

# TSE EURL: update activities

Giuseppe Ru, EURL-TSE



# The European epidemiological context

- BSE in cattle : stable situation of a rare group of diseases (-C, -L, -H)
- Human vCJD: 232 cases worldwide, last case in UK in 2016 (in total 178), recent additional cases associated with laboratory accidents
- C-scrapie: EU trends, decreasing in sheep, stable in goats
- Nor98 (A-scrapie): scattered/sporadic
- CWD: concerning in Norwegian reindeer, scattered/sporadic in (a) moose in Norway, Finland, Sweden, and (b) red deer in Norway

# The EURL-TSE activities

1. to ensure availability and use of high-quality methods and to ensure high quality performance by NRLs
2. to provide scientific and technical assistance to NRLs
3. to provide scientific and technical assistance to the European commission and other organisations
4. to produce, store and circulate (reagents) and reference mat.
5. to account for requirements related to other legislation

*Legal basis: Art. 94 of Regulation (EU) 625/2017*



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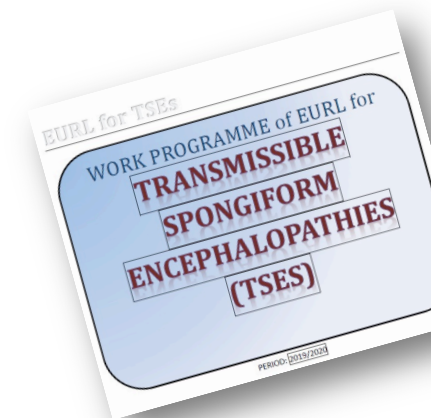
## the last round of EQAs

- All planned External Quality Assessments (EQA) have been carried out and completed: thanks to all of you as this year the deadlines were tight to get ready for this early meeting!!!
- Over this afternoon results & feedbacks will be provided for **9 EQAs**:
  - 2 Screening: **Rapid test** for BSE and for scrapie (RB23/RS22)
  - 3 Confirmatory: **Immunoblot** for BSE and scrapie (WB23, WS23) & **PrP immunohistochemistry interpretation** (IHC-I23) and **Technical**
  - 2 Discriminatory: **Discriminatory western blot** in small ruminants (DS22) & cattle (DB23)
  - 2 Genotyping: **PRNP genotyping** in sheep and in goats (GS23, GG23)

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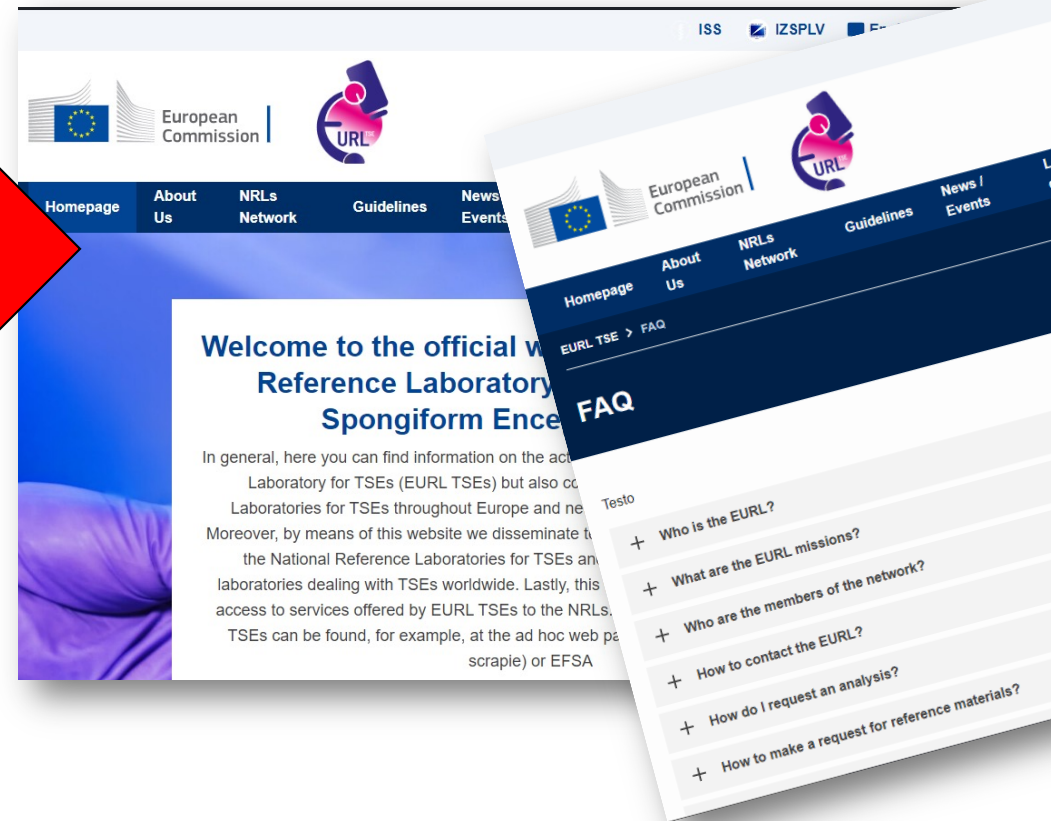
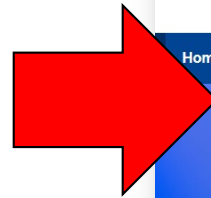


## Beyond the EQAs: interactions in our network

- As usual, fruitful interactions between NRLs and EURL!
- Short list of interactions (e.g. assistance or exchanges of views or materials provided):
  - **2023** with NRLs colleagues from of Austria, Belgium, Croatia, Finland, Ireland, Lithuania, Poland, Portugal, Romania, Slovenia
  - **2024** with NRLs colleagues from of Cyprus, Ireland, Latvia, Poland, Portugal, Slovenia

# The new EURL website, fostering communication

It includes a free access area:  
Homepage; About Us; NRLs  
Network; Guidelines; News /  
Events; Legal sources &  
documents; FAQ; Contacts

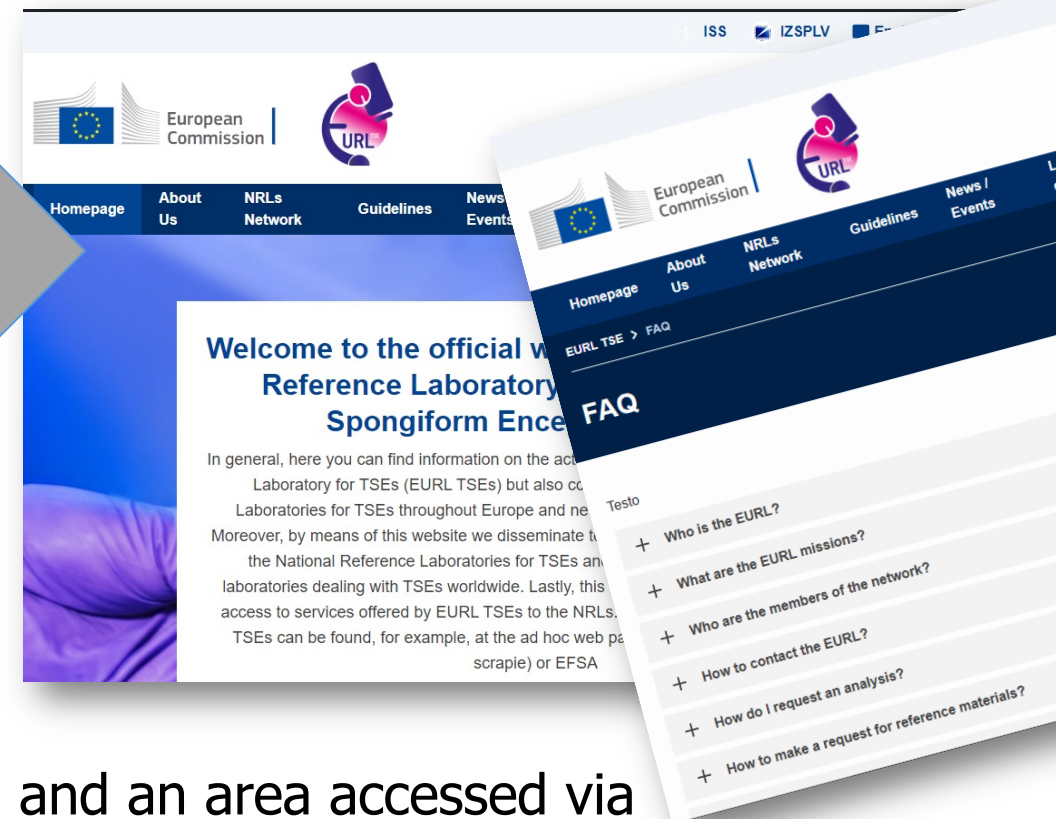
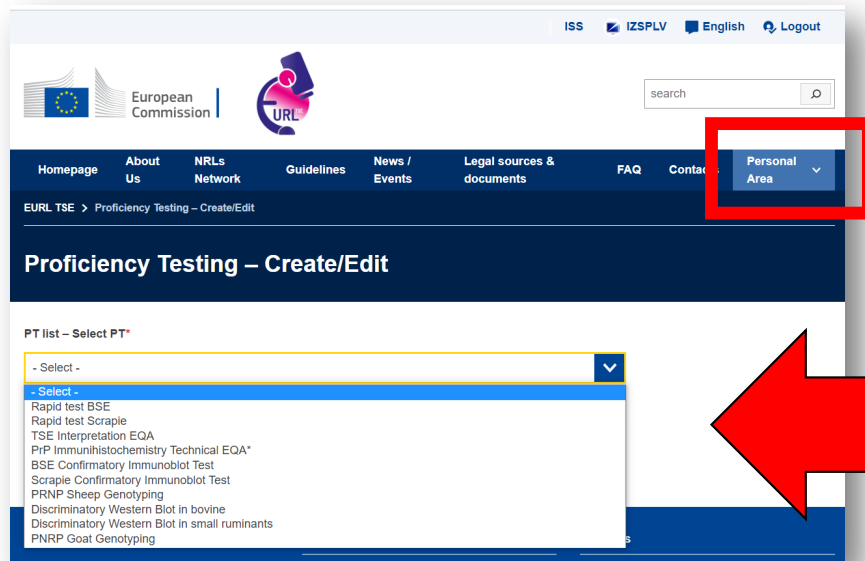


<https://www.eurl-tse.eu/>



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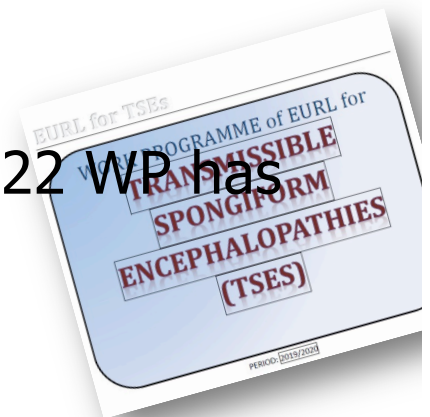
and an area accessed via  
login/password, dedicated to EURL  
and NRL staff for the management  
of PTs and Batch tests

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We work through 2-year Work Programmes: the 2021-2022 WP has been closed and now we are running the 2023-2024 one



# Project for propagation of Atypical BSE

The project in a nutshell

- **inoculation of 1 ml of 10% homogenate** per animal intracerebr.
- After inoculation, the animals undergo **clinical examinations (weekly), blood sampling (monthly) and cerebrospinal fluid collection (every six months)**.
- The confirmation of BSE infections and subsequent collection of reference materials at necropsy take place **after 20 months**.



Facilities at the FLI, Isle of Riems



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# Biosafety in prion laboratories

- Keeping high the attention, aiming at common best practices
- Lectures in the 19th and 20th EURL-TSE Annual meetings
- Survey carried out among Directors of NRLs for TSE

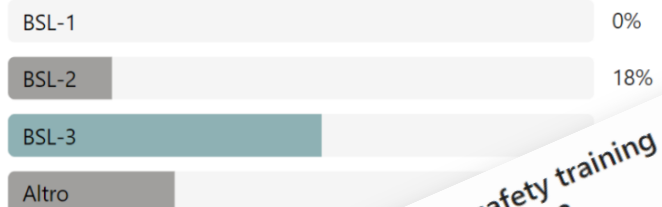
## Aims of the questionnaire:

- Collect information regarding the biosafety measures currently implemented in the National Reference Laboratories for transmissible spongiform encephalopathies.
- Present and discuss at the 20th meeting EURL TSE (Rome, 2-3 October 2023) the aggregated and anonymised results.

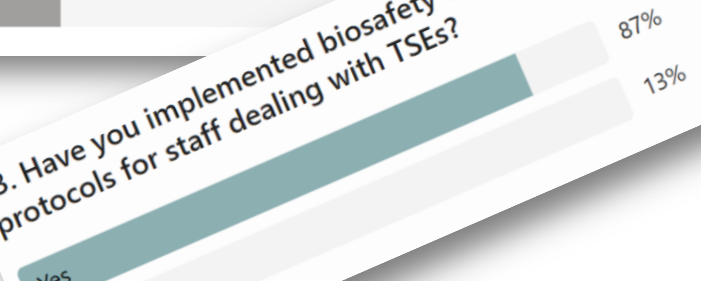
## Respondents:

- 35 countries contacted.
- 30 respondents.

8. If yes, which is the level assigned to the laboratory/laboratories?



13. Have you implemented biosafety training protocols for staff dealing with TSEs?





# BIOSAFETY IN NATIONAL REFERENCE LABORATORIES FOR TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES

## A SURVEY HIGHLIGHTS ROOM FOR IMPROVEMENT



Figure: Countries hosting the NRLs surveyed.

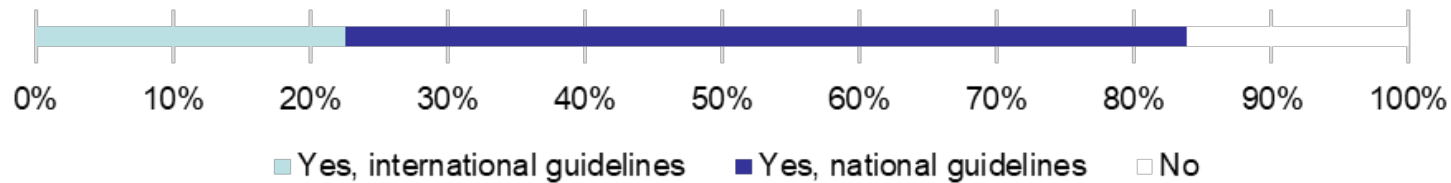
## RESULTS

Survey response rate: 100% (n=31). NRLs mainly conduct **diagnostic** activities (96.8%, n=30), followed by **research** activities (35.5%, n=11). Only three NRLs (9.7%) perform **experimental inoculations** in laboratory animals.

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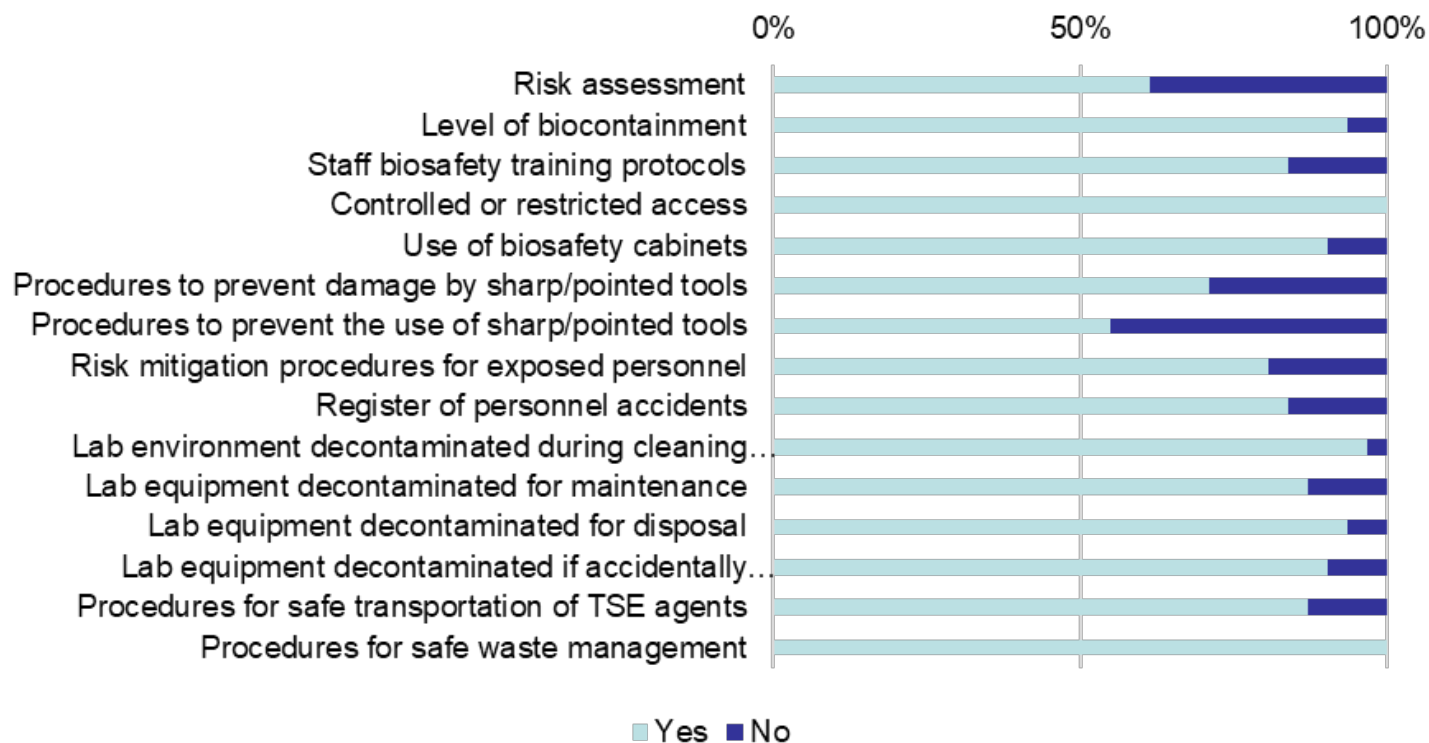
Are there any specific national guidelines for safely working with TSE agents?



# BIOSAFETY IN NATIONAL REFERENCE LABORATORIES FOR TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES

## A SURVEY HIGHLIGHTS ROOM FOR IMPROVEMENT

### Application of specific biosecurity practices





# An ad hoc folder



# Finally we are close to plan the new work programme

- Due to a reorganization at CE level the current 23-24 WP was submitted and approved in the second semester 2023.
- In few weeks we will be requested to prepare and submit the new one

- EQAs
- Assistance to NRLs
- Batch testing activities
- L/H BSE prop\_project
- Biosafety issues



SMP-FOOD-2023-EURL-EURC-AG-IBA

## Activities of the EU reference laboratories and EU reference centres in 2023-2024

### Contents

1. LIST OF ABBREVIATIONS AND KEY WORDS.....
2. INTRODUCTION.....
3. ACTIVITIES .....
- 3.1. WP1: METHODS .....
- 3.2. WP2: ASSISTANCE TO NRLs.....
- 3.3. WP3: ASSISTANCE TO THE EUROPEAN COMMISSION .....
- 3.4. WP4: REAGENTS AND REFERENCE COLLECTIONS.....
- 3.5. REQUIREMENTS RELATED TO OTHER LEGISLATION ...
4. REMARKS.....

# Now, let's keep to collaborate

- **Visit us!**

- <https://www.eurl-tse.eu/>

- **Contact us!**

- [giuseppe.ru@izsto.it](mailto:giuseppe.ru@izsto.it)
- [eurl.tse.batchtesting@izsto.it](mailto:eurl.tse.batchtesting@izsto.it)
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