

GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture
Organization of the
United Nations



Standing Group of Experts on African swine fever in the Baltic and Eastern Europe Region under the GF-TADs

Expert mission on African swine fever in Romania REPORT¹

❖ **Period:** 11 – 14 December 2017

❖ **SGE Experts:** Klaus Depner (FLI, Germany, team leader), Alexey Igolkin (ARRIAH, OIE Collaborating Center, Russian Federation), Sergei Khomenko (FAO, Ukraine), Marius Masiulis (Veterinary Services, Lithuania), Ago Pärtel (consultant, Estonia)

❖ **Terms of Reference**

1. The experts should perform on the spot visits (as detailed in the Annex of the ToRs) in order to gather data and be in a position to formulate recommendations on disease management.
2. The experts should work with the Veterinary Services in order to determine the following aspects:
 - a. If African swine fever (ASF) is occurring in domestic pigs (both in commercial sector and the so called back yard sector) and extent of the areas of occurrence.
 - b. If ASF is occurring in wild boar and geographical distribution of ASF in wild boar.
 - c. Formulate hypothesis on the drivers of ASF occurrence.
3. Propose measures intended for the control and eradication of ASF under local conditions, in line with the OIE International Standards.
4. The experts should report to the Standing Group of Experts on African swine fever in the Baltics and Eastern Europe under the OIE/FAO GF-TADs and to the Veterinary Services of the country being visited. A written report should be produced for each mission.

❖ **Itinerary of the mission**

The expert mission on African swine fever (ASF) in Romania operating under the Standing Group of Experts on ASF was conducted in the County of Satu Mare. The proposed itinerary allowed the mission team to have access to the most critical issues related to ASF in the County of Satu Mare.

The types of visited facilities were the following:

- Veterinary Service at local level
- Local Veterinary laboratory

¹ *Disclaimer:* The views and recommendations expressed in this document are those of the independent experts and may not in any circumstances be construed as the official position of their organisation, nor of the EC, OIE or FAO

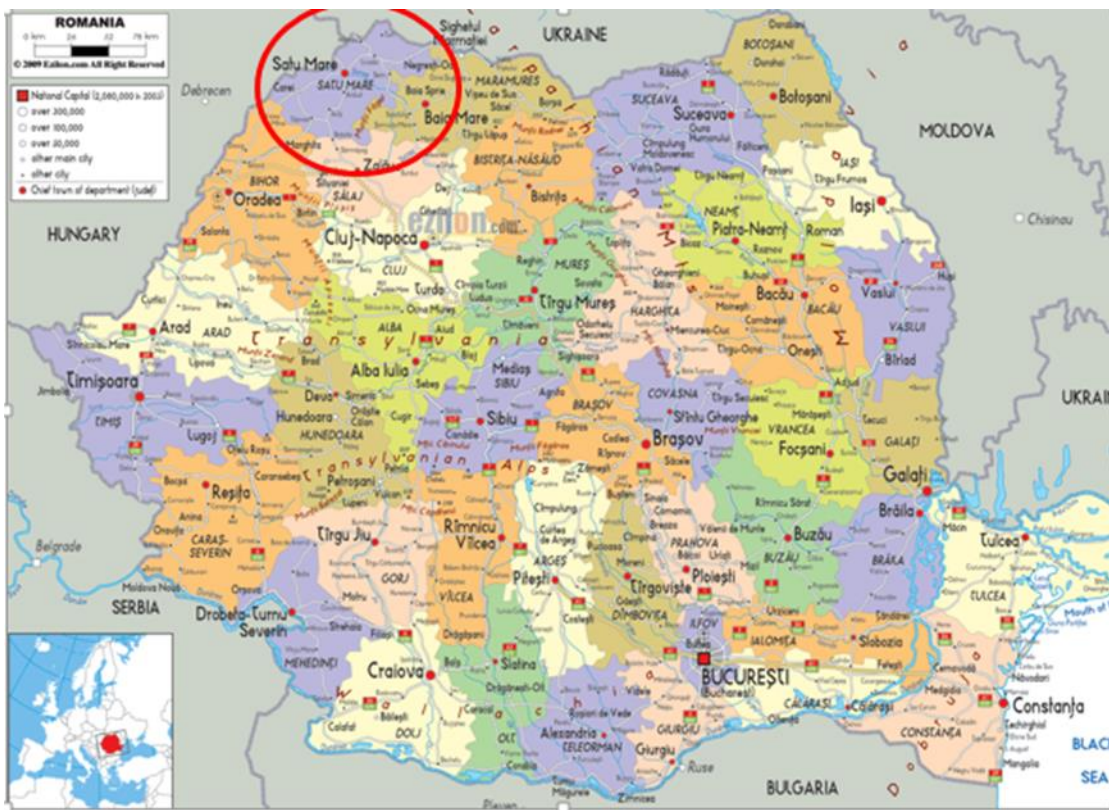
- Large commercial farms
- Backyard farms including the index farm which had ASF
- Local hunting association

The summary itinerary of the mission is shown below:

- 11 December: Arrival in Satu Mare
- 12 December:
 - Opening meeting at the local veterinary office in Satu Mare
 - Visit of the regional diagnostic laboratory in Satu Mare
 - Visits of professional and non-professional pig holdings in the county of Satu Mare
- 13 December:
 - Visit of a hunting association in the county of Satu Mare
 - Closing meeting
- 14 October: Departure from Satu Mare.

The names of persons participated in the meetings are listed in the [ANNEX 1](#).

Region visited: Satu Mare County



The mission team visited Satu Mare County which is located in north-west of the country bordering Ukraine and Hungary.

❖ General information

Romania was free of ASF until July 2017. The first outbreak (primary outbreak) was reported in a backyard holding with four pigs in Satu Mare County, near to the border with Hungary and Ukraine on 31st July 2017. A second outbreak was notified on 1st August, also in a back yard holding with three pigs located in the same village less than 1000 meter away from the first holding. So far, ASF has not been detected in the wild boar population in Romania or in other pig holdings.

Romania had no surveillance programme for ASF until 2012, when the first contingency plan has been prepared. In 2013 and 2014 two national simulation exercises were conducted targeting the infection in domestic pigs (2013) and in wild boar (2014). Until 2015 ASF surveillance has been performed only in 8 Counties bordering Ukraine and Moldova. These Counties were considered to have the highest risk for ASF virus introduction. The surveillance consisted in testing all hunted wild boar (active surveillance) and testing dead and sick animals (passive surveillance of domestic pigs and wild boar).

The total area of Satu Mare County has 4,418 km². The County is bordering Ukraine (ASF infected country) and Hungary. Pigs are bred in 15 commercial farms with 82000 animals (size of farms varies from 200 - 30000 pigs) and in around 15000 non-professional backyard holdings with about 67000 pigs (in average 4 pigs per holding, depending on season). There are also 20 to 25 type A pig farms keeping 5 to 15 pigs each. The estimated wild boar population in the County is around 2000 animals (pre-reproductive estimate).

Rearing pigs in non-professional holdings is very common and tradition in the rural areas in Romania. This type of rearing is still a significant part of the agricultural practices. It represents an important if not the only source of meat supplies for the population in the countryside and often generates a valuable cash income. Apart from that, backyard pigs might also be fed with leftovers from the kitchen as well as with fresh cereals and grass in summer. However, swill feeding is forbidden in Romania and enforced by the national legislation. But even if this is foreseen by legislation, it is difficult to control. Backyard pigs usually are not slaughtered in abattoirs, but are slaughtered at home. These home slaughtering is usually performed around Christmas time or whenever new meat supplies are needed. Traditionally, backyard pigs are traded either on free markets or by direct contact of the owner with potential customers.

Despite their average small size and pig density and therefore their apparent unimportance, backyard holdings can play an important role in the dynamics of a potential ASF epizootic.

❖ Findings

During the meetings representatives of the national and regional veterinary services of Romania and Satu Mare presented information about the pig sector, the wild boar population, the biosecurity requirements, ASF surveillance and control strategy. In addition explanations were given on the chronology of events of the two ASF outbreaks, the actions taken by the local veterinary service, as well as the results of the epidemiological investigations.

Situation related to the domestic pig sector

The Government Decree 830 from 2016 enforced the ASF strategy for Romania. Clear biosecurity requirements for non-commercial (backyard) pig holdings have been enacted. In the 8 endangered Counties along the northern and eastern borders passive ASF surveillance for domestic pigs has been introduced in 2017; so far 3636 samples from domestic pigs have been tested with negative results. However, outlining a clear separation between commercial and non-commercial (backyard) farms is still to be legally resolved. The passive surveillance for domestic pigs in the 8 endangered Counties was actually enforced by ANSVSA order from 07.06.2017 outlining criteria for sampling (aborted piglets, dead animals

with pathological findings, samples from dead pigs when increased mortality is registered). However, the criteria related to the increased mortality are difficult to be followed and do not ensure early detection of ASF infection as ASF does not give rapid increase in mortality.

The management and private veterinarians at the visited commercial pig farms were well informed about the ASF situation and aware of biosecurity requirements. The general management and implemented biosecurity measures were at a satisfactory level. However the farm management was not aware of any eradication measures to be applied on the farm after outbreak confirmation. ANSVSA explained that all required actions would be undertaken by the Local Disease Control Centre formed by the Committee for Emergency Situations. In ANNEX 2 more details are given concerning the two commercial farms visited.

Following the epidemiological investigations conducted by the Romanian Veterinary service it was concluded that ASF virus might have been introduced to the index holding during the period 21-24 July 2017. Tracing the exact sources of infection was not possible. Most probably swill feeding with contaminated meat or meat products originating from Ukraine could have been the source of infection. The second outbreak has been caused most probably by a mating boar which came from the first outbreak holding.

Around 60 days after cleaning and disinfection three sentinel pigs were placed in each of the affected backyard holdings. The sentinel pigs were regularly checked by clinical examinations and laboratory testing. None of the sentinels became sick or seroconverted within 45 days (date of visit by the mission team).

Situation related to wild boar

Pre-reproduction population of wild boar in Romania in spring 2017 was estimated at over 107000 individuals. Latest hunting statistics for the season 2016/2017 shows that out of 39000 planned, about 33000 were hunted, e.g. the actual hunting rate was about 33% of the spring population. Plans for the season 2017/2018 foresee increase of the annual hunting rate to 46% and the intention is to bring the pre-reproduction numbers to 47000, which is regarded as optimal. Higher hunting rates are proposed for the counties at risk of ASF introduction located at the borders with infected countries (Ukraine and Moldova).

Romania has 2151 hunting grounds, occupying 2205000 km². Satu Mare County has 49 hunting grounds with a total surface of approximately 4000 km², managed by 11 legal users. According to the latest census (spring 2017) 2249 wild boar have been estimated in Satu Mare County (approximately 0.5 animals/km² of the total county area). During the last hunting season (August 1 – February 15) 47% of the 2016 spring estimate were harvested, the plan for the ongoing season is to increase hunting rate to 51%. The statistical data indicate that optimal population for Satu Mare is estimated to be 4 times lower than current numbers, but it is not clear during which time span this target is expected to be reached.

The biggest local association of hunters and fisherman visited by the mission team has about 500 members and manages 23 hunting grounds with a total area of 180000 ha. The wild boar population consist of about 600 animals, of which slightly less than half are harvested lately. Numbers of wild boar have been increasing in the last years and the hunting bag grew up as well. The association members and gamekeepers jointly conduct spring census (February -March) using a combination of observations at the feeding locations and drives. Hunting quotas for the next season are identified by the association members. Both census data and suggested quotas are reported officially in April and then approved by the forestry service. Normally no problems or disputes arise over those figures. The hunting management is typical for temperate forest conditions with provision of supplementary feeding and hunting from towers or with driven hunts. Estimated 28-36 tons of feed (out of total 80 tons) are distributed as supplementary food specifically for wild boar during 5 winter months. Hunting grounds typically have 6-7 feeding locations, some have just one. Hunting would not be possible without supplementary feeding, as it makes animals accessible and reduces their home ranges. The association gains some income from international tourism and wild boar hunting, so they are interested to keep the diseases, particularly ASF out of the population.

The Association has two big cold storage facilities and a few smaller ones, scattered over the hunting grounds. Total carrying capacity of all the facilities is 30 animals, which is more than enough for a normal hunt during one weekend. However, extra efforts, time and resources are required from hunters to transport carcasses and comply with other ASF related biosecurity regulations.

The members of the hunting association are aware of the ASF situation and of the economical losses, which would follow after detection of the first case in wild boar. However, despite the good awareness it has been noted, that the hunters are not very well informed on the ASF strategy, which would be applied after the first case has been detected.

The association is already involved in active surveillance, providing samples from all hunted wild boar to the veterinary authorities. No dead wild boar has been reported so far, probably because of big scavenging pressure in the area. However, hunters and gamekeepers are well informed of the need to report any dead wild boar found. At the moment everything is managed with own finances: e.g. active search of dead wild boar, sampling, cold storage facilities, transportation of samples, etc. No financial support is obtained from the government.

Regional Veterinary Laboratory

The regional veterinary laboratory of Satu Mare is one of nine regional laboratories performing ASF diagnoses in Romania. The lab is accredited for conducting serological tests (ELISA) and genome detection (PCR). The regional laboratories are coordinated by the national reference laboratory in Bucharest, which is linked with the regional lab electronically.

Every year the national reference laboratory in Bucharest participates in the international comparative tests for ASF organized by the Community Reference Laboratory (CISA-INIA, Spain). The national reference laboratory in Bucharest organizes similar ASF ring trials with the 9 regional laboratories.

The samples sent to the lab are accompanied by a uniform form. This document is filled in by a veterinarian (in case of samples from domestic pigs) or by an authorized person from the hunting association (in the case of wild boar samples) providing all the relevant information about the diagnostic sample (location, age, sex, symptoms, etc.).

The diagnostic units performing ASF diagnosis are operating under biosecurity level 2+ (BSL 2+). There is sufficient and adequate working space (five rooms) in good operational conditions. The laboratory has recently been accredited according ISO 17025 for carrying out diagnostic work using PCR methods and ELISA tests.

The equipment has been purchased in 2006 through EU funding. Since then, due to financing shortages, no further modern equipment has been acquired. However, the equipment is sufficient and adequate for fulfilling the diagnostic tasks of ASF (PCR and ELISA). Three veterinary specialists are performing ASF diagnosis. There is no technical personnel in the laboratory. As a consequence the veterinarians perform also the duties of laboratory technicians.

Taking into account the equipment and the number of personnel, the regional laboratory can test on a routine bases up to 25 samples by PCR and 460 serum samples by ELISA during a working day. However, in the case of an ASF outbreak, the laboratory can double its diagnostic capacity.

According to Romanian legislation, laboratories are allowed only once a year to purchase reagents for their routine work. Purchasing additional reagents in case of an emergency situation becomes difficult. Furthermore, at present due to legal constraints it is not possible to recruit additional personnel or to replace employees which are, for example, on maternity leave.

ASF Surveillance

In 2016, passive surveillance was mandatory only for backyard pig farms in Satu Mare County and 103 pigs (from about 80 backyard farms) were tested. In 2017 passive surveillance was improved and commercial pig farms were also included in the surveillance program. As a result, by the end of July 2017, 191 animals were tested (147 animals from 130 backyard farms and 44 animals from 6 commercial farms).

Regarding wild boar only three dead animals (two of them were road kills) were tested for ASF in 2016, whereas 846 hunted animals were tested in the frame of active surveillance. In 2017 five dead and 867 hunted animals were tested for ASF (by the end of October). A summary of the ASF surveillance activities in Romania is shown in the table below.

| Surveillance | 2015 | 2016 | 2017 | 2018 |
|---|-------------|-------------|-------------|-------------|
| Active surveillance only of wild boar in the 8 Counties at risk (all hunted wild boar are tested serologically and by PCR) | x | X n=846 | X n= 967 | x |
| Passive surveillance of wild boar in 8 Counties at risk (all sick and dead animals are tested) | x | X n=3 | X n=5 | x |
| Passive surveillance of wild boar in Romania (sick and dead animals are tested) | - | x | x | x |
| Passive surveillance of domestic pigs from commercial farms in the 8 Counties at risk (sick and dead animals are tested) | - | - | x | x |
| Passive surveillance of domestic pigs from commercial farms in Romania (all sick and dead animals are tested) | - | - | - | x |
| | | | | |

❖ Conclusions and recommendations

The central and local Romanian veterinary service was able to manage the two ASF outbreaks without major problems. The mission team was positively impressed by the professionalism of the veterinarians of the regional veterinary service of Satu Mare. Control measures were immediately adopted according to EU legislation. No further secondary outbreaks were found indicating that ASF did not spread. By using sentinel animals in the two backyards it could be concluded that the virus has been efficiently inactivated. The epidemiological investigations in Satu Mare were carried out professionally.

However, the actual ASF threat can still be regarded as high, since further virus introductions from neighbouring infected regions (e.g. Ukraine, Moldova) facilitated by human activities (anthropogenic factors) may happen. If larger holdings would be affected or several simultaneous ASF virus introductions would occur, the capability of the local veterinary service to fight the disease might reach its limits.

According to the current national legislation it is not possible to pay compensations to hunters for their surveillance activities and carcass collection. It is a need to revise current legislation (e.g. in the framework of the co-financed program) and support hunters financially for early detection and surveillance activities.

The anthropogenic factor appears to be the main risk for ASF introduction to Romania. Therefore, farm biosecurity has to be addressed more rigorously, particularly all aspects related to human activities. Information campaigns with all stake holders (farmers, veterinarians, employees, etc.) are a vital issue. In this context, we would like to draw attention to the conclusion of the Ministerial Conference on African swine fever (particularly points 2, 7, and 8) which took place in Prague on 9 November 2017 (see [ANNEX 3](#)).

The definitions used so far to categorize pig farms as commercial farms or as a non-commercial farms may cause some confusion. For example a backyard holding with few sows which is producing and selling piglets

is rather considered to be a non-commercial farm. Therefore it is recommended to enact legal criteria for better defining commercial and non-commercial farms, based on commercial activities.

Surveillance should be focused on ASF early detection and thus considering sick/dead animals avoiding planning in advance the number of animals to be tested. In the 10 Counties at risk all dead gilts, sows and boars should be compulsory tested for ASF even if farm mortality is below the normal threshold. Additionally, in fattening farms at least two dead pigs should be tested for ASF each week. In this context the national strategy for early detection of ASF by passive surveillance needs some fine-tuning. It is recommended to revise the Order concerning ASF passive surveillance in domestic pig holdings from 07.06.2017. The EC Working Document SANTE/7113/2015 should be considered.

Passive surveillance in wild boar is weak and it should be reinforced in the areas at risk. The number of samples taken in 2016 and 2017 (3 and 5 samples) demonstrates a very low activity and it might not allow early ASF detection in the wild boar population. However, nearly all hunted wild boar in the risk areas are tested for ASF (active surveillance).

The EU recommendations on basic strategic measures for controlling ASF in the EU Eastern countries, based on the EC Working Document SANTE/7113/2015 should be used for guidance by the competent authorities to refine and fine-tune the Romanian national strategy.

Awareness campaign should be enhanced especially targeting the hunters in order to explain the ASF strategy of the EU. This strategy was developed and updated taking into account the latest findings from EFSA.

It is advisable to update and fine-tune the contingency plans for ASF, particularly for the 10 Counties at risk. Basic eradication plans for each commercial farm should be drafted with clear options for culling and disposal of carcasses, the equipment to be used and the manpower needed. The farm managers should be involved in this process.

A much closer cooperation between the veterinary service and the forestry service is advisable. Particularly it is recommended that joined strategic plans should be elaborated for areas which do not belong to any hunting association, for national parks and private or governmental land. Clear instructions regarding the responsibilities are needed (e.g. how dead wild boar would be collected, sampled, destroyed). This is particularly relevant to transboundary nature protected areas, such as Danube Delta or protected areas in Carpathian Mountains on the border with Ukraine.

Continuation of ASF training courses for veterinary inspectors at regional level as well as for hunters is recommended. In particular the epidemiological aspects of the disease should be discussed and elaborated, focussing on early detection and prevention.

The backyard sector represents a huge challenge and special efforts should be made to implement biosecurity and awareness to early detect ASF. Inspection schedule covering all holdings should be enforced. Farmers in risk area should be encouraged to enhance biosecurity practices in their holdings in order to prevent the introduction of ASF. In domestic pigs and wild boar the most effective routes of infection are through ingestion of infected material and direct contact. The implementation of biosecurity should be controlled by the veterinary service as a priority starting in risk areas.

The local veterinary laboratory is able to perform the routine ASF diagnosis. However, under crises situations the diagnostic capacity might not be enough. An upgrade of the lab with modern equipment would be advisable.

According to the current national legislation purchase of reagents and consumables can be done only once a year. Purchasing additional reagents (e.g. diagnostic kits) in case of an emergency situation becomes difficult. Furthermore, at present due to legal constrains it is not possible to recruit additional personnel or

to replace employees which are, for example, on maternity leave. It is highly recommended to find solutions for such constraints and to have on stock the necessary quantity of reagents and consumables for an ASF crises situation.

❖ **Final remark:** *The working atmosphere during the mission was very good. The colleagues from Romania gave all their support and assistance to facilitate a fruitful mission. The GF-TADs team wishes to thank all colleagues from Romania for their support and help given. All requested information and explanations were promptly received by the team.*

Furthermore the support given by the four interpreters was excellent and very professional.

Date of reporting: 20.12.2017

The report has been compiled by the team leader of the mission

ANNEX 1 - List of participants during the GF-TADs mission in Romania (Satu Mare County)

Darius Gratian FILIP: Prefect judet Satu Mare

Maior Vlonga Gheorghe: Inspector Sef-Jandarmeria Satu Mare

Colonel Nicolae DIMA: Inspector Sef -Inspectoratul pentru Situatii de Urgenta

Comisar Virgiliu PINTEA: Adj. al sefului Inspectoratului de Politie Judetean Satu Mare

Dr. Laszlo Nagy CSUTAK: Vicepresedinte ANSVSA

Dr. Marius GRIGORE: Director ANSVSA

Dr. Maria MIHAITA: Consilier ANSVSA

Dr. Nicolae DUMUTA: Director Executiv DSVSA Satu Mare

Dr. Dumitru PINTEA: Director Executiv Adj. DSVSA Satu Mare

Dr. Eugeniu AVRAM: Sef LSVSA Satu Mare;

Dr. Felix ARDELEAN: Sef SCOSA DSVSA Satu Mare

Dr. Alin GARDAN: Consilier DSVSA Satu Mare

Dr. Iuliu KATO: Sef SEICA DSVSA Satu Mare

Dr. Marius BARBUL: Coordonator PIF

Ing. Marius CIONCA: Garda Forestiera

Ing. Calin AVRAM: Responsabil vanatoare Directia Silvica Satu Mare- RNP Romsilva

Ing. Sandor BALOGH: Director AV Valea Bercului

ANNEX 2 - Commercial farms visited

- Zootehnia CIG SRL

The farm has 5400 fattening pigs which are raised in three series. All piglets were obtained from Netherlands using own transport vehicles. Pigs for slaughter are delivered to three slaughterhouses within the same district (max. distance 100 km).

The farm employs 12 people who have a ban on keeping domestic pigs enforced by contract. Hunting for employees is not prohibited and they can bring their own food to the farm. This might pose a risk of virus introduction providing the ASF epizootic situation worsens.

Grain for feed is collected from the surrounding area (300-400 ha), taken to the feed mill situated on the farm territory. After grinding and mixing with additives it is delivered through closed system to pig sheds. The grain can be additionally dried but this depends on actual humidity. In case of potential risk of feed contamination in the fields (e.g. due to the disease in wild baor), current procedure does not eliminate possibility for ASF virus transmission from fields to pigs.

The four separate pig sheds are new, properly fenced and access of employees only through sanitary block. Rest of the territory is also fenced but beside the feed mill several buildings are not directly in use. All deliveries of feed, feed ingredients, servicing transport, piglets and pigs for slaughter are operated through one gate. Disinfection basin was not in use and instead the wheels of cars are spayed with a portable device. Vehicles with piglets, pigs for slaughter and feed are weighed at the same way bridge. One single gate and undefined movement patterns on the farm territory might pose additional risk for virus introduction and spread. There is a separate gate for removal of dead pigs, performed regularly by a contracted rendering establishment.

The farm is serviced on daily basis by a contracted private veterinarian who performs necessary treatments, vaccinations, autopsies and samplings. According to ANSVSA order from 07.06.17 2 samples for ASF from dead piglets have been submitted to Satu Mare regional laboratory with negative results. Average mortality rate for pigs is 2,3%. The veterinarian confirmed three ANSVSA inspections since July 2017.

- Abomix SA

Abomix SA is a large commercial full cycle farm with 30000 fattening pigs and 2200 sows. Sows for improvement are obtained from Hungary and a separate building is used for quarantine (min 30 days). The farm sells only pigs for slaughter to 5 slaughterhouses. The slaughterhouses use their own transport and the longest distance is 300 km (Mures County).

Farm employs 68 people whose contract bans the raising of domestic pigs as well as hunting. However the employees can bring their own food to the canteen.

Feed is delivered from own feed mill situated in 23 km distance. Granulated feed undergoes sufficient heat treatment to guarantee safety.

The farm territory is clean, fenced and movement zones for live pigs and other transport clearly separated. Separate gates with proper disinfection barriers are used for live animals and other commodities. Employees can enter only through a sanitary block. Dead pigs from all age groups are collected in separate areas where autopsy and sampling are carried out. The farm has a contract with rendering establishment for regular removal of fallen pigs.

The farm has a contract with 2 veterinarians and 3 technicians, who inspect the pigs on daily basis, carrying out vaccinations, treatments, autopsies and samplings. 49 samples for ASF from dead pigs have been delivered to Satu-Mare laboratory since July (with negative results). The average mortalities in the farm is: piglets 7,8%; weaning piglets 7,5% ; fattening pigs 3 % ; replacement sows 0,1 % ; sows 0,4%.

ANNEX 3 - Conclusions from the Ministerial Conference on African swine fever, Prague, 9 November 2017

In the context of the current African swine fever (ASF) situation the delegations of Austria, Belarus, Bulgaria, Czech Republic, Estonia, Finland, Georgia, Germany, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Russian Federation, Slovakia, Ukraine and the European Commission agreed on the following:

1. Due to the nature of African swine fever (ASF), international cooperation at the highest political level is needed in order to address the transboundary nature of this disease of pig and wild boar.

2. Cooperation with neighboring countries in the framework of the Global Framework for the progressive control of Transboundary Animal Diseases (GF-TADs) should continue on technical aspects.

3. Bilateral efforts to combat the disease and prevent spread of the disease, such as the scientific and technical advice including the financial support through the EU Pilot Projects should be further explored and continued provided the level of implementation meets predefined goals.

4. New research is needed in the epidemiology of ASF addressing specifically the persistence of the virus in the environment and the transmission patterns from the wild boar.

5. The scientific assessment should review the latest relevant science and best practices in order to single out elements which contribute to minimize the movement and optimize the management of population of wild boar and therefore stop the spread of the disease, including the ethology of the wild boar and epidemiology of the disease.

6. Financial support should target the scientific evaluation of the measures applicable for ASF surveillance, control and eradication.

7. The human factor plays a key role in long distance transmission of the disease causing significant economic damages. To address it, all entry points should significantly reinforce the checks on personal goods in order to minimize their illegal movement and apply sanctions in case of noncompliance. Fight against the smuggling should be enhanced including bilateral cooperation.

8. Efforts must be increased on awareness campaigns targeting specific risk groups in order to address the risks represented by them (e.g. workers, commuters, travelers coming from countries with infected areas)

9. Legislation for ASF should be regularly reviewed based on the science and experience gained as well as the OIE chapters.