



# EUVET mission to Poland on Rabies (Mazowieckie region)

(19 - 20 May 2021 )

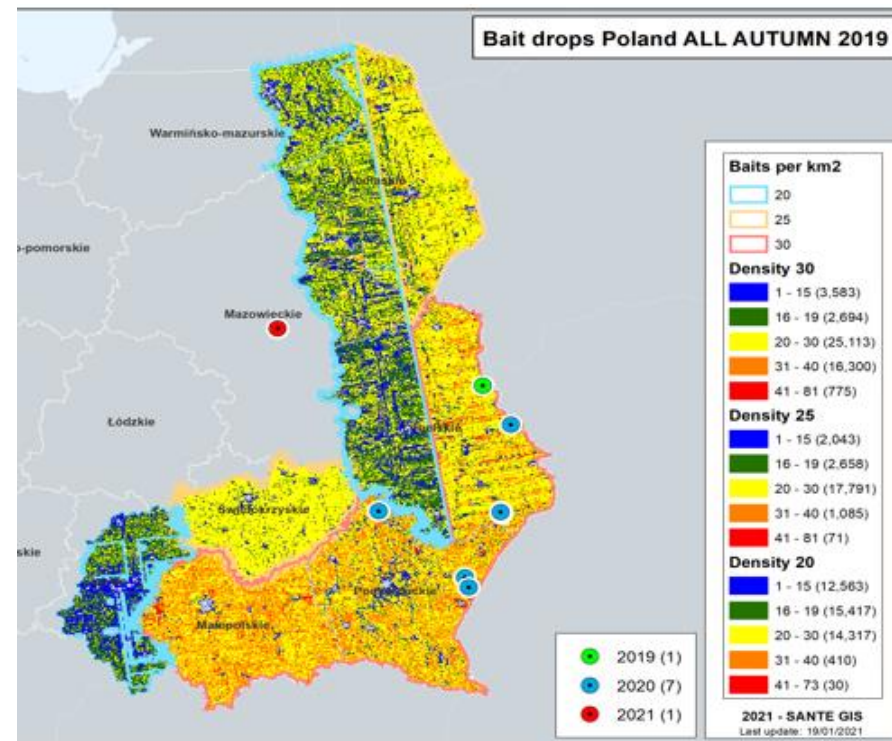
- **ToR:** The experts should provide scientific, technical and managerial assistance to better understand the reasons for the re-occurrence of rabies in the Voivodship of Mazowieckie and refine the control and eradication measures for rabies under local conditions.
- **Experts:** Florence Cliquet (France); Marius Masiulis (Lithuania); Edvins Olsevskis (Latvia); Jedrt M. Wernig (Slovenia)

# Epidemiological situation

- The last case of rabies in non-flying mammals was detected in Mazowieckie region in 2004
- In 2019
  - Only one case has been reported in Poland
- In 2020
  - the number of rabies cases increased in the vaccination area, with a total of 7 positive cases

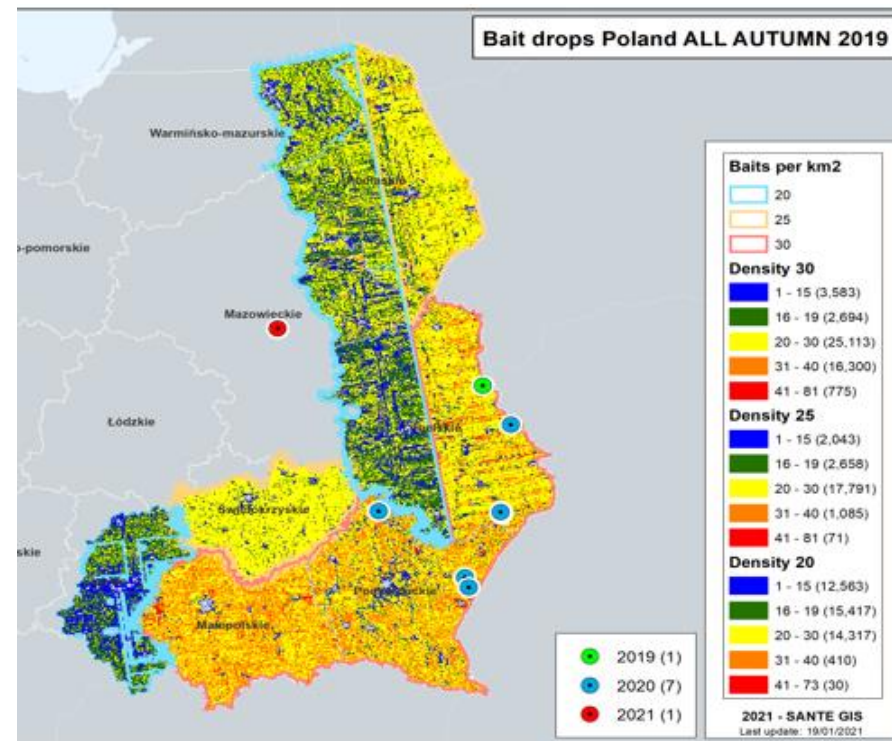
# Epidemiological situation

- One of the cases was located in the north of Podkarpackie region
  - June 2020
  - located inside the vaccination area, only 30 km from the border with Swietokrzyskie region where no ORV was performed in spring 2020



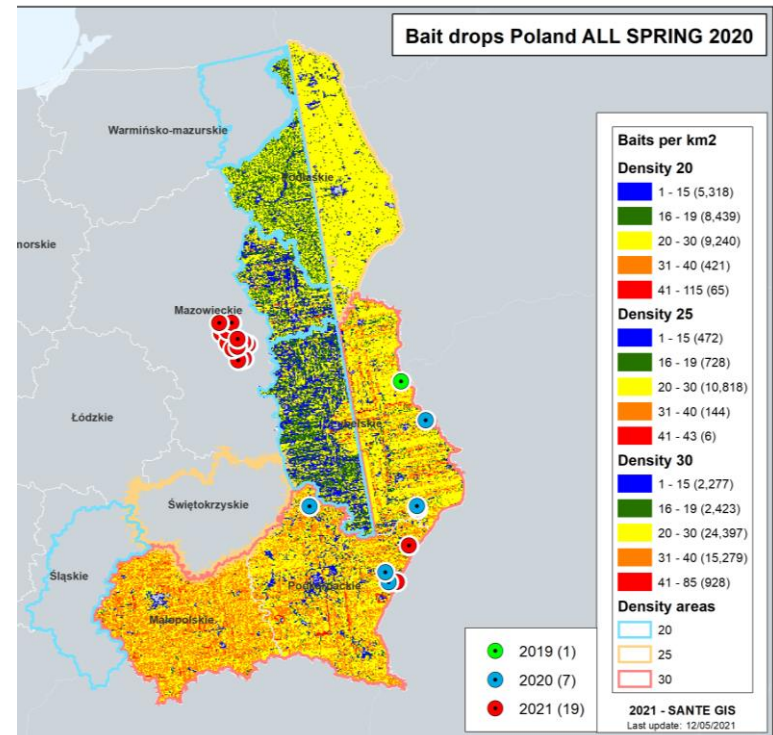
# Epidemiological situation

- The first case of rabies in 2021 in Mazowieckie region
  - confirmed by NRL for rabies on 15th January
  - The suspicion was raised on 3rd January 2021 when the affected fox entered a private backyard where it was fatally bitten by the owner's dog
  - Field strain



# Epidemiological situation

- additional 17 rabies cases confirmed until 11th May 2021
  - in Otwock (first case)
  - Garwolin
  - Minsk districts
- all in fox
  - 15 in found dead foxes
  - one in shot fox
  - one in caught and euthanized fox

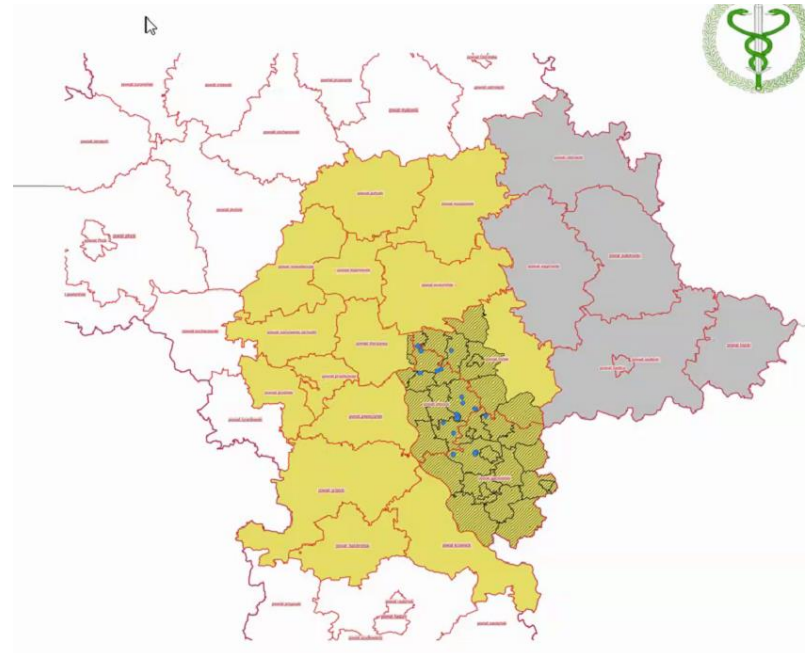


# Control measures

- Due to the re-occurrence of rabies in Mazowieckie region specific rabies control measures were implemented
  - delimitation of protection/surveillance area
  - ban on hunting of all game excluding hunting of wild boar in relation to ASF
  - dogs must be held on leashes or in the fenced yards
  - ban on shows, exhibitions and other gathering of pets
  - emergency manual distribution of vaccine baits
    - after the third confirmed case – in March 2021
    - vaccine baits were manually distributed in a limited area of 118 km<sup>2</sup> at the density of 30 baits per km<sup>2</sup>

# Control measures

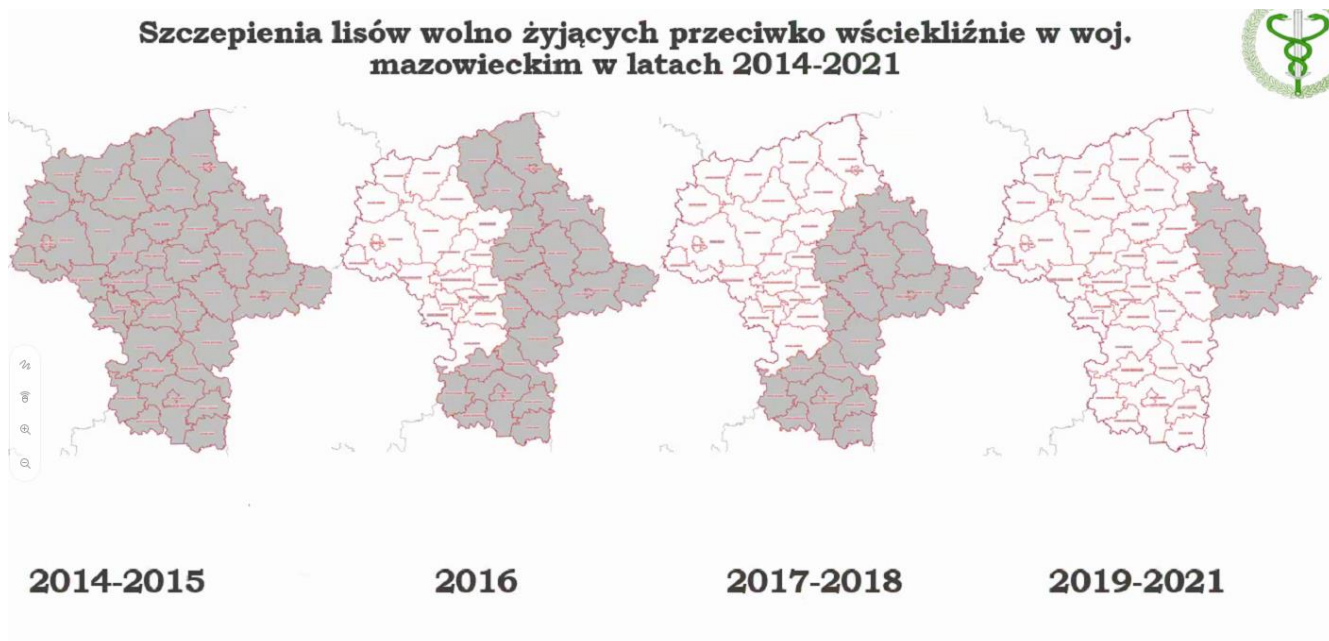
- The newly established surveillance (yellow) and protection (dark yellow) is being vaccinated as of 19 May 2021 and will be included in the regular ORV area





# Evolution of ORV in Mazowieckie region

- Oral Rabies Vaccination (ORV) areas have been adapted according to the evolution of rabies



# Control measures

- Public awareness campaigns on the importance of preventive vaccination of dogs and cats have been carried out during the last two years
  - increase in numbers of vaccinated dogs and cats is observed in Mazowieckie region since 2020

# Conclusions

- Poland has made considerable progress towards nationwide rabies elimination
  - ORV programme has succeeded in eliminating terrestrial rabies from the western and central parts of the country
  - since 2020 the number of rabies cases increased again in the vaccination area
  - most of the cases were located close to the borders with non-EU countries with an exception of one case in the north of Podkarpackie
  - at the beginning of 2021 rabies cases were detected in a previously rabies free area in the Mazowieckie region (17 cases until 11th May 2021)

# Conclusions

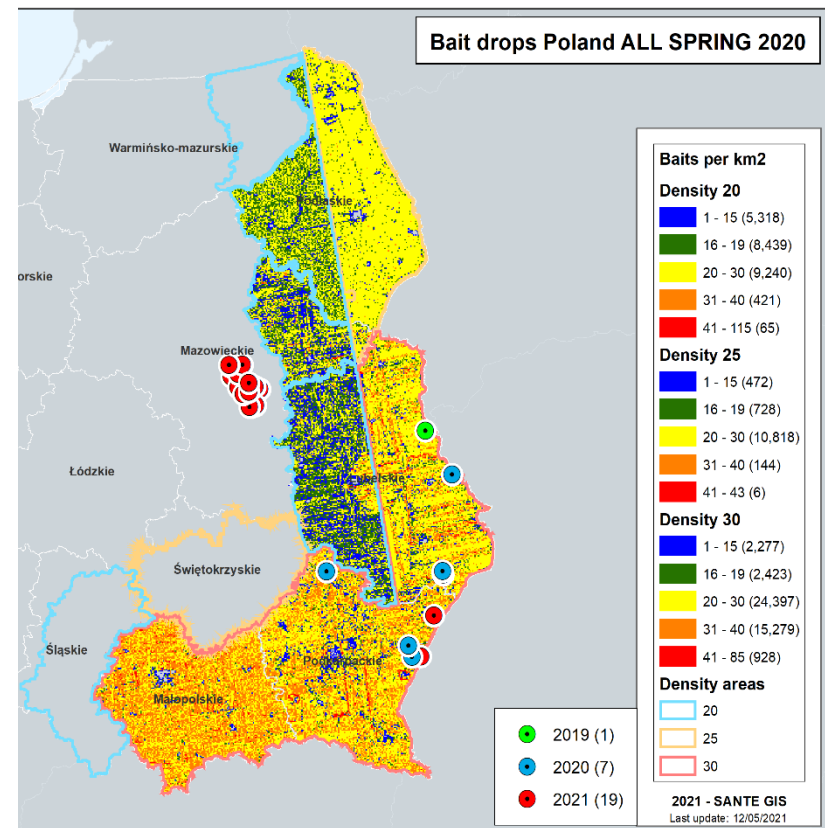
- An adequate system of laboratory-based rabies surveillance and ORV monitoring has been put in place
- Quality controls on the delivery and handling of vaccine baits have been implemented
- Passive surveillance
  - it allows detection of new rabies introduction
  - in some districts the number of animals tested was low and could delay the early detection of rabies

# Conclusions

- Establishment of ORV areas was adapted to the epidemiological situation
- The reduction of ORV area in 2021 around the case in the north of Podkarpackie region (fox, June 2020) was premature
  - Only one ORV campaign (in autumn 2020) was performed in sufficiently large area after the confirmation of the case (in Podkarpackie region there were two ORV campaigns- autumn 2020 and spring 2021 but in Swietokrzyskie region there was only one ORV campaign, in autumn 2020)

# Conclusions

- The targeted density of vaccine baits in the ORV area bordering non-EU countries was achieved
- which was not the case in the ORV area bordering the newly infected region in 2021



# Conclusions

- ORV was performed according to the approved rabies eradication programme in April 2021 in the five easternmost districts of the Mazowieckie region
  - These districts are part of the buffer zone alongside the Eastern border of the EU that were subjected to regular ORV in the last years
  - As an initial reaction to rabies outbreak in the newly infected area, manual vaccination was performed in March 2021 in a limited area of 118 km<sup>2</sup> with 30 baits per km<sup>2</sup>
  - emergency ORV with aerial distribution of baits in the newly established vaccination area (protection and surveillance zones) has started on 19th May 2021

# Conclusions

- Public awareness campaigns on the importance of preventive vaccination of dogs and cats have been carried out during the last two years
  - Because of these awareness campaigns an increase in numbers of vaccinated dogs and cats is observed in Mazowieckie region since 2020
- It was difficult to identify a possible (likely) source of the infection in the newly infected area
  - The phylogenetic analysis of the rabies virus isolates from cases confirmed in the newly affected area and previous nearest cases would give valuable information that could help identifying the likely source of virus introduction in Mazowieckie region in 2021.



# Recommendations

- General aspects
  - Efforts in rabies control and elimination should concentrate on residual and on-going foci and higher risk areas bordering infected non-EU countries in the east of the country
  - Coordination of the implemented ORV programme should be strengthened and arrangements of ORV activities among neighbouring regions (voivodships)
  - Increased hunting pressure, especially driven hunts with or without dogs, is not a useful tool to control the spread of any of the animal diseases including rabies. However, a total hunting ban in the areas where the disease is present might not be adequate. Hunting methods as driven hunt that tend to facilitate the movement of wild animals to other areas should be banned. Other methods such as individual hunt (hunting from towers as an example) might be an option, if that is not in contradiction with provisions set in the national legislation.

# Recommendations

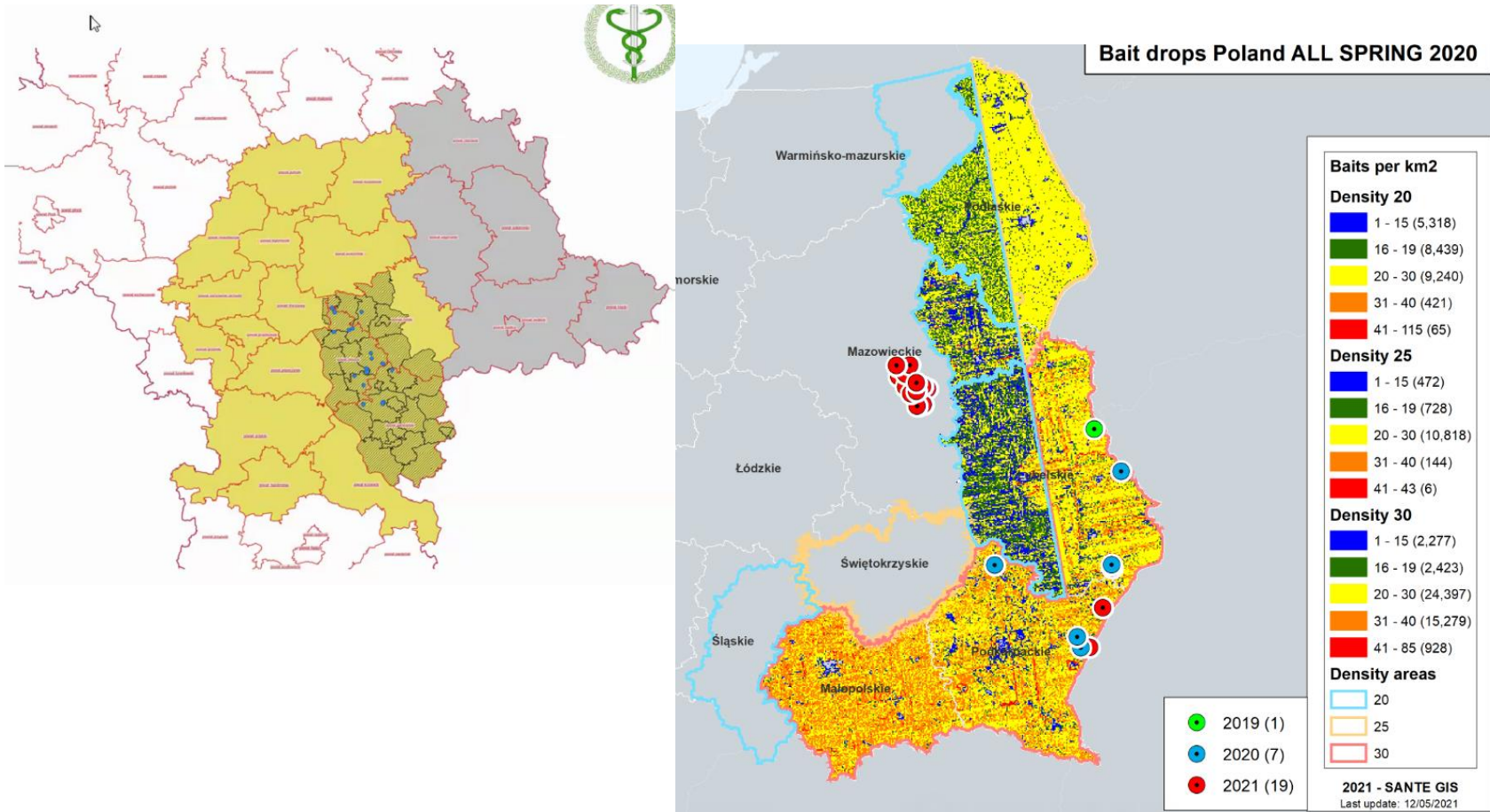
- Vaccination
  - Provisions for emergency vaccination should be established to allow for swift response to the rabies re-introduction
  - EORV
    - short-term interval baiting
    - in addition to the ongoing emergency ORV, another emergency ORV campaign in that area should be performed in late June/early July
    - EORV area should be calculated as a 50 km radius circle from the rabies cases, at least.
    - An increased bait density of up to 25-30 baits/km<sup>2</sup> in combination with reduced flight-line distance should be ensured during the EORV
    - Manual distribution only as a complementary method to aerial distribution

# Recommendations

- Vaccination

- EORV should be followed by the regular ORV
  - the first one to be implemented in autumn
- regular ORV
  - the ORV area presented for the period 2021 – 2023 in Mazowieckie region (protection zone + surveillance zones + 5 districts that are part of the buffer zone and were vaccinated in 2020 and 2021 as part of the approved eradication programme) should be vaccinated for at least the stated period with the normal bait density (not less than 20 baits/km<sup>2</sup>)
  - The regular ORV should cover the whole south part of the Mazowieckie region and Swietokrzkyie region to avoid possible further spread of rabies
  - These areas should be covered by regular ORV starting from autumn 2021 with the normal bait density (not less than 20 baits/km<sup>2</sup>)

# Recommendations



# Recommendations

- Vaccination
  - Immediate collation and analysis of bait distribution data after ORV campaign as well as results of ORV monitoring and rabies surveillance should be initiated
    - real-time evaluation of vaccination coverage during each campaign
    - achieved bait density on the ground
    - identification of insufficiently baited areas etc
    - corrective actions

# Recommendations

- Surveillance
  - Passive surveillance should be strengthened in Mazowieckie and Swietokrzkyie regions to ensure early detection of rabies and adapt the control measures rapidly
  - As a part of epidemiological investigation, phylogenetic analyses of virus isolates should be carried out of at least on the first confirmed cases in the region to find out the origin of the virus



# Thank you for your attention!

The working atmosphere during the mission was very good. The colleagues from Poland gave all their support and assistance to facilitate a fruitful mission. The EUVET rapporteurs wish to thank all colleagues for their support and help given during the whole mission.