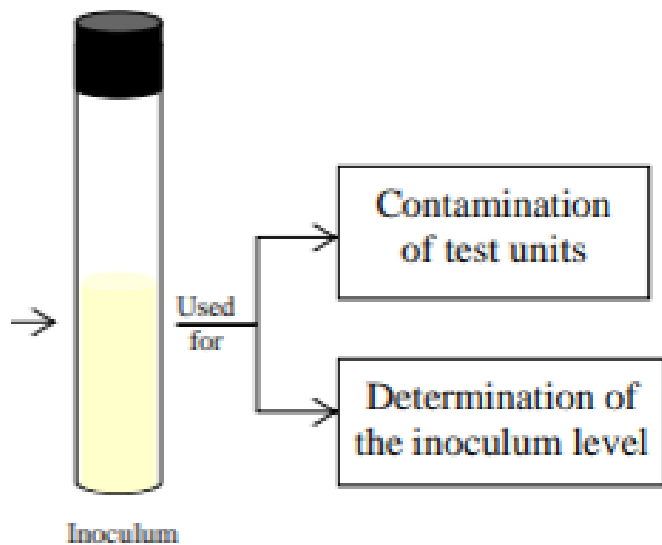
- All batches must be deployed at N=5 on *Lm*, using positive release (TEMPORARY!)

2. Challenge testing: *Listeria Monocytogenes* - Model study

- Goal : Prediction of behavior of *Listeria monocytogenes* in a product of product group
- How : Predictive modelling
- Segment : Ready to eat (RTE) chilled and packaged foods
- Quality : In compliance with the national regulation and the application of the model

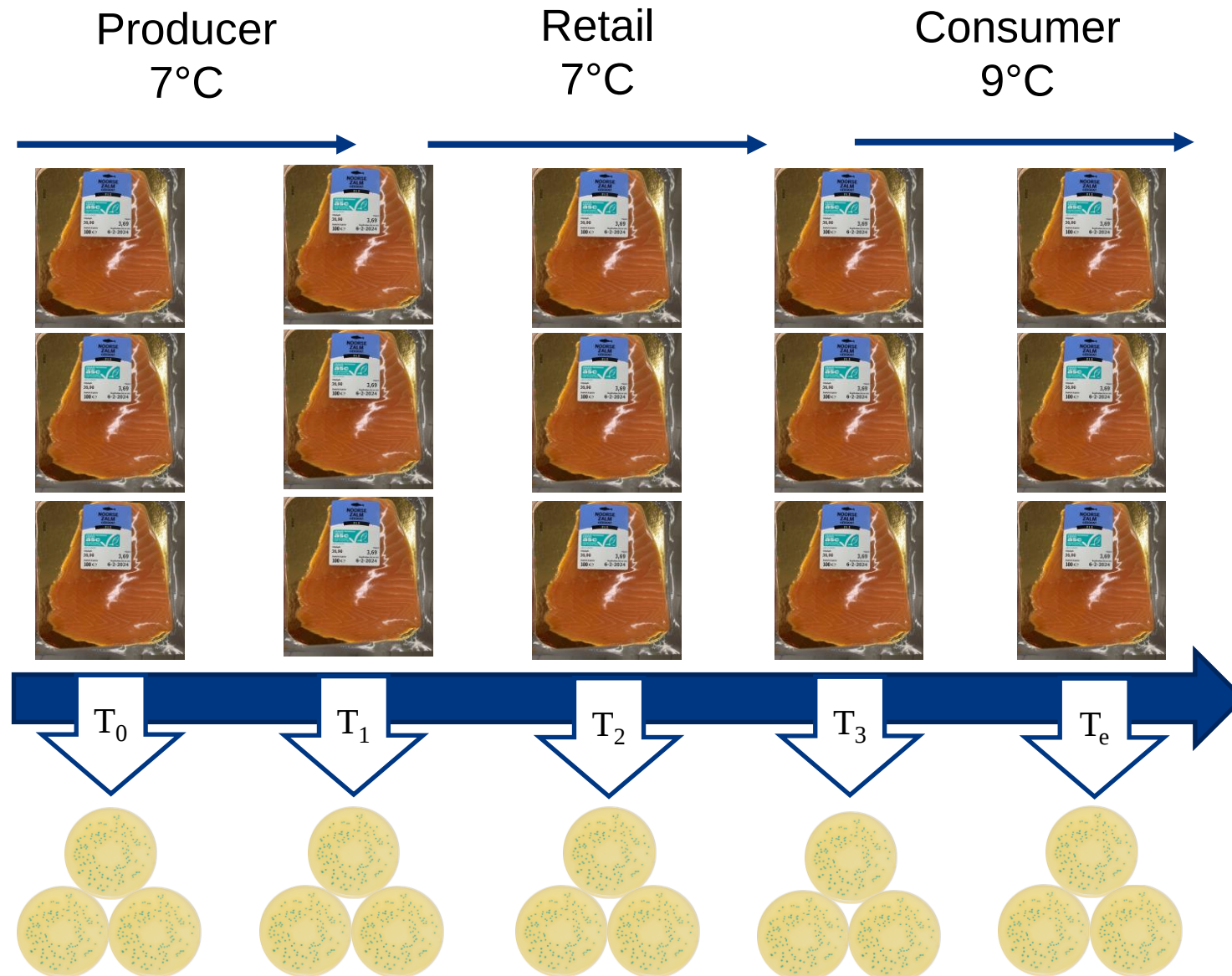


2. Challenge testing: *Listeria Monocytogenes* – Growth potential test (3-3-3-3-3) – Smoked salmon



50-200 kve/g

Minimal 20 and maximal 40 samples are required for a complete test. Consider additional chemical analyzes such as pH and inhibitory substances. But also MAP packaging. This makes challenge testing complex.



2. Challenge testing: *Listeria Monocytogenes* - Example of Inoculation of a composite dish



2. Challenge testing: *other pathogens and spoilage flora*



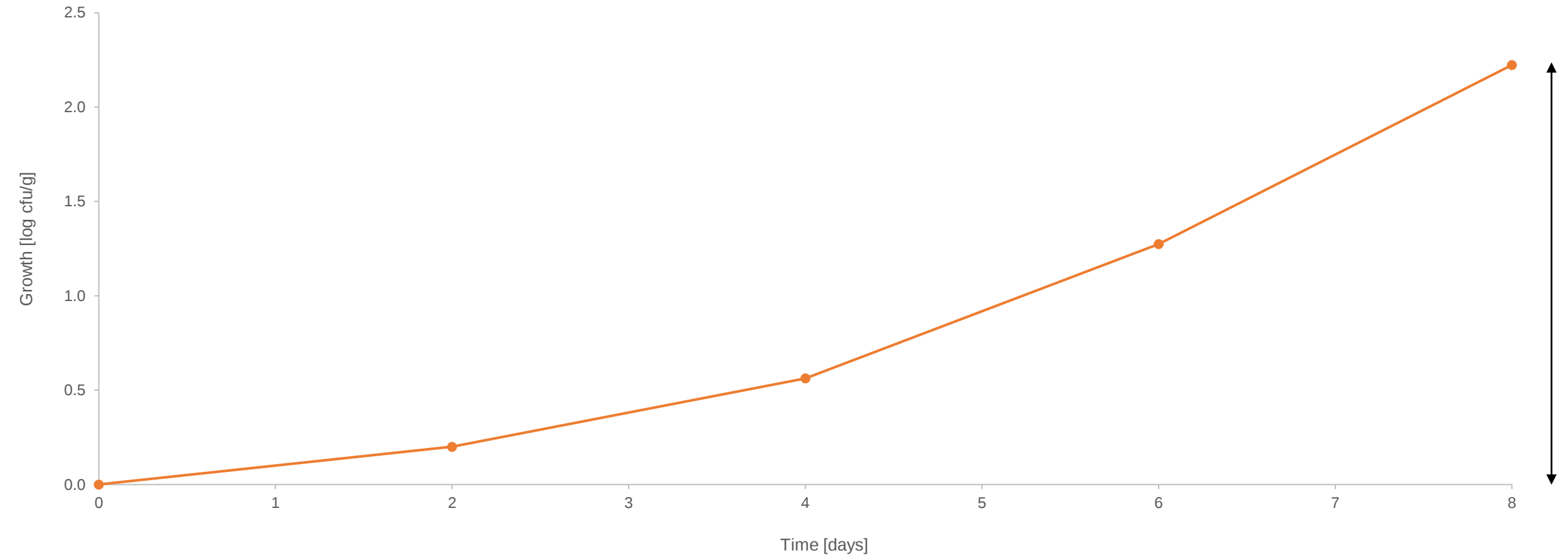
- Goal(s)
 - : Extending shelf-life non-chilled presentation – reduction food waste
 - : Replacement of traditional preservatives
 - : Assurance of final products in terms of worst case (i.e. *Salmonella* growth)
- How
 - : Challengetest including virtual onboarding
- Segment
 - : Catering industry and retail
 - : RTE foods and wheat products
 - : Meat, fish and vegan products
- Quality
 - : Compliance to EU legislation and national codes of practice

Advantage Customer: Substantiation of food safety

Advantage Eurofins: More microbiological and chemical analysis

2. Challenge testing: *Listeria Monocytogenes* and others – Determining the growth potential

- Conclusion based on highest growth value
- Example (smoked salmon): **2.22 log cfu/g**

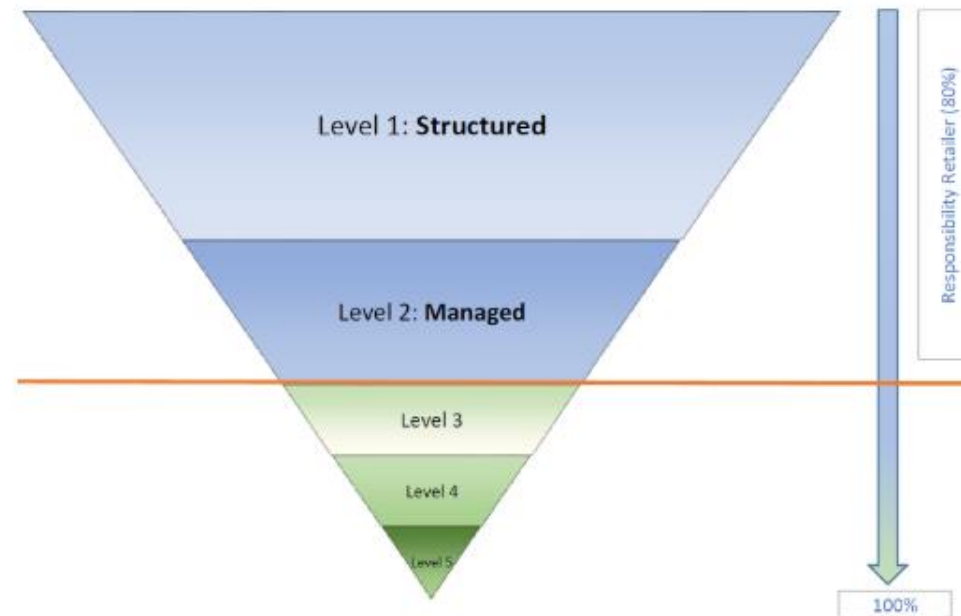


3. *Listeria monocytogenes* Quick-check for retailers



- Goal : Verification of *Listeria monocytogenes* substantiation for private label products
- How : Quick check by CCMRA developed pre-determined checklist and model
- Segment : Retail
- Quality : Compliant to legislation (EU) and part of standardized monitoring program
- Advantage Customer: *Part of the retail monitoring program and final report in eLims*
- Advantage Eurofins: *Expansion of portfolio Eurofins*

3. *Listeria monocytogenes* Quick-check for retailers



Level	Subject	What is needed from supplier	Review	Score and decisions
Level 1	Verification outgrowth based on decision tree (is it a RTE product and suitable for <i>Lm</i> growth?)	Product information: list of ingredients, packaging, shelf-life, processing, temperature profile	Challenge test and/or predictive modeling	Structured - score complies with requirements. Follow-up with level 2. If not, No Go for retailer and follow up with level 2,3,4,5
Level 2	Chemical characteristics critical parameters	Chemical characteristics delivered by supplier	Verification chemical characteristics and st.dev. by means of verification certificate of analysis	Managed - score complies with requirements. Go for retailer. If not, No Go for retailer and follow up with level 2,3,4,5
Level 3	Final product monitoring plan	Results analysis endproducts from period (1 year), frequency and amounts, action plan	Calculation % out of specification (oos)	Predictable - consultancy
Level 4	Environmental monitoring plan	Results analysis environment	Calculation % out of specification (oos)	Capable - consultancy
Level 5	Raw materials monitoring plan	Results analysis raw materials	Calculation % out of specification (oos)	World class - consultancy

4. Shelf-life determination and product safety



- Goal : Establish, verification or prolongation of shelf-life and product safety
- How : Microbiological risk analysis (MRA), predictive modeling, verification by testing
- Segment : All – virtual onboarding
- Quality : Compliant to EU legislation and based upon the WHO guideline
- *Advantage Customer: Substantiation of shelf-life, product safety and compliant to legislation*
- *Advantage Eurofins: More microbiological and chemical analysis*

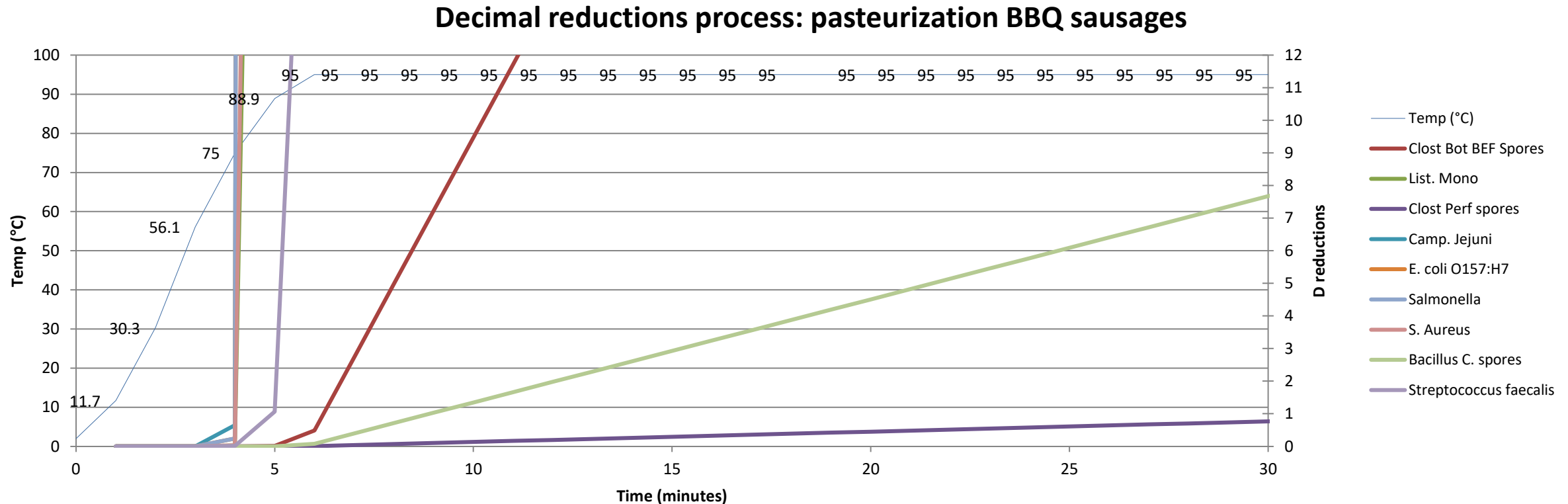
5. Heat treatment validations



- Goal : Validation- effectiveness of heat treatment processes by decimal reductions
- How : Microbiological risk assessment (MRA), reduction models, survival test
- Segment : RTE foods, catering industry and retail
- Quality : Compliant to EU legislation, label compliance check (preparation method)
- *Advantage Customer: Substantiation of effectiveness for heat treatment processes*
- *Advantage Eurofins: Expansion of sales portfolio Eurofins*

5. Heat treatment validations

Example validation heat treatment processes: D-reduction



Business case: validation and reduction of pasteurization time to reduce energy use and processing time

- Based on our data, we've managed to reduce the cooking time by 20 minutes
- Result: Validated process and over 2000 hours of pasteurization time reduced each year

6. MicroLab Support Service



- Goals
 - : Technical support in the implementation of performing challenge tests
 - : Optimization of microbiological laboratory processes
 - : Support with ISO-17025 accreditation
 - : Internal audits
- How
 - : Consultancy at Eurofins location, hybrid or virtual
- Segment
 - : All microbiological food testing laboratories
- Advantage Eurofins: *Increase quality level, expand portfolio and issue solving*

Troubleshooting: contaminations and emergencies



- Goal : Determining and detecting the source of contamination at production sites and laboratories (pathogens and spoilage micro-organisms)
- How : Consultancy at location, hybrid or virtual
- Segment : All production companies and microbiology laboratories
- Advantage Customer: *Solving issues*
- Advantage Eurofins: *Customer loyalty and relationship management*

Upcoming in 2025

- **Webinars and training**
 - Challengetesting
 - Retail supplier management
 - MRA and predictive modelling
 - Shelf-life determination
 - MicroLab support service
- Guidance on Listeria management for manufacturers (free!)
- Infographics and articles
- We will update our website regularly

<https://www.eurofinsfoodtesting.com/competence-centre-mra>



Looking forward to support you and
your customers in 2025

Thank you!



Food, Feed, Water

CCMRA@ftb.nl**[eurofins.com](mailto:CCMRA@ftb.nl)**

Sandra Roesink-Smale

T: +31 (0)6-52066456

E: sandra.roesink-smale@ftb.nl

eurofinsfoodtesting.com