



Combined database on ASF laboratory monitoring in the Baltic States and Poland: gaps and difficulties

Workshop on “Harmonisation of data collection on
the African Swine Fever (ASF) virus”

23 -25 November 2015
Parma, Italy

MEETING FOR SIMPLIFYING AND CODING

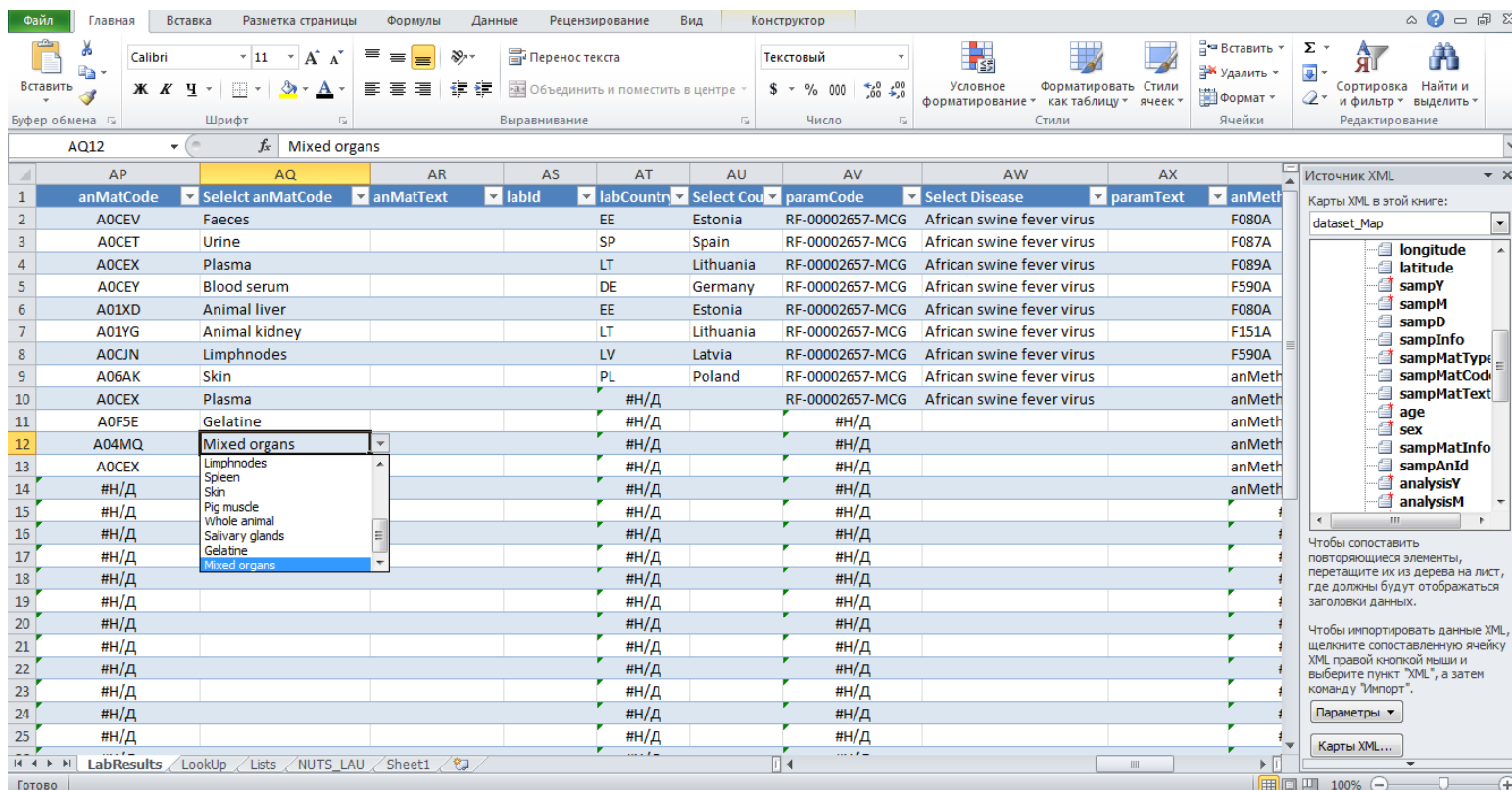
3-4 November 2015

- **Suitability of the Data Collection Framework for data collection**
- **Possible structure of the template for data collection (Elements and Codes, Terminology, Identifiers)**

Conclusions

- The DCF is an acceptable platform facilitating a harmonised data collection
- The DCF will not be used for collection of data on wild boar and domestic pig population, and on the epidemiological investigations of ASF outbreaks
- Revision of codification of samples, tests and results of analysis is needed
- The DCF will be used by MS for data collections next year

LAB MONITORING TEMPLATE



	AP	AQ	AR	AS	AT	AU	AV	AW	AX	
1	anMatCode	Select anMatCode	anMatText	labid	labCountry	Select Cou	paramCode	Select Disease	paramText	anMeth
2	A0CEV	Faeces			EE	Estonia	RF-00002657-MCG	African swine fever virus	F080A	
3	A0CET	Urine			SP	Spain	RF-00002657-MCG	African swine fever virus	F087A	
4	A0CEX	Plasma			LT	Lithuania	RF-00002657-MCG	African swine fever virus	F089A	
5	A0CEY	Blood serum			DE	Germany	RF-00002657-MCG	African swine fever virus	F590A	
6	A01XD	Animal liver			EE	Estonia	RF-00002657-MCG	African swine fever virus	F080A	
7	A01YG	Animal kidney			LT	Lithuania	RF-00002657-MCG	African swine fever virus	F151A	
8	A0CJN	Limphnodes			LV	Latvia	RF-00002657-MCG	African swine fever virus	F590A	
9	A06AK	Skin			PL	Poland	RF-00002657-MCG	African swine fever virus	anMeth	
10	A0CEX	Plasma					RF-00002657-MCG	African swine fever virus	anMeth	
11	A0F5E	Gelatine							anMeth	
12	A04MQ	Mixed organs							anMeth	
13	A0CEX	Limphnodes							anMeth	
14	#N/D	Spleen							anMeth	
15	#N/D	Skin							anMeth	
16	#N/D	Pig muscle							anMeth	
17	#N/D	Whole animal							anMeth	
18	#N/D	Salivary glands							anMeth	
19	#N/D	Gelatine							anMeth	
20	#N/D	Mixed organs							anMeth	
21	#N/D								anMeth	
22	#N/D								anMeth	
23	#N/D								anMeth	
24	#N/D								anMeth	
25	#N/D								anMeth	

EXISTING DATA SETS

Data on laboratory monitoring

- Previous data sets – Jan 2014/Feb 2015 (provided by MS for EFSA Scientific Opinion on ASF, 2015)
- Updated data sets – Mar-Sept 2015



DATA SETS COMPARISON

ESTONIA (LIMS)	LITHUNIA	LATVIA	POLAND	New template
ID	Sample code	TESTING_REPORT_NUM	date of adoption	localOrgId
Sample ID	Department	BER	Local Admin Unit1	progLegalRef
Sample No	Date of sample received	LABEL	Local Admin Unit	sampStrategy
Submission date	Hour of sample received	ID	Species	progType
No_animals	Type of samples	Date found/shot	Status (reason of sampling)	sampMethod
Test_reason	Region	Found dead/shot/car accident	Results	sampPoint
Sample_type	No of samples	Shot ill	PCR	progInfo
Method_code	Results	Age	ELISA	sampHoldingId
Method_name	ASF Ab (ELISA)	Sex	IB	sampId
Method_type	ASF Ab (IPT)	Admin Unit1	IPT	sampCountry
Animal_category	ASF Ag (PCR)	Amin Unit2	Type of sample (Blood, Serum, Lymph node, Tonsils, Spleen, Kidney, Lung, Marrowbone...)	sampArea (NUTS3)
Result		X,Y		sampLAU, sampLAU2
County		Results		Longitude
Municipality		ELISA result		Latitude
Location		serology		Date of sampling
Sampling point Name		IP serology result		sampInfo
Species		PCR virology		sampMatType
Animal_ID				sampMatCode
Sample_text				sampMatText
Result_date				Age
Test_protocol_No				Sex
				sampMatInfo
				sampAnId
				analysisDate
				anMatCode
				anMatText
				labId
				labCountry
				paramCode
				paramText
				anMethCode
				Select method
				anMethText
				resId
				specificity
				sensitivity
				resUnit
				resVal
				resQualValue
				resType
				resInfo
				ADNSId

DATA SETS COMPARISON

	Lithuania	Estonia	Latvia	Poland
Date of sampling	-	-	+	-
Date of analysis	-	+	-	-
Species	+	+	+	+
Age	-	±	+	-
Sex	-	-	+	-
Long, Lat	-	-	±	-
NUTS3, LAU1, LAU2	+ (LAU1)	+	+	+
Hunted/found dead	-	+	+	+
Type of sample	+	+	+	±
Method	+	+	+	+
Result ID	-	+	-	-

EXISTING DATA SETS (LABMONITORING)

Availability

- Date of analysis (or sampling, or submission)
- Location (NUTS3, LAU1 and LAU2 level)
- Species
- Type of sample
- Method
- Results
- 1 row= 1 method=1 result (\neq 1 animal)



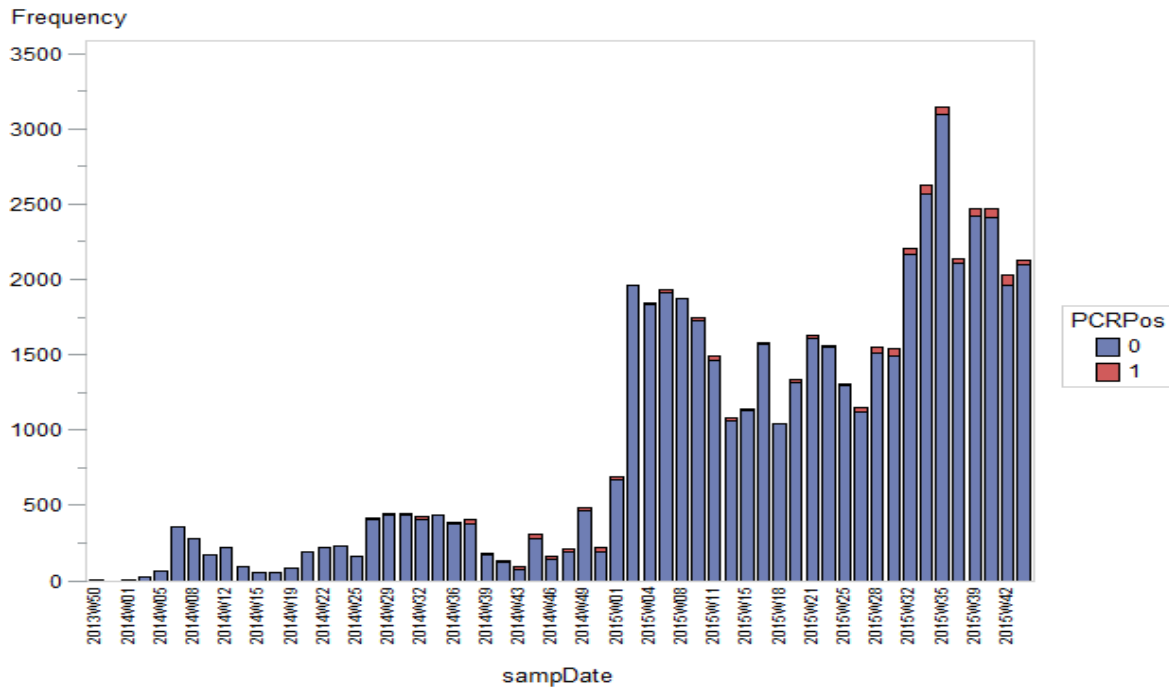
COMBINED DATABASE (LT, EE, LV)

Some examples and short overview

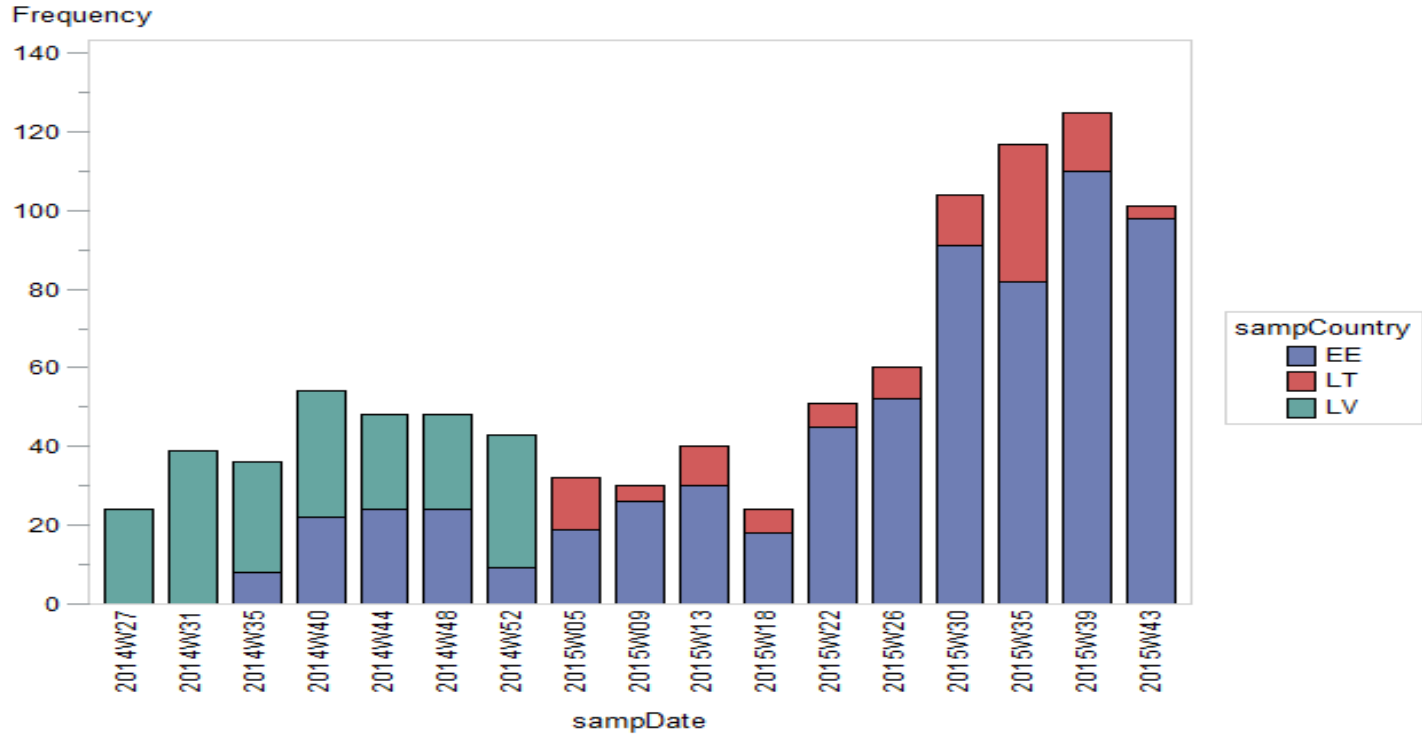
- EE, LV +LT
- SAS to perform statistical analysis



WEEK OF TESTING



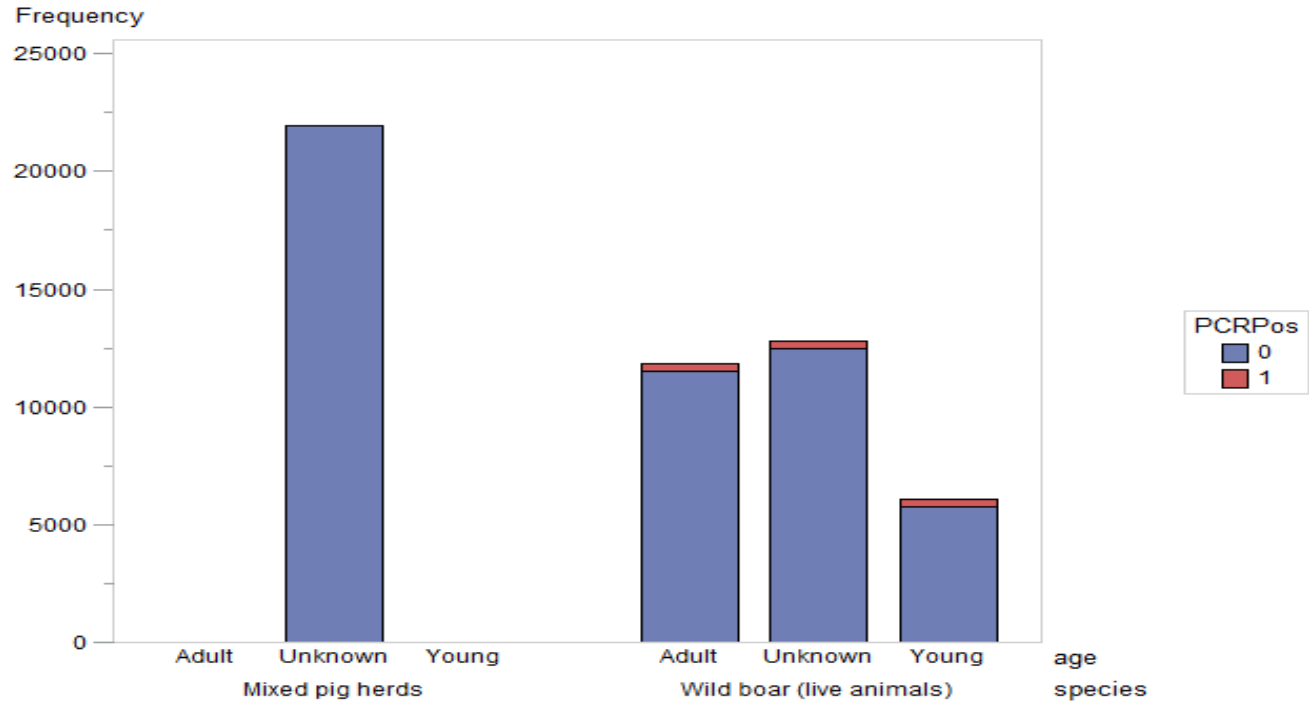
PCR POSITIVE RESULTS BY WEEK AND COUNTRY



NUMBER OF PCR-POSITIVE SAMPLES

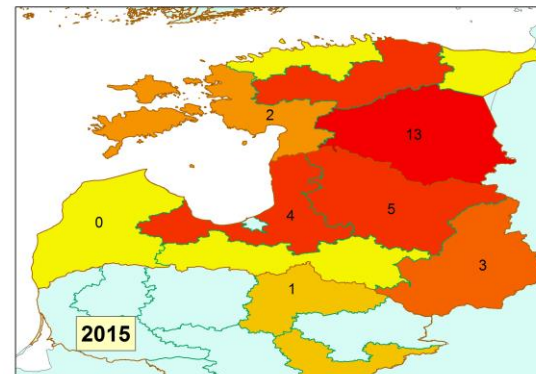
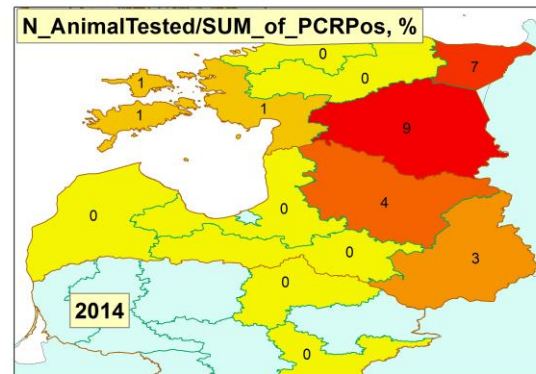
				COUNT_of PCRPos
sampCountry	species	age	sex	SUM
EE	Wild boar (live animals)	Adult	F	117
EE	Wild boar (live animals)	Adult	M	84
EE	Wild boar (live animals)	Adult	U	84
EE	Wild boar (live animals)	Unknown	F	1
EE	Wild boar (live animals)	Unknown	M	2
EE	Wild boar (live animals)	Unknown	U	159
EE	Wild boar (live animals)	Young	F	76
EE	Wild boar (live animals)	Young	M	68
EE	Wild boar (live animals)	Young	U	67
LT	Mixed pig herds	Unknown	U	37
LT	Wild boar (live animals)	Unknown	U	76
LV	Wild boar (live animals)	Adult	F	11
LV	Wild boar (live animals)	Adult	M	9
LV	Wild boar (live animals)	Adult	U	28
LV	Wild boar (live animals)	Unknown	F	1
LV	Wild boar (live animals)	Unknown	M	0
LV	Wild boar (live animals)	Unknown	U	48
LV	Wild boar (live animals)	Young	F	25
LV	Wild boar (live animals)	Young	M	25
LV	Wild boar (live animals)	Young	U	58

SPECIES DEMOGRAPHICS



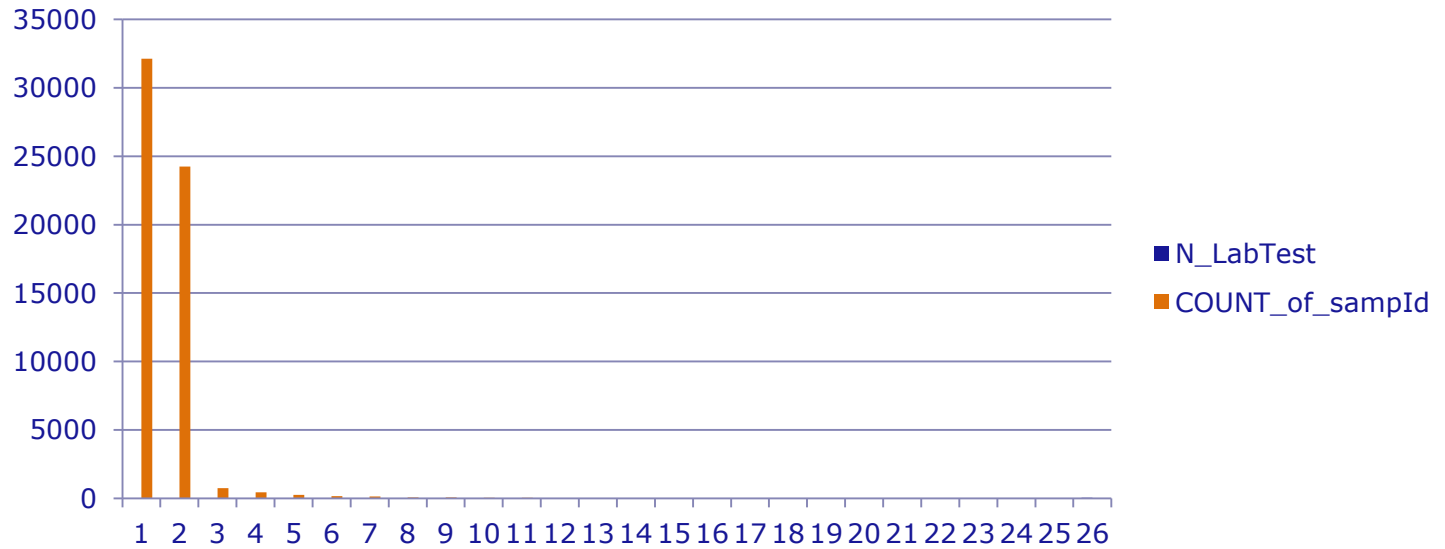
SPATIAL ANALYSIS

- NUTS3 level
- LAU 1 and LAU2 in future





SAMPLE ID



COMBINED DATA SETS

Preliminary conclusions

- Quality of data is not high enough
- Data sets have to be “cleaned out” (IDs, exclude replications) and
- Amended by additional data (if needed)
- Spatial resolution has to be improved (LAU1 and 2 levels)
- Background information is needed

PURPOSES

Project

- • Provide a descriptive epidemiological analysis, including a spatio-temporal analysis
- • Carry out a molecular epidemiological analysis
- • Assess the possible risk factors for the transmission of ASFV
- • Assess the risk of endemicity in the affected wild boar population

Workshop

- Identify what type of analysis can currently be done on the data collected by the Member States. Do they meet the objectives of the project?
- Identify which additional analysis could be useful and what data would be needed for those?
- Discuss the feasibility (additional costs?) of potential additional data collection
- Agree on a common database structure, including potential additional data





TOPICS FOR DISCUSSION

- - Data quality and reliability
- - Identify additional data needs to achieve pre-set objectives of epidemiological analysis
- - Discuss feasibility of completing database
- - Determine the availability of resources
- - New structure of database: agreement on data-model
- - Sharing of data-confidentiality
- - Future: need for epidemiological analysis workshop/training.