



EXPERIENCE ON EPIDEMIOLOGICAL ANALYSIS AND DIFFICULTIES ENCOUNTERED IN LITHUANIA



Dr. Gediminas Pridotkas

National Food and Veterinary Risk Assessment Institute, Lithuania

Workshop on “Harmonisation of data collection on African Swine Fever
(ASF) virus” | 23-25 November 2015 | Parma



Surveillance of ASF in Lithuania

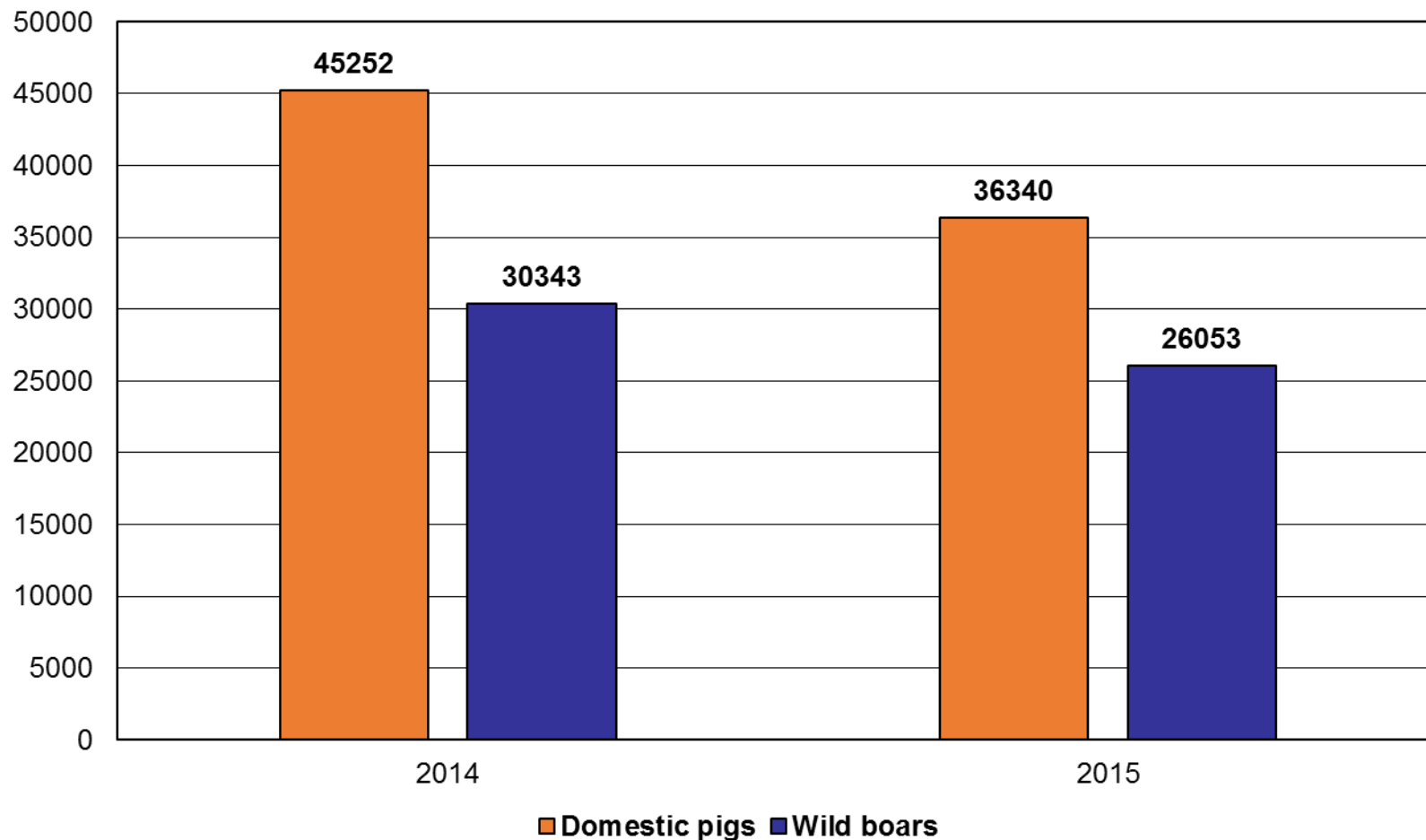
- **Methods for ASF testing in NFVRAI:**
 - Post mortem examination;
 - ELISA Ab (and possibility for ELISA Ag);
 - IPT Ab testing (since January 2015);
 - PCR;
 - Genotyping.





Surveillance of ASF in Lithuania

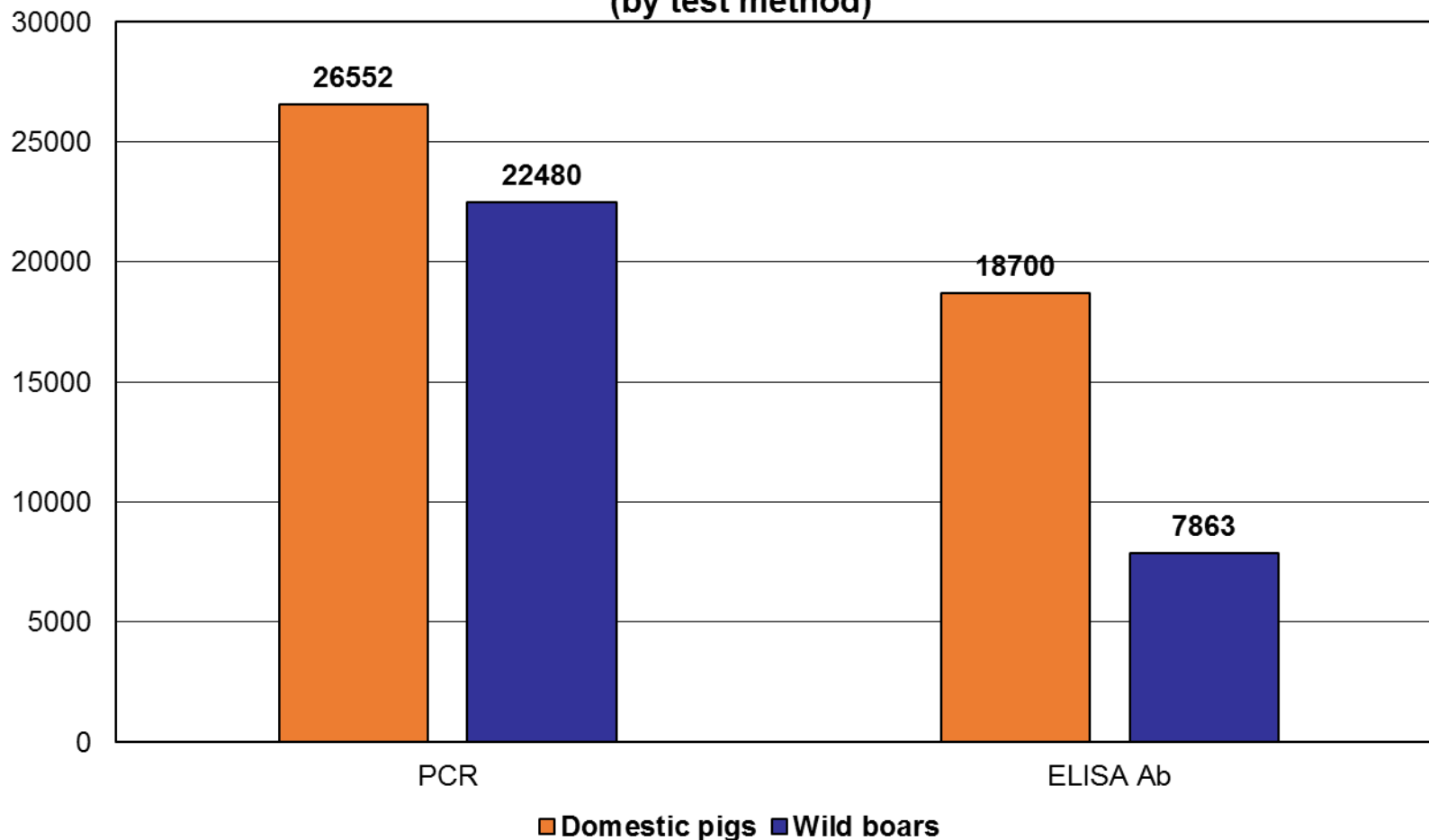
Number of laboratory tests of domestic pigs and wild boars in 2014-2015





Surveillance of ASF in Lithuania

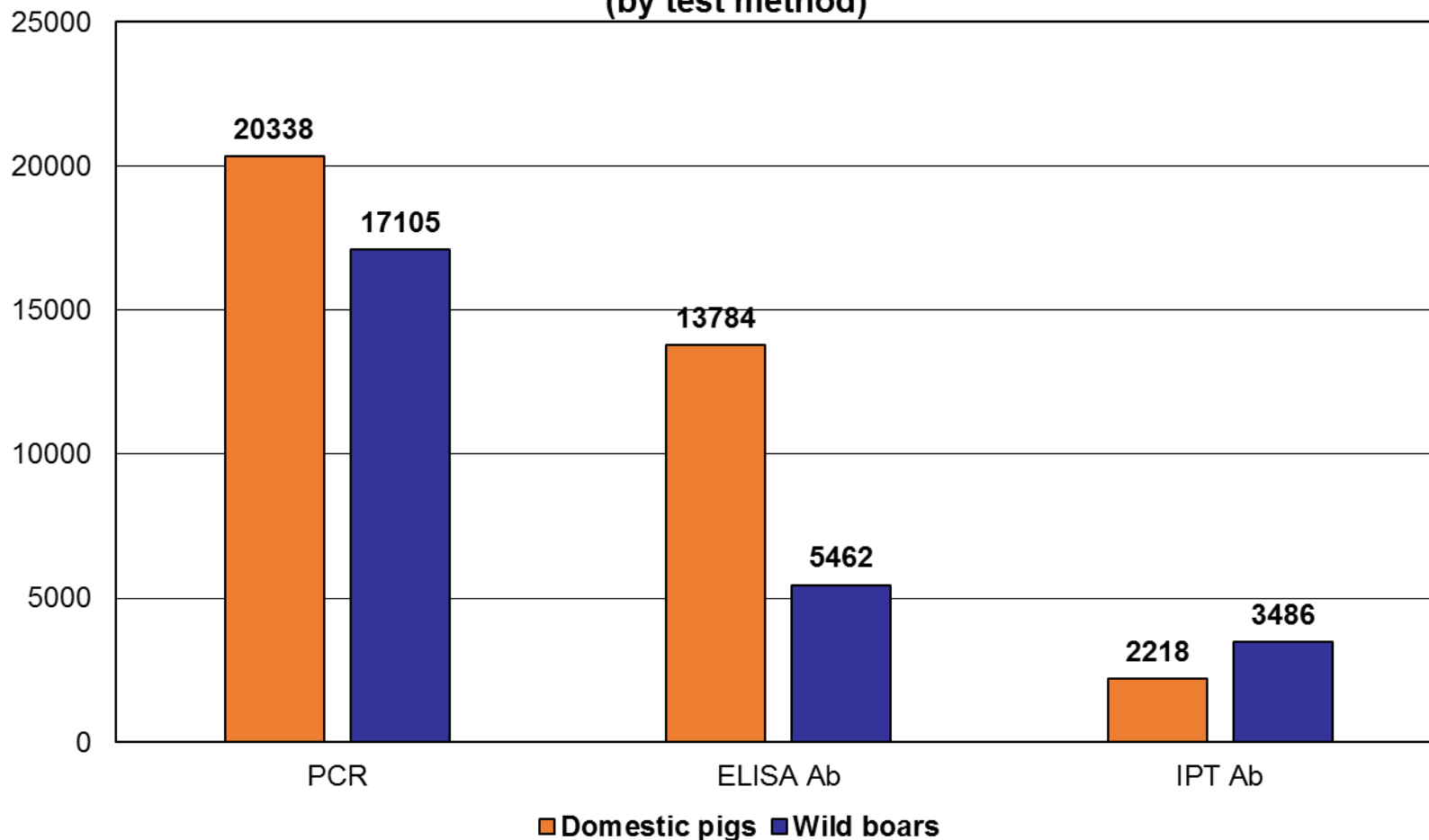
Number of laboratory tests of domestic pigs and wild boars in 2014
(by test method)





Surveillance of ASF in Lithuania

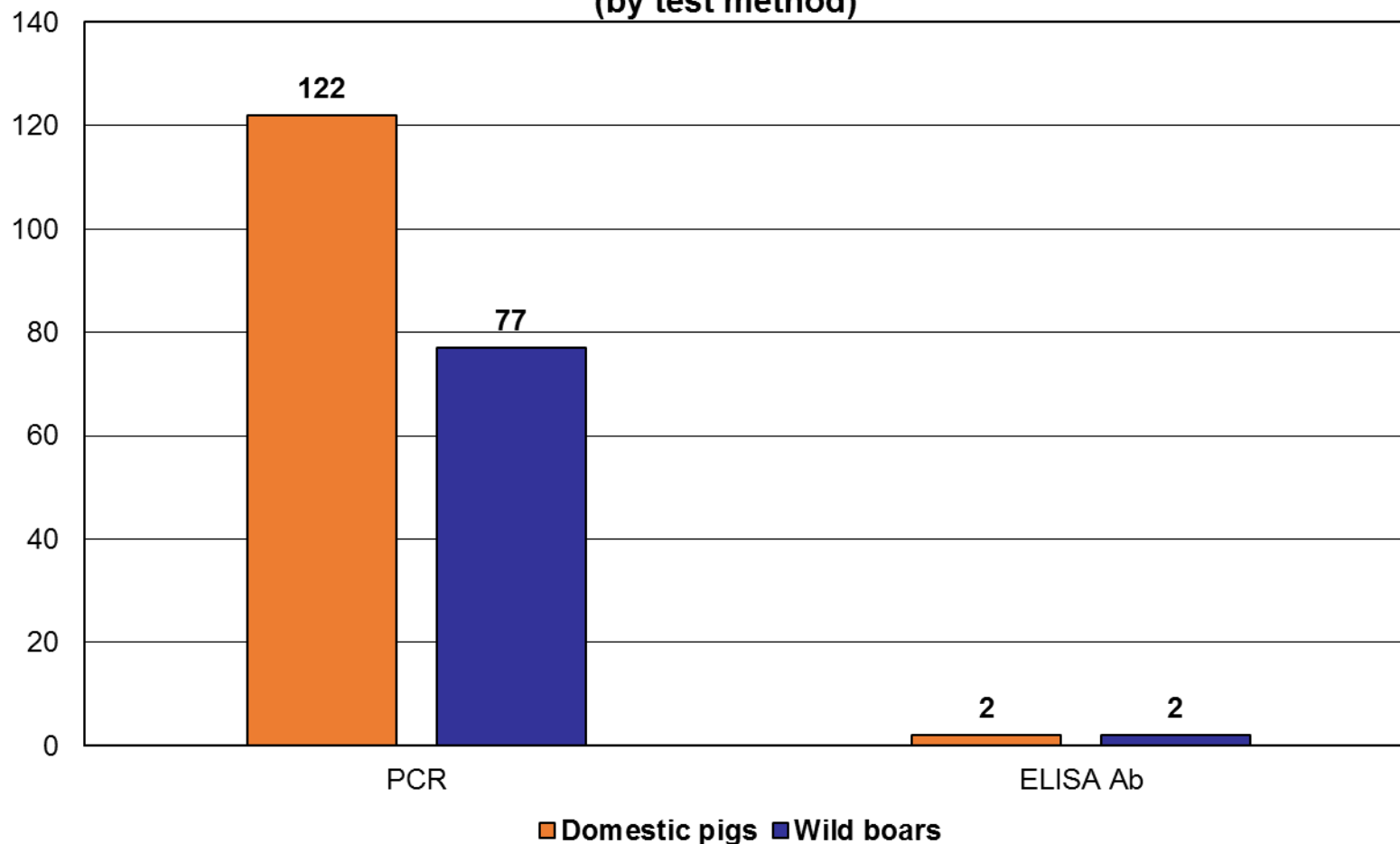
Number of laboratory tests of domestic pigs and wild boars in 2015
(by test method)





Surveillance of ASF in Lithuania

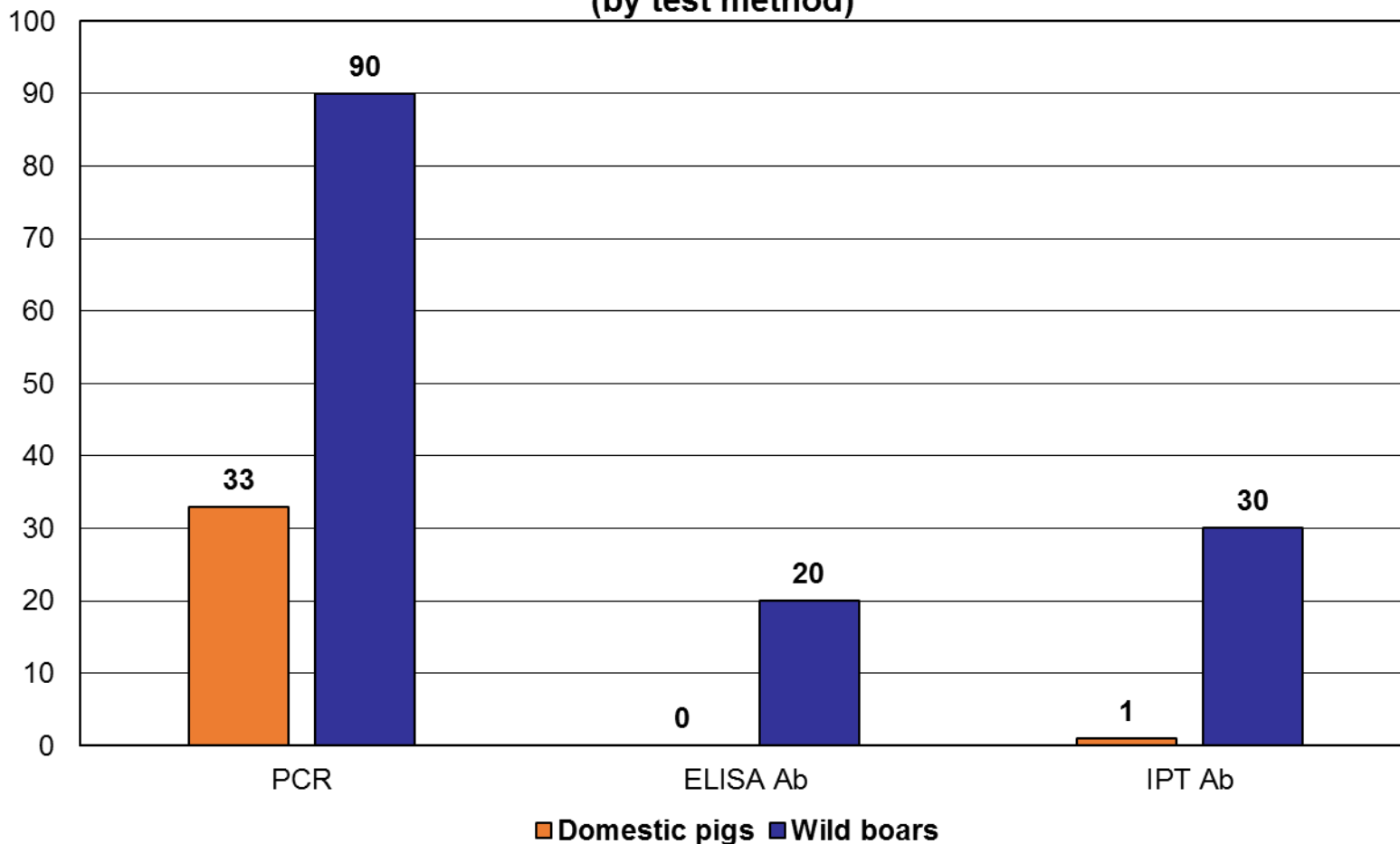
Number of positive cases of domestic pigs and wild boars in 2014
(by test method)

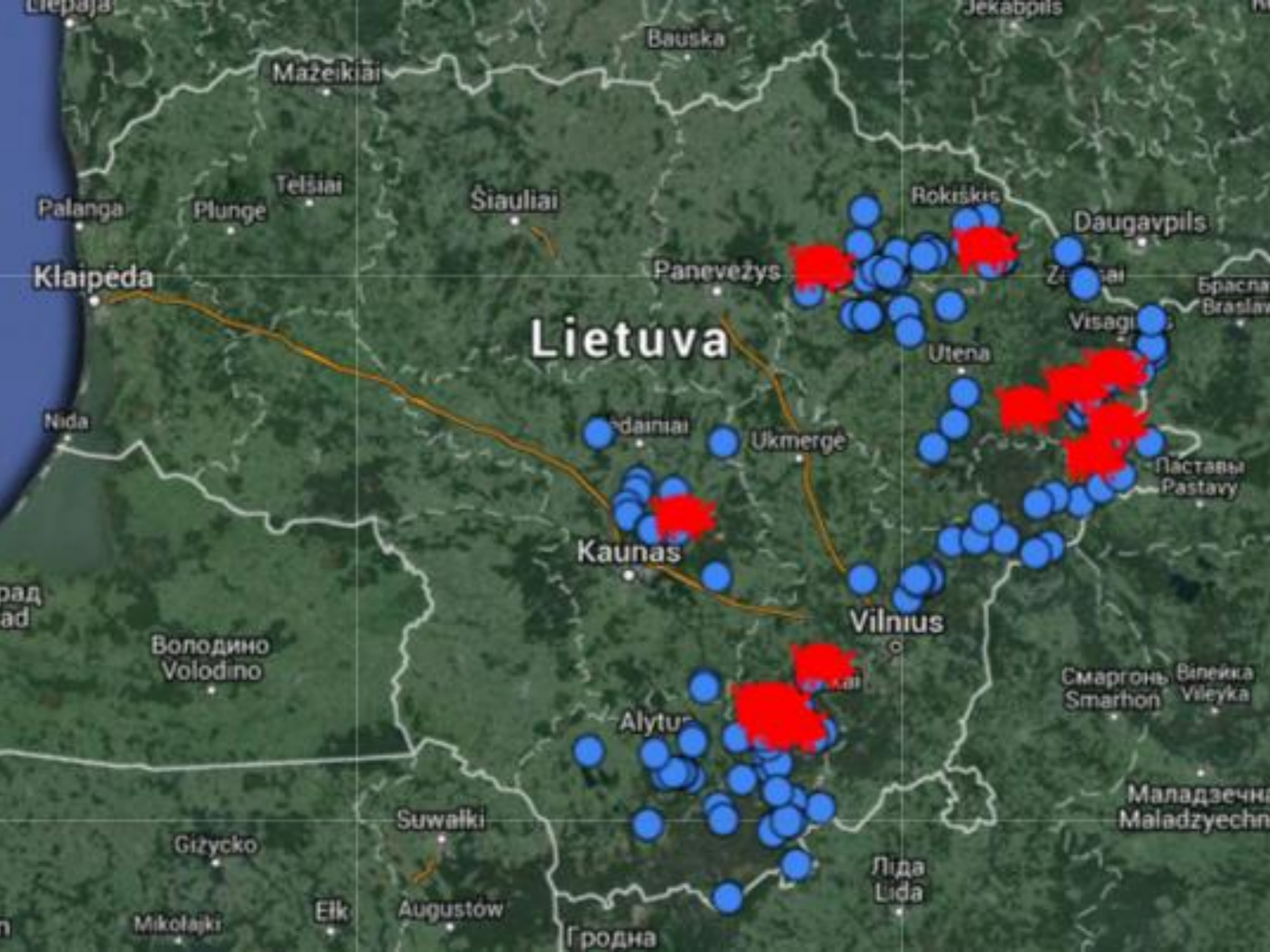




Surveillance of ASF in Lithuania

Number of positive cases of domestic pigs and wild boars in 2015
(by test method)

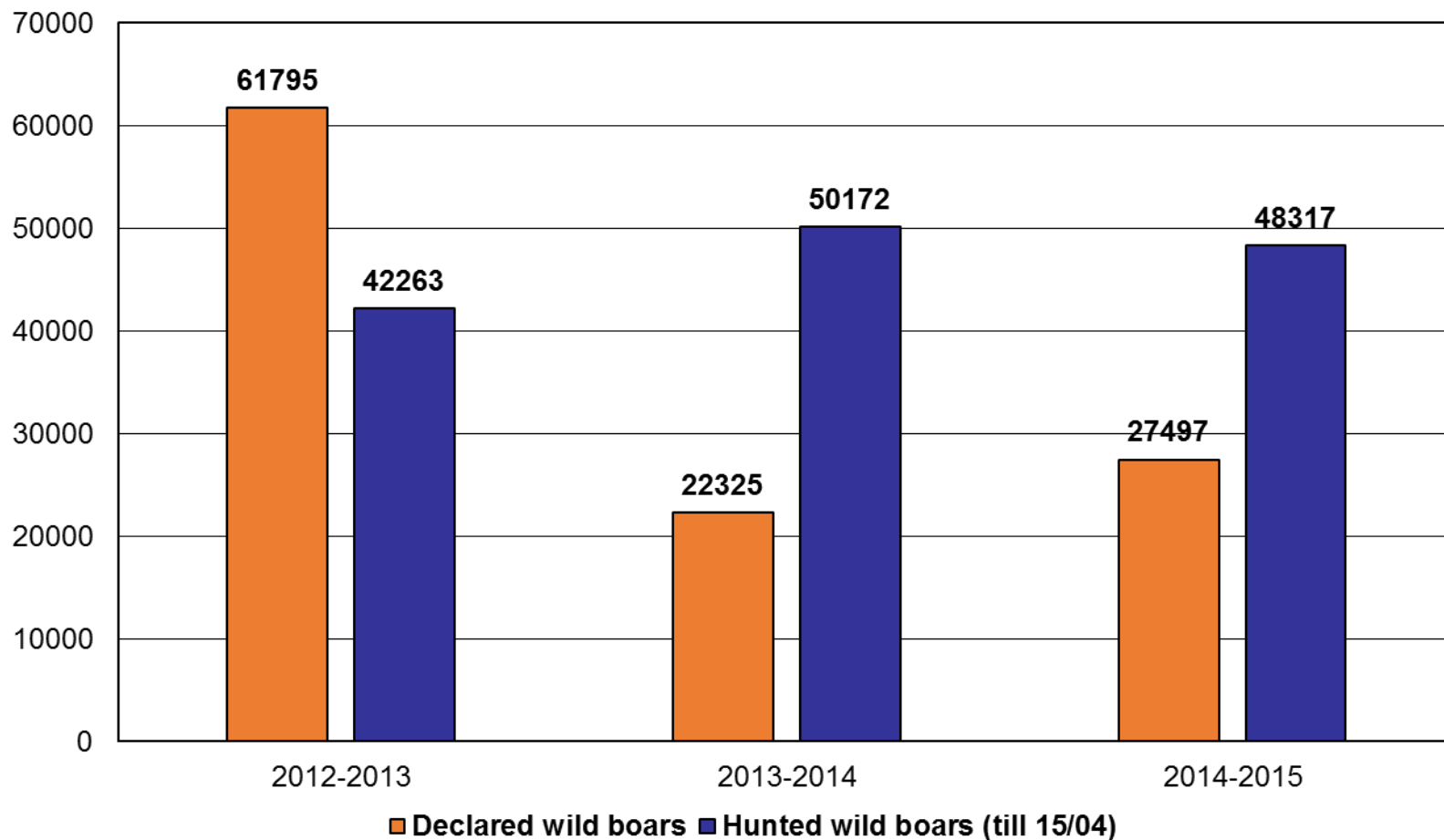






Population of wild boars in Lithuania

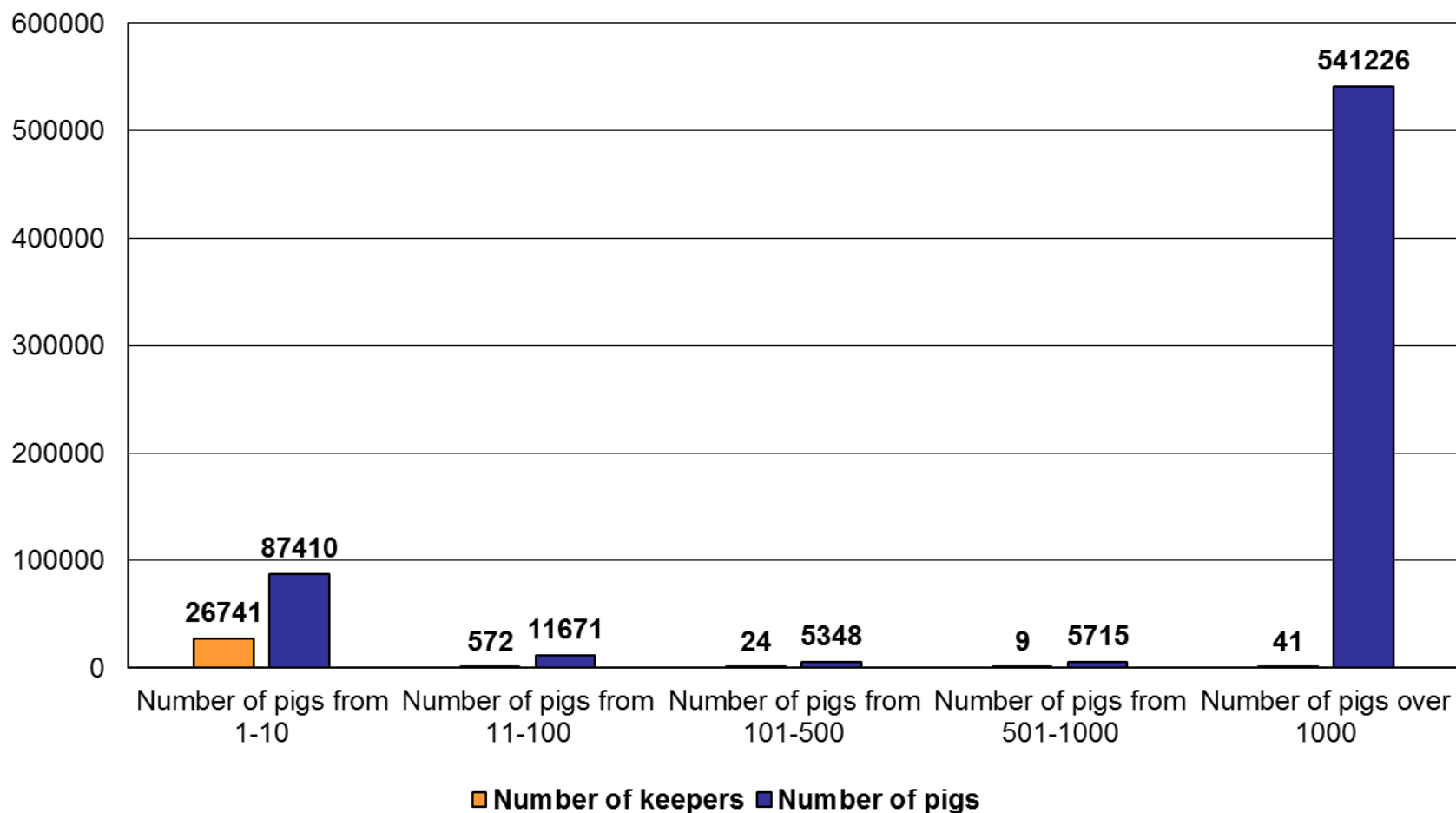
Number of declared and hunted wild boars in 2014-2015





Population of domestic pigs in Lithuania

Number of pigs in 2015 (by holding size)





Control of wild boar population

- Feeding of wild boars was prohibited by a Decision of CVO from 10/10/2014 – only attractive feeding for hunting purposes is allowed.
- Driven hunt is organized in a unit of the hunting area once per month.
- **Hunting strategy is amended** according to EFSA opinion and common strategy of Baltic States and Poland.
- Payment procedure for targeted hunting of females wild boars is adopted (from 12 month – 50 EUR, older than 2 years – 100 EUR).





Control measures – difficulties encountered

- All outbreaks in pigs occurred near places where cases of ASF in wild boar have been detected – still not clear how the virus entered into the farms.
- Lack of communication with hunters – only from the middle of November motivation for hunted females was adopted, previously – only orders have been issued.
- No information from Belarus about their findings and actions.
- More cases of ASF have been detected in hunted wild boars than in dead – not good enough established searching for cadavers.





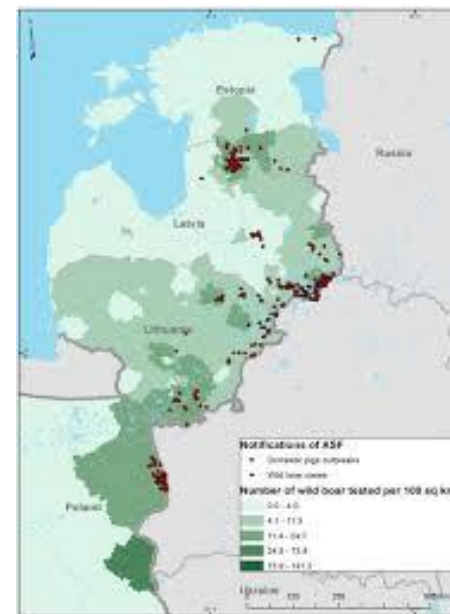
ASFV epidemiology in Lithuania

- **ASFV virulence:**
 - ASFV type II in domestic pigs and wild boars.
 - Experimental inoculation ASFV in pigs (EU-RL-ASF):
 - Lithuanian ASFV induced an acute disease;
 - ASF incubation period – 4-5 days;
 - ASF clinical signs in contact pigs – after 12–14 days;
 - 94.5% mortality;
 - About 4.5 % of ASF virus infected pigs survived;
 - ASF virus DNA was detected in tissues;
 - ASF virus was isolated from blood and tissues;
 - 33% of the pigs were seroconverted.



ASF epidemiology in Lithuania

- **Difficulties encountered:**
 - Data collection is not suitable for the quantitative studies on the epidemiology of the ASF in wild boars and domestic pigs including a spatio-temporal analysis and development of spatial predictive models;
 - Absence of modelling measures decreasing ASF virus transmission in wild boar population as part of the ASF eradication programme.





ASFV epidemiology in Lithuania

- **Questions not answered:**
 - ASF becomes “endemic”?;
 - Major risk factors of ASF sylvatic cycle and spread to new areas and farms;
 - Role of wild boar population in the spread and persistence of ASF virus in a region;
 - Correlation between ASFV virulence and wild boar mortality;
 - Survival of the virus under different environmental conditions;
 - Role of vectors.



Conclusion

- There is need to improve knowledge on ASFV epidemiology and spread in wild boar and domestic pigs populations in order to apply effective ASF elimination measures in region and to prevent spread to other EU countries.



THANK YOU FOR YOUR ATTENTION!