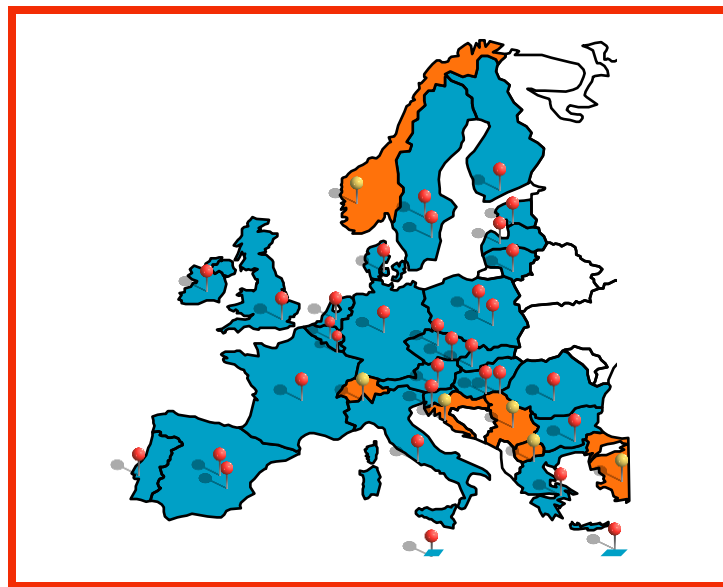




Summary of the Workshop

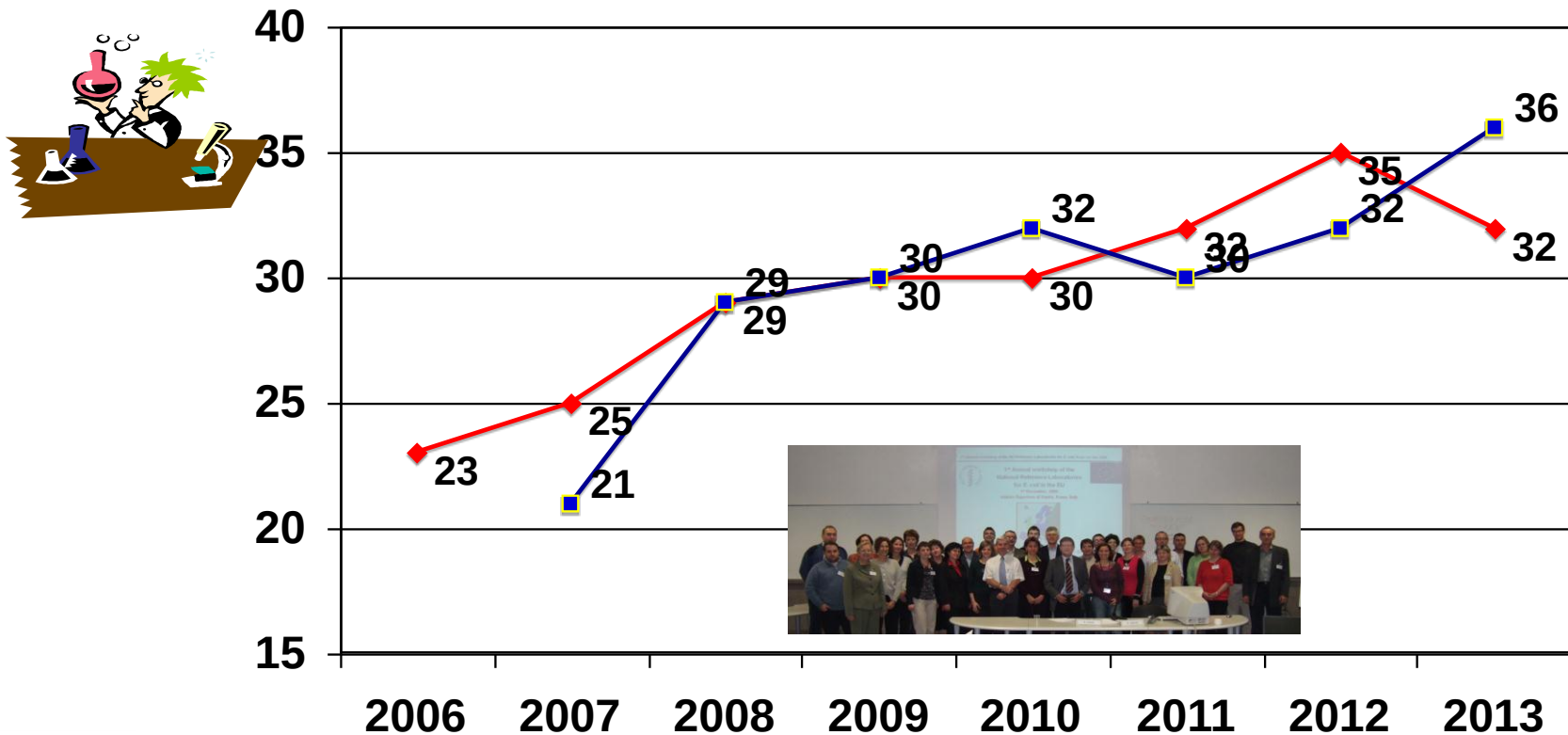


Aim of the Annual Workshops

To establish and consolidate the Team of EU Reference Labs

NRLs participating in the Network activities

◆ Workshop ■ PTs



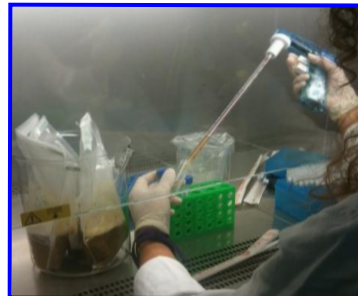
To establish and consolidate the Team of EU Reference Labs

PREPAREDNESS

- ✓ Developments in the legislation on VTEC
- ✓ Publication of a laboratory standard
- ✓ Outbreaks continue to occur
- ✓ Increased controls (and disputes) on beef



Increased request of VTEC testing



PREPAREDNESS - VTEC

PT 10 results

- ✓ Excellent agreement for all the lab in the detection of the VTEC target genes
- ✓ Encouraging results for the detection of the “new” target genes of Enterohaggregative *E. coli*
- ✓ Improvement still needed for serotyping

PREPAREDNESS - *E.coli* is not only VTEC !

2012 Workshop

- ✓ *E. coli* other than VTEC can cause foodborne infections
- ✓ Need of preparedness toward other *E.coli* patho-types

PT 11 results

- ✓ Good results for the detection of the “new” target genes of ETEC, EIEC and EAggEC
- ✓ PT12: detection of VTEC and non-VTEC in food

**Better preparedness toward
pathogenic *E.coli* other than VTEC**

Detection of VTEC in food (1)

- ✓ Controls on sprouts enforced by July 2013 (Reg. 209/2013)
- ✓ Need of labs accredited for testing
- ✓ Methods for testing spent irrigation water
- ✓ ISO/TS 13136 RT PCR screening step:
 - ✓ *Interference by phages ?*
 - ✓ *Vtx2f: increasing reports in human disease. Not covered by the ISO/TS 13136 screening !!*

Detection of VTEC in food (2)

- ✓ **vtx gene subtyping: increasing importance for risk assessment (and management)**
- ✓ **to improve the automation of the lab procedure (microplate immuno-concentration) ... further standardization (proposal to CEN ???)**

Detection of VTEC in food (3)

- ✓ Testing other food: Management of VTEC-positive batches
- ✓ Risk Assessment according to 178/2002 (several factors, including the local food habits)
- ✓ Which VTEC types have to be considered hazards ???
- ✓ Two stages methodology (screening + isolation):

How to manage a positive PCR screening test NOT supported by VTEC isolation ???

Basic knowledge on VTEC (1)

- ✓ **Role of phages:**
 - ✓ *Evolution of VTEC and new pathotypes*
 - ✓ *Significance of their presence in food (and in animals, humans,..... everywhere ?)*
 - ✓ *Possible interference when testing food for VTEC??*

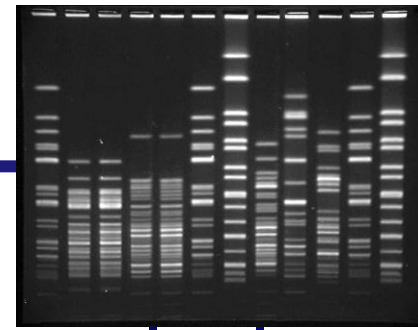
Basic knowledge on VTEC (2)

- ✓ **VTEC genomics:**
 - ✓ *Exponential growth of data available (bio-informatic needed !)*
 - ✓ *Important interest in EFSA !!*
 - ✓ *Practical use in typing (SNPs typing) ?*
 - ✓ *Sequence as an indicator of*
 - ✓ *The patho-phenotype of VTEC (irulence predictor)?*
 - ✓ *The geographic origin of O157 strains ?*

News from the NRLs

- ✓ Continuous work for standardization of detection and typing methods
- ✓ Sprouts but meat is still a problem !!
 - ✓ *Border rejections of beef from 3rd Countries.....*
 - ✓ *The risk associated with game meat products*
- ✓ Epidemiology
 - ✓ *Confirmation that VTEC O104 is endemic in some areas*
 - ✓ *Increasing role of VTEC O26 (and its “mysterious” epidemiology ??)*

Molecular typing data bases



- ✓ The joint (**ECDC – EFSA**) development of data bases for molecular testing of foodborne pathogens is going ahead
- ✓ The EU-RL is interacting with EFSA for the development of the data collection system and the database
- ✓ The EU-RL is providing advice, EQA, and training (PFGE, Bionumerics course in 2014) to the NRLs
- ✓ Two rounds of EQA on PFGE typing already carried out: a basis for data collection already exists
- ✓ Criteria for PFGE scoring: the debate is still open

Proficiency Testing (PT) in 2014

- ✓ PT on the detection of VTEC in sprouts (Reg. 209/2013)
- ✓ PT on the identification and typing of pathogenic *E. coli* (VTEC and others)
- ✓ A 3rd proficiency testing scheme for PFGE typing (conducted on the same strains of the previous study)

Thank you and

..... *ARRIVEDERCI* to 2014 !!!

