

Activities and role of the European Union Reference Laboratory for *L. monocytogenes*

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EURL *Lm*

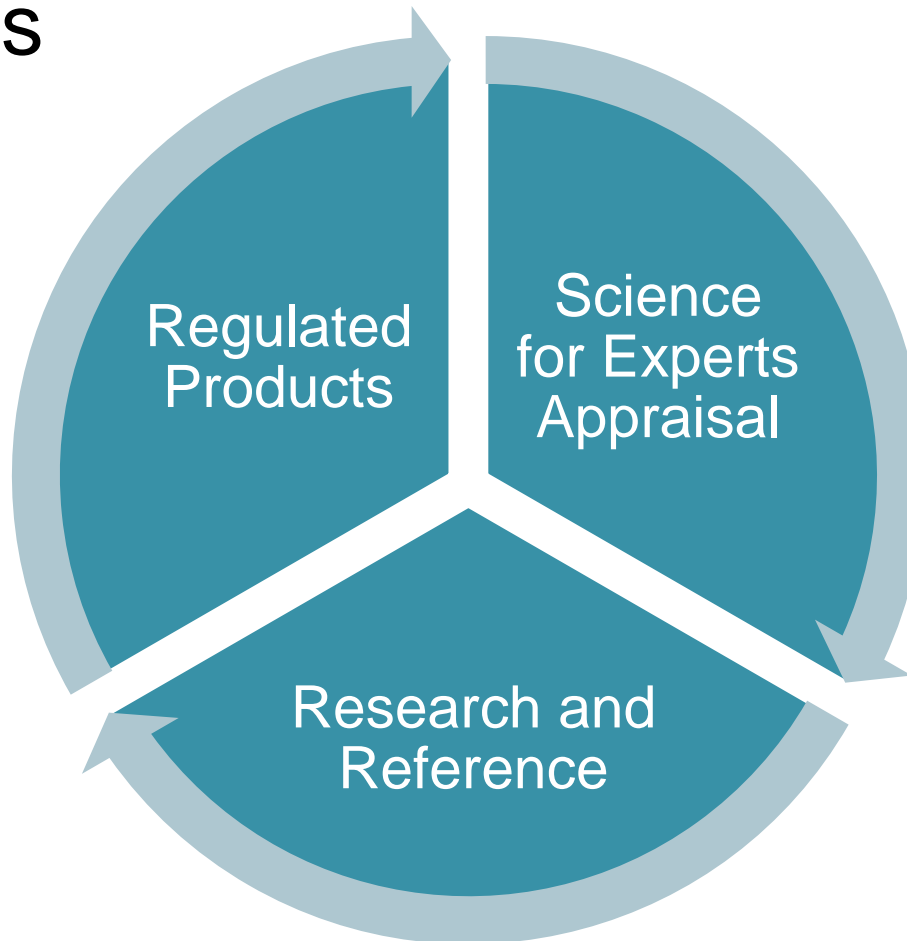
ANSES

French Agency for Food, Environmental and Occupational Health & Safety

3 divisions

1350 staff

800 experts



11 labs

9 EURLs

66 NRLs

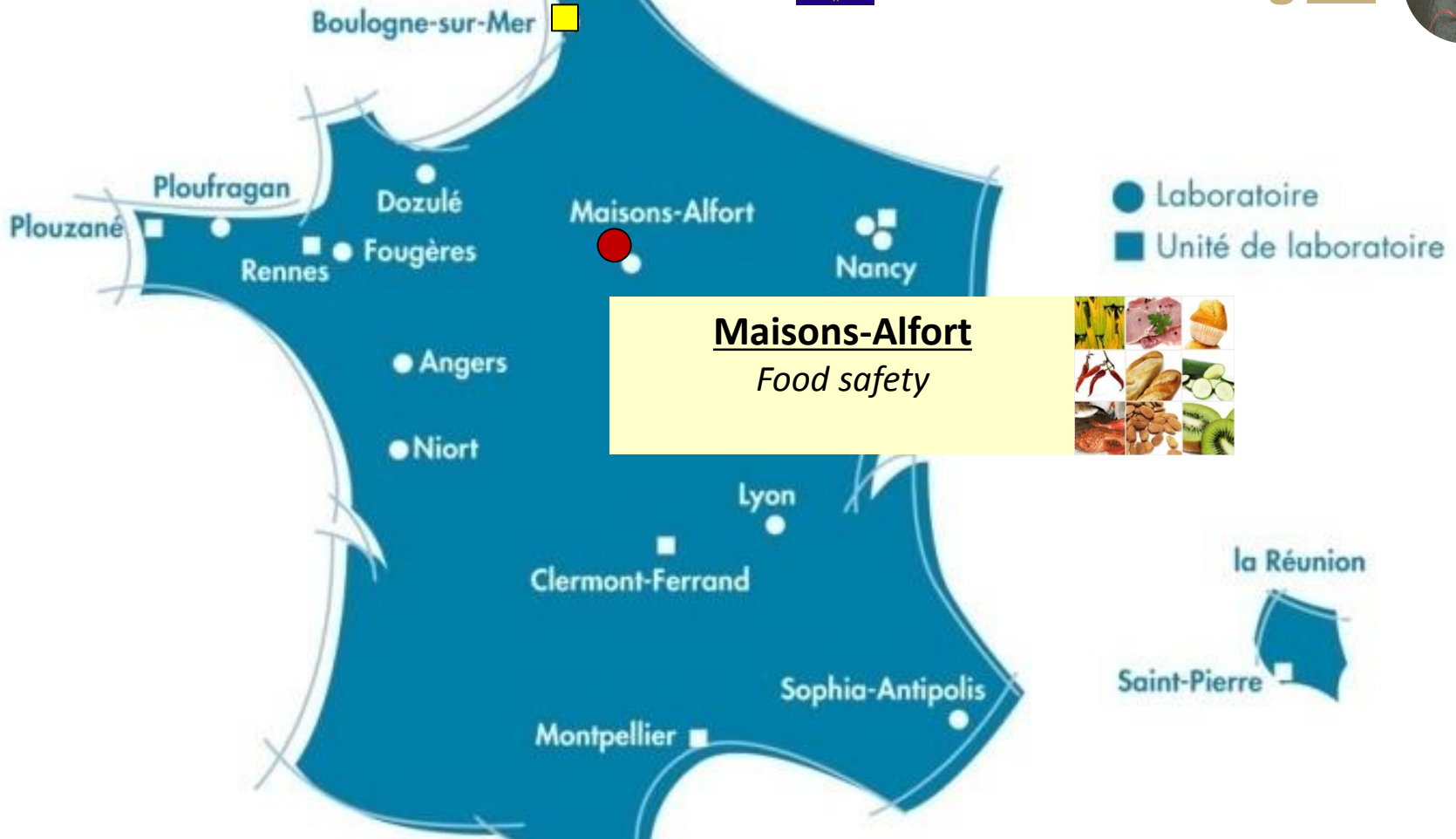
ANSES – Laboratory for food safety

Boulogne-sur-Mer

Fishery and aquaculture products

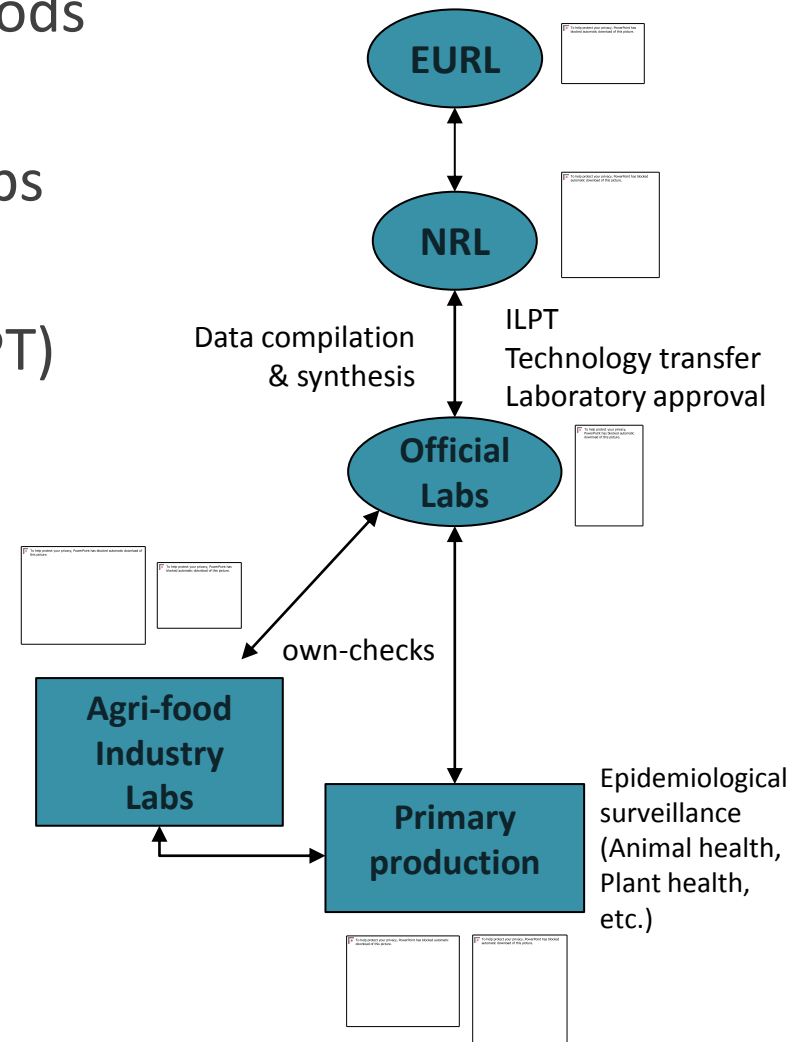


3 EURLs including Lm



Role of reference laboratories

- Development and validation of methods
- Networking and training of official labs
- Inter-laboratory proficiency tests (ILPT)
- Scientific & technical assistance
- Scientific watch
- Foodborne outbreak investigation





EURL/NRL *Lm* network

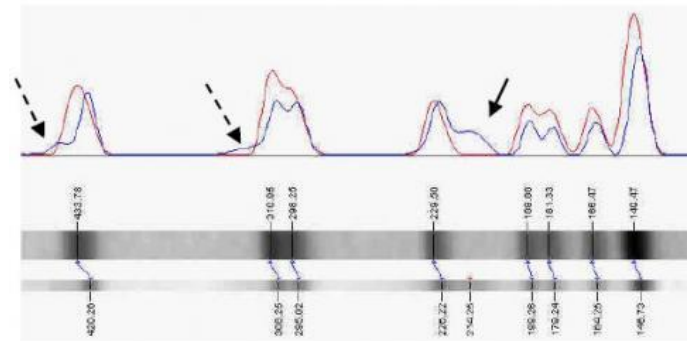
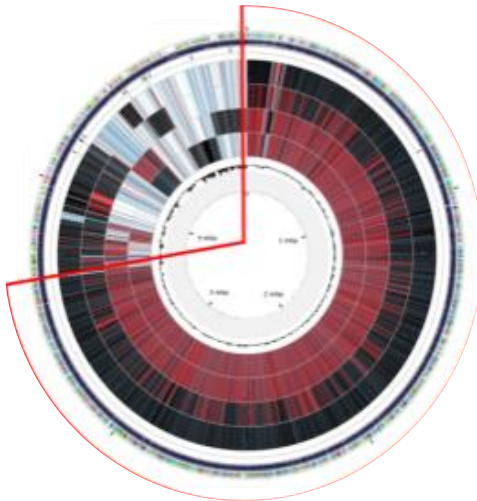
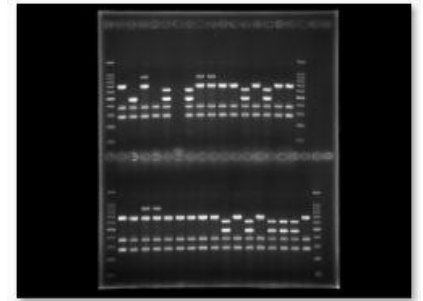
- Since 2006 EC Reg 882/2004 mod. 776/2006
- 36 NRLs + FYROM and Norway

At least 1 NRL from each EU Member State



EURL for *Listeria monocytogenes*

ANSES-Lab for Food Safety - designated in 2006



Legal frame

- Reg. EC 2073/2005 on microbiological criteria for foodstuffs
- *Lm*: 3 food safety criteria for ready-to-eat (RTE) foods

Chapter 1. Food safety criteria

Food category	Micro-organisms/their toxins, metabolites	Sampling plan ⁽¹⁾		Limits ⁽²⁾		Analytical reference method ⁽³⁾	Stage where the criterion applies
		n	c	V _m	M		
1.1 Ready-to-eat foods intended for infants and ready-to-eat foods for special medical purposes ⁽⁴⁾	<i>Listeria monocytogenes</i>	10	0	Absence in 25 g		EN/ISO 11290-1	Products placed on the market during their shelf-life
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 ⁽⁵⁾		EN/ISO 11290-2 ⁽⁶⁾	Products placed on the market during their shelf-life
		5	0	Absence in 25 g ⁽⁷⁾		EN/ISO 11290-1	Before the food has left the immediate control of the food business operator, who has produced it
1.3 Ready-to-eat foods unable to support the growth of <i>L. monocytogenes</i> , other than those intended for infants and for special medical purposes ⁽⁴⁾ ⁽⁸⁾	<i>Listeria monocytogenes</i>	5	0	100 cfu/g		EN/ISO 11290-2 ⁽⁶⁾	Products placed on the market during their shelf-life

<http://data.europa.eu/eli/reg/2005/2073/2017-01-01>

Coordination of *Lm* network

- Annual workshops
 - General scope or thematic
 - Regulatory/epidemiological context (EFSA/ECDC)
 - Works undertaken since last workshop
 - Work programme for next year



Training courses

- @EURL or *in situ*
 - Upon needs expressed by NRLs & for NRLs with unsatisfactory results to PTs
 - Examples
 - *detection/enumeration*
 - PFGE typing + data analysis
coorganised with EURLs VTEC & Salmo (EFSA-ECDC DB)
 - Shelf-life studies
- Online video tutorials
 - *Lm* PFGE typing profile interpretation



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport



Assessment of NRLs performance

- ≠ Proficiency tests (PT)
 - 1/year for regulatory parameters (*Lm* detection or enumeration with EN ISO 11290-1 or 2)
 - Use of reference methods required
 - PFGE (testing & interpretation), serotyping, MLST
 - challenge test (*Lm* growth potential)
- Follow-up of corrective measures
- New test materials
 - Matrices
 - Level of contamination
 - Contamination techniques



Support to NRLs

- Assistance to NRLs
 - Confirmatory analyses
 - *Lm* typing
 - for investigating national outbreaks
 - Support for National typing database implementation
 - Support for organisation of national PTs
 - Replies to queries (e-mail, phone)
 - Provide set of strains
- Participation to National network meetings

Analytical development

- EURL in-house work, possibly in collaboration with some NRLs
- To develop/improve & validate reference methods/reference materials for official control
 - Impact of test portion/new *Listeria* species/sample pooling
 - Characterization/typing methods (PFGE, fAFLP, MLVA, WGS)
- Certified reference materials
 - ↗ in collaboration with EC/JRC (Geel)
 - DNA-plugs for *Lm* PFGE typing
- Upon the needs

Joint
Research
Centre

Networking = Collaboration+Harmonisation

Drafting reference documents

- EFSA SOP on PFGE for *Lm*
- Guides for NRLs/national official labs/competent authorities
 - Criteria for outsourcing part of PTs on *Lm* detection/enumeration
 - Measurement uncertainty/*Lm* enumeration
 - Sampling techniques of surfaces of food processing environment for *Lm* analysis
 - Shelf-life studies: challenge tests, durability study
 - Lab competence to conduct shelf-life studies for CAs & NRLs



Support to DG SANTE

- WG on microbiological criteria
- Participation for DG SANTE to European/international technical meetings/activities
 - CEN/ISO standardization (*Lm* detection/enumeration, challenge tests, WGS)
- Involvement in EC/third countries sanitary negotiations
- Participation to EFSA WGs
- Curation of EFSA/ECDC database for PFGE profiles of *Lm* food strains
- Participation to EURLs WG on WGS
- Investigation of European-level food-borne outbreaks (*Lm*)



Conclusion

A virtuous circle

