









# EU Reference Laboratories CSF / ASF Wild Boar Surveillance Database

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## Background (1)

CSF Outbreaks in Wild Boar 2002

- Germany: 424

– Belgium:

– Luxembourg:65

- France: 28



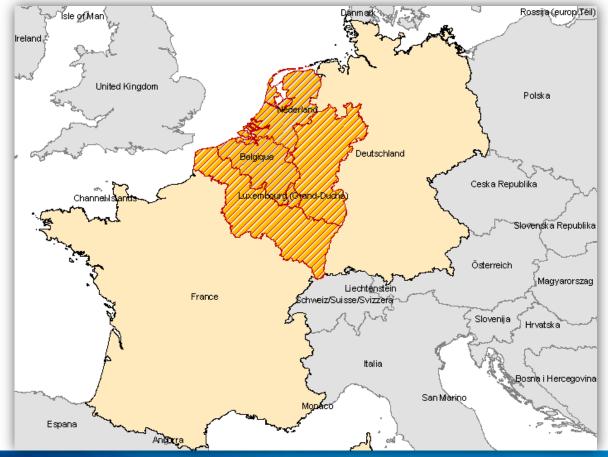








## CSF in Wild Boar Surveillance Database for Belgium, France, Germany, Luxembourg and the Netherlands

















## Background (2)

- Proposal of the European working group on CSF in wild boar to establish a surveillance data base for the transparent evaluation of the epidemiological situation in the participating countries, in a spirit of co-operation (SANCO/10420/2002), in September 2002
- Decision of the European Commission concerning the data base (2003/257/EC) in April 2003















### Taking into account

- the current ASF situation in the eastern MS and bordering third countries
- that the same animals/carcasses are tested for presence of ASF virus and antibodies as well as for CSF for differential diagnostic- and routine surveillance purposes
- the request of some participating member states







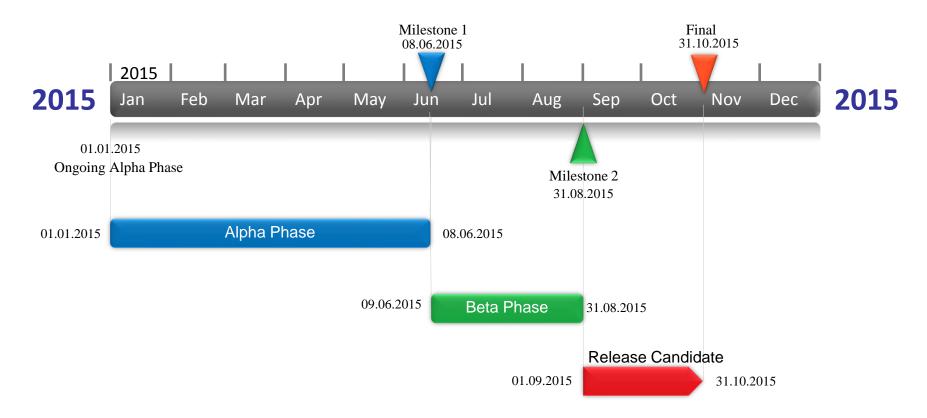








### **Timetable**



















### **CSF-DB Facts:**

- 13 participating member states
- 366 users
- 750,218 official data records since 2002
- 41,352 research data records 1999 2002
- 157 defined restriction zones and vaccination areas

08.06.2015







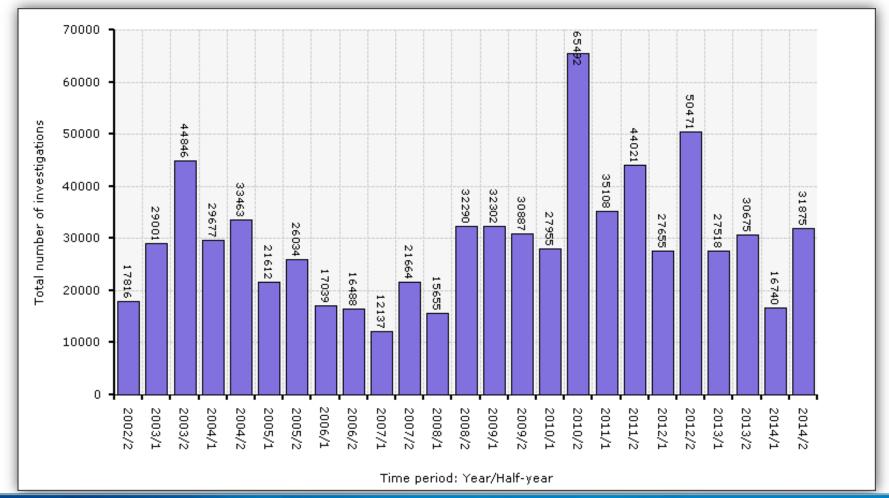








### CSF-DB Number of records from 2002-10-01 to 2014-12-31

















### Features:

- Decentralized user account management
- Data acquisition: webform | csv upload
- User defined: restriction zones, vaccination areas and customized regions
- CSF & ASF data analysis:
   Reports & Diagrams & Maps
- EURL Report (CSF)







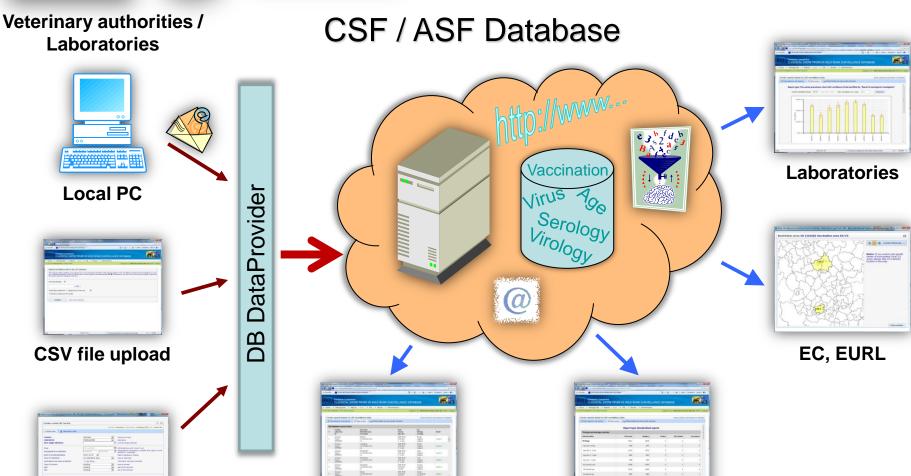








**Veterinary authorities** 





Web form



**Ministries** 















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### Public Page -> <a href="http://public.csf-wildboar.eu">http://public.csf-wildboar.eu</a>



**EU Reference Laboratory** CLASSICAL SWINE FEVER IN WILD BOAR SURVEILLANCE DATABASE



Last update: 2011-05-24 12:08

#### CSF database - Information page

Dear colleagues,

It is our pleasure to communicate important news on the 'CSF in wild boar surveillance database' of the European Union. In 2002, a working group on CSF in wild boar of the Directorate General Health and Consumer Protection (DG SANCO) of the European Commission (EC) initiated the establishment of a common database on the epidemiology of classical swine fever (CSF) in wild boar based on Council Directive 2001/89/EC, which involved the following countries Belgium, France, Germany, Luxembourg and the Netherlands.

It is the goal to extend the database to all EU member states and neighbouring countries with emphasis on countries dealing with CSF in wild boar populations. We are glad to inform you that the database is open to all member states of the European Union.

This website will provide general information on the description of the database and structure of the data upload file. Furthermore, the application form already distributed to the CVO's can be downloaded (see under related links or click here). Until the start of the database we will provide further information regarding the CSF in wild boar surveillance database.

The IT developer team would like to thank you for your cooperation and contributions. We are confident that the database will increase the transparency regarding the CSF situation in wild boar in the EU and hope that it may contribute to improve the control of the disease.

Please don't hesitate to contact us, via the email contact address (support@csf-wildboar.eu), if you have any questions or comments.

Thanks in advance for your cooperation!

Best regards, The CSF-DB development team

#### Related documents and links:

#### Common information

- Terms of use for the "Classical swine fever on wild boar surveillance database" (
- Covering letter for application form (
- Application form \*NEW Version\* (
- EU CSF-DB presentation on SCoFCAH meeting 2010-05-04 (♣)
- EU CSF-DB presentation (updated version) on an EC meeting in Brussels 2010-12-13 (►)













## Database Structure (1)

- Central <u>CSF</u> database
  - 1 record for each wild boar shot or found dead
  - Division into 3 parts
    - Unique identification of wild boar, municipality, age and date of shooting/finding
    - laboratory results (virology, serology)
    - official judgement (confirmation by competent authority)

















### CSF&ASF wild boar surveillance database Database field description for CSF and ASF data

Field name	Data type	Size	Description	Values (bold=default)
CountryCode	Character	2	Country of sample origin	see code list (ALPHA2) on the website
LabCode	Character	3	Unique identification of the laboratory	see code list on the website
ID	Character	20	Unique identification of the single wild boar (e.g. 2002/000372355)	
AreaCode	Character	8	Level 3 key (usually municipality level)	see link to the admin. units on the website
RestrictionCode	Integer	1	Type of restriction area	<ul><li>0 = no restriction area</li><li>1 = infected area</li><li>2 = surveillance area</li></ul>
HDate	Date	10	Date of shooting/finding of each wild boar	Format:  YYYY-MM-DD or  YYYY.MM.DD or  DD.MM.YYYY or  DD-MM-YYYY
CarcassCode	Integer	1	Type of carcass	<pre>0 = missing 1 = shot dead 2 = found dead 3 = shot sick 4 = road traffic accident</pre>
AgeCode	Integer	1	Age class	<b>0 = missing</b> 1 = 0-1 year 2 = 1-2 years 3 = > 2 years

















### Data Acquisition (CSF / ASF surveillance data - Web form)

Basic data Create record ase choose the laboratory | Id: «New Id» Basic data CSF Lab data Create new record Country of sample origin Germany Laboratory Please choose the laboratory Id of single wild boar: 2015TestASF5pos E.g. Id in your laboratory system, sample Id. Administrative level 3 unit; click on symbol to edit Geographical coordinates: value: click on symbol to edit. Format: YYYY-MM-DD or click on symbol to use the Date of shooting/finding: 2015-05-29 Type of restriction area: no restriction area Vaccination has been practised: CSF Lab data ASF Lab data Type of carcass: missing Age: Sex: missing Create record Confirmation of the record: No T If 'No', please remember to confirm your entries later on! Not confirmed entries aren't Country: Gern Country: Germany | Laboratory: Please choose the laboratory | Id: «New Id» ▲ ASF Lab data ★ ASF Lab data Clone or edit record Basic data 🖱 Basic data 🗳 CSF Lab data Create new record Result of virological investigation: no test done Result of virological investigation no test done Virological test: no test done Please fill in the test, that has led to the final result Virological test: no test done Please fill in the test, that has led to the final result Result of serological investigation: no test done Result of serological investigation: no test done (Indirect AB tests include e.g. IIPT and IIFT) Please fill Serological test: no test done Please fill in the test, that has led to the final result. Serological test: no test done in the test, that has led to the final result. Virus typing: not done ASFV genotype, if genetic typing has been performed. unknown CSFV genotype, if genetic typing has been performed. Sequence data available at EURL ASF DB Genome sequence, on which genetic typing was based, if Analyzed sequence of the CSFV genome: no test done analysed sequence, (http:///www.xxx): Further sequenze data: reference, genbank code .... Go to EURL DB and search for Number from CSF-DB, genebank accession number, or Highest homology found with known CSF code reference number other ID/name of most similar CSF isolate or strain, if isolate/strain: If the confirmation status 'Yes', this field can't be changed Homology in % of most similar CSF isolate or strain, if Official judgement: running investigation Homology in %: If the confirmation status 'Yes', this field can't be changed Official judgement: running investigation









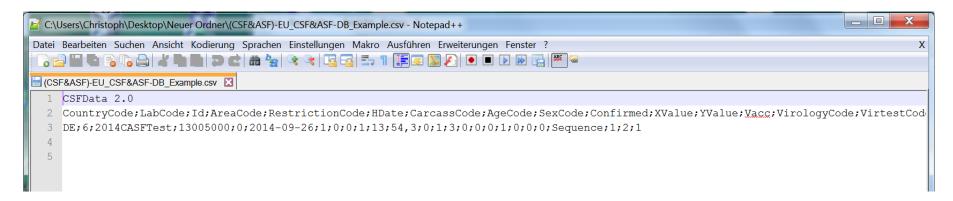






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AreaCode	Character	8	Level 3 key (usually municipality level)	see link to the admin. units on the website
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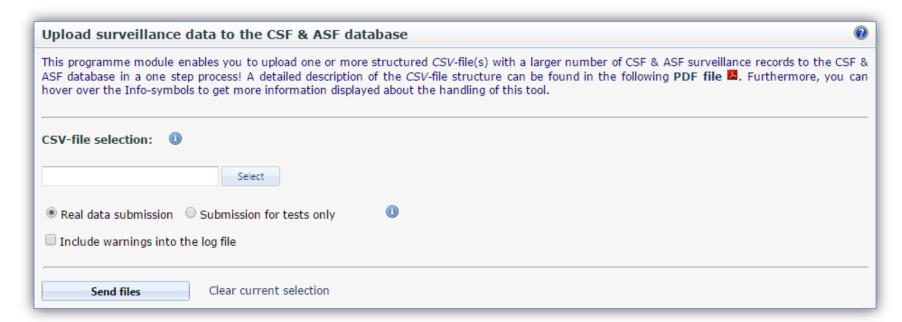








## Data Acquisition (CSF / ASF surveillance data – Upload\*)



\* Structured text file (\*.csv) exported from laboratory databases, MS Access or Excel















## Database Structure (2)

- Central <u>region</u> database
  - 1 record for each region and each period
  - Division into 3 parts
    - CSF infected region, surveillance zone or vaccination area
    - identification of region and period for which data are valid
    - geographical data (selection on the basis of municipalities)









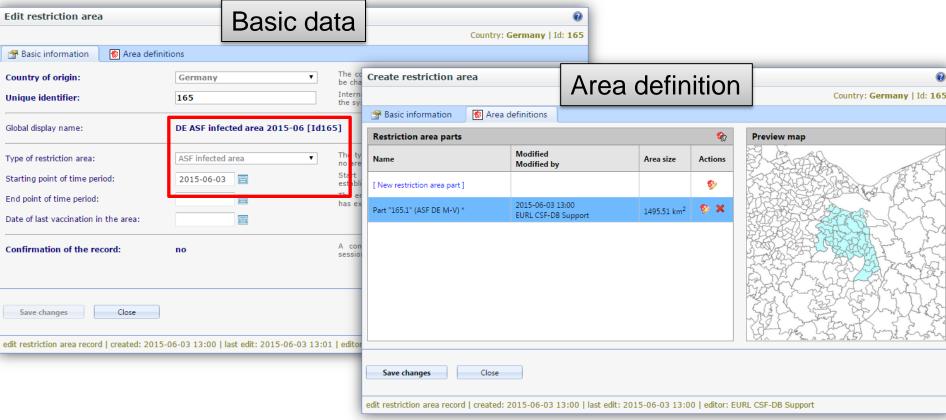








## Data Acquisition (Restriction areas)









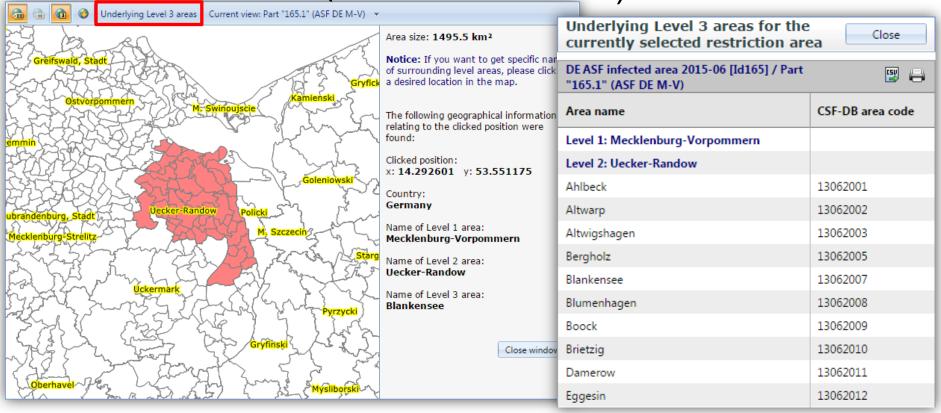








## Data Acquisition (Restriction areas)



















## **Current Restriction Areas**

#	Country Display name	Type of area Starting point of time period End point of time period	Date of vaccination Area size	Map preview
1	Croatia HR Surveillance area 2013-08 [Id164]	Surveillance area 2013-08-21 no	no 10543.8 km²	\$\$ ¢
2	Germany DE Surveillance area 2012-06 [Id163]	Surveillance area 2012-06-18 no	no 5982.5 km²	<b>⊘</b>
3	France FR Surveillance area 2011-11 [Id161]	Surveillance area 2011-11-15 no	no 4320.8 km²	S. Joseph









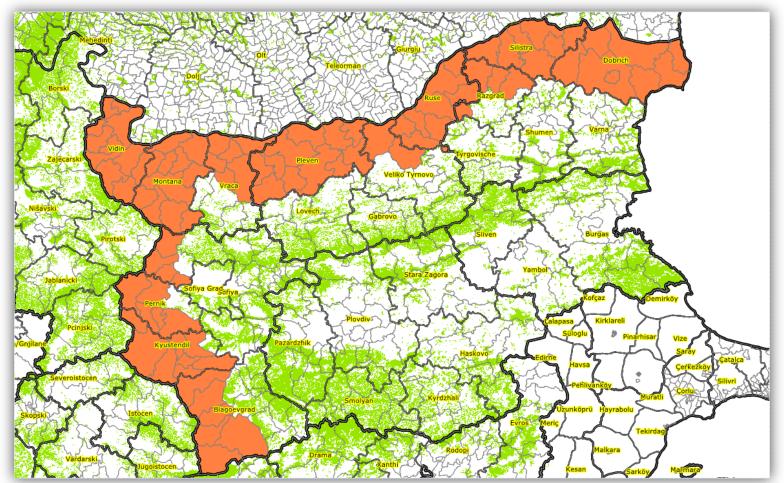








### Custom areas in Bulgaria: Intensive monitoring area



















## Query Data / Reports

- All users have access to the reports and maps
- Only confirmed data records are retrievable
- CSF/ASF data analysis
  - Record Viewer
  - Standardized Reports
  - Time Series Diagrams
  - List of available restriction areas
- Map-Explorer















## Record viewer

Record viewer for CSF	/ ASF surveillance data	Preset: Current settings
🚰 Data selection and optio	ns	
criteria and then click on the	view all <b>confirmed</b> examination results of the individual animals currently stored in the CSF data 'Create list' button (on top or on bottom) to generate the respective overview table. However, to CSF / ASF Type	provide an adequate overview and
Search mode:	ASF data ▼   ■ Use selection criteria Use ID search	
Time period from:	2015-05-06	Create list
Spatial filter:	Geographical extent defined by administrative units: [ » 1 units(s) selected. Click here to modify	<i>v</i> .]
	Germany [DE]	
	Spatial evaluation with restriction and/or custom areas: [ » 1 area(s) selected. Click here to mo	dify. ]
	DE ASF infected area 2015-06 [Id165] (ASF DE M-V)	
	Please be patient! Because of the spatial filter it could take longer to finish the pro-	ocessing!









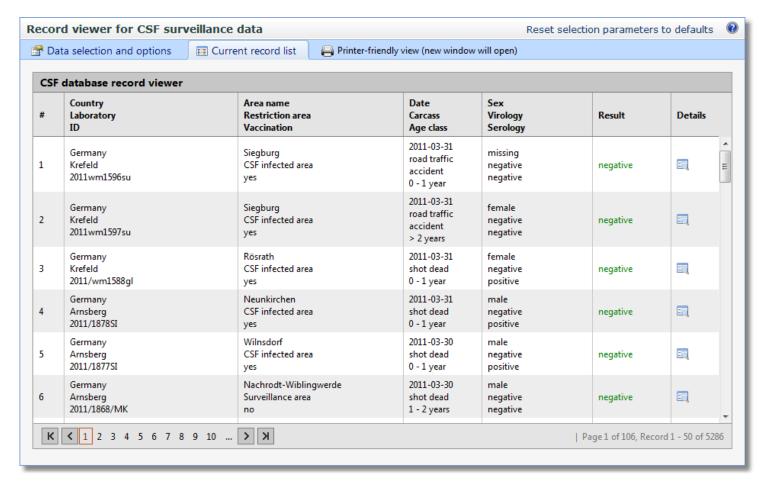








### Record Viewer









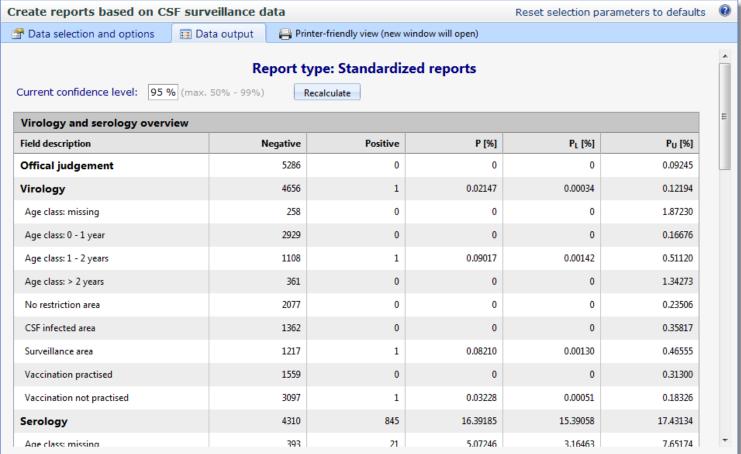








## Query data – Data Analysis









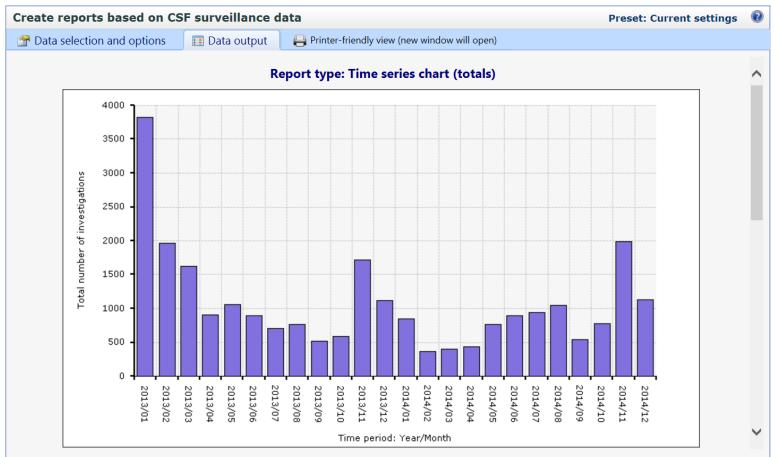








## Query data – Data Analysis









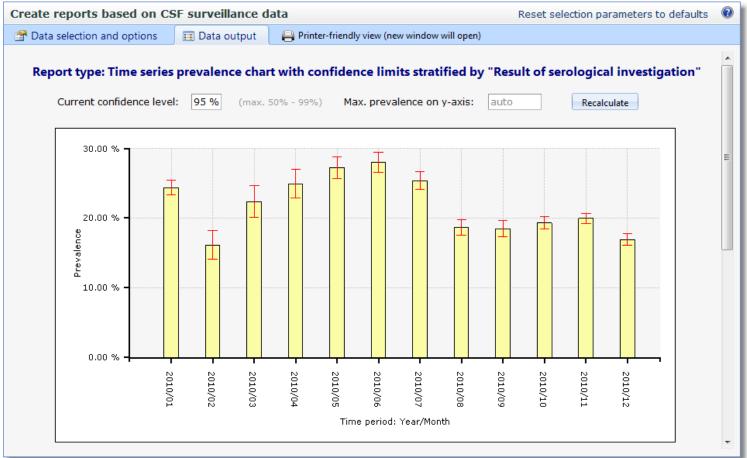








## Query data – Data Analysis











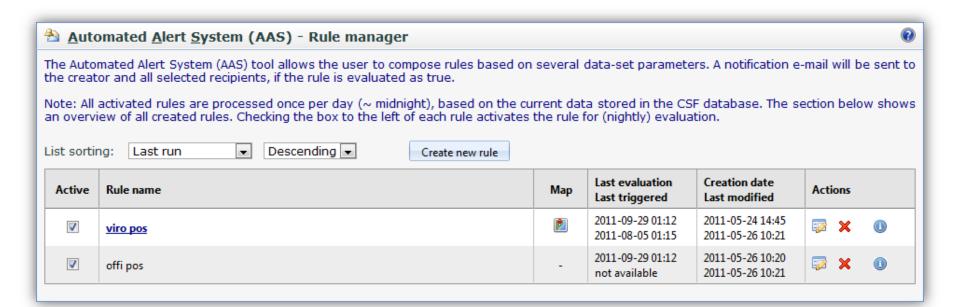








## Automated Alert System









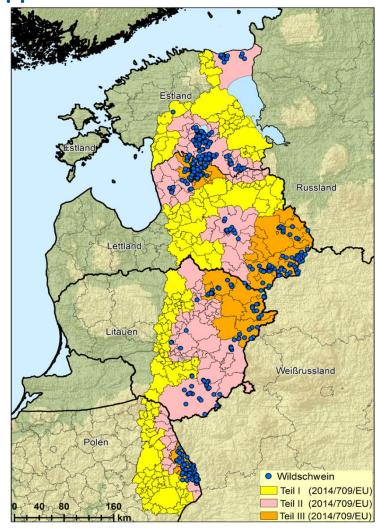








## Maps - Motivation -



Source: ADNS data (04.06.2015)













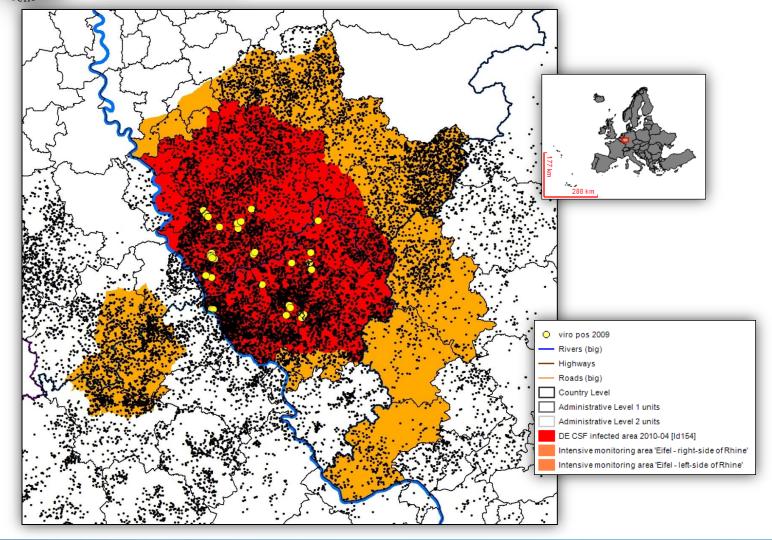
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#### Bundesforschungsinstitut für Tiergesundheit

Federal Research Institute for Animal Health











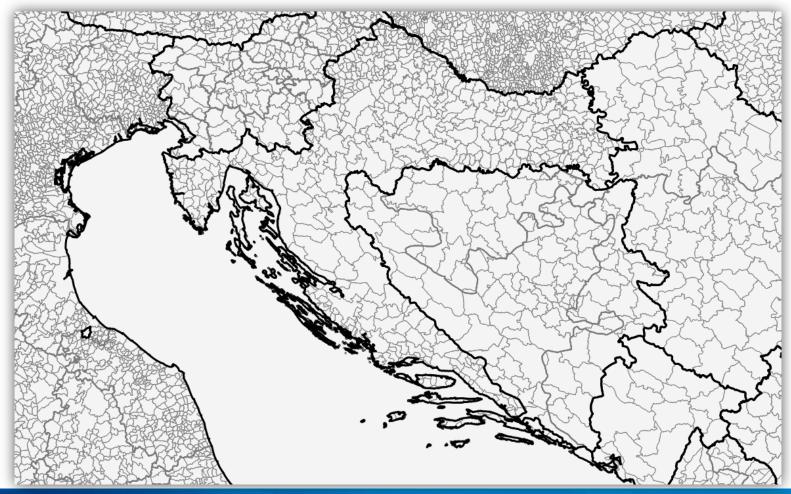








## Admin Level 0-3











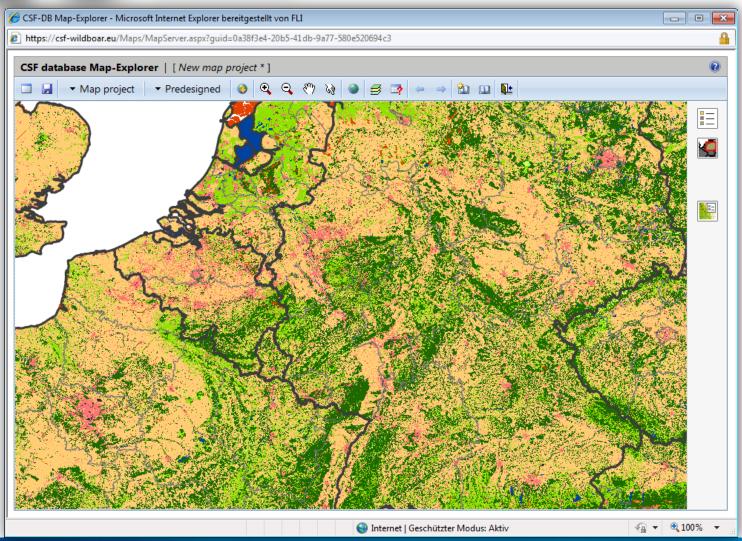






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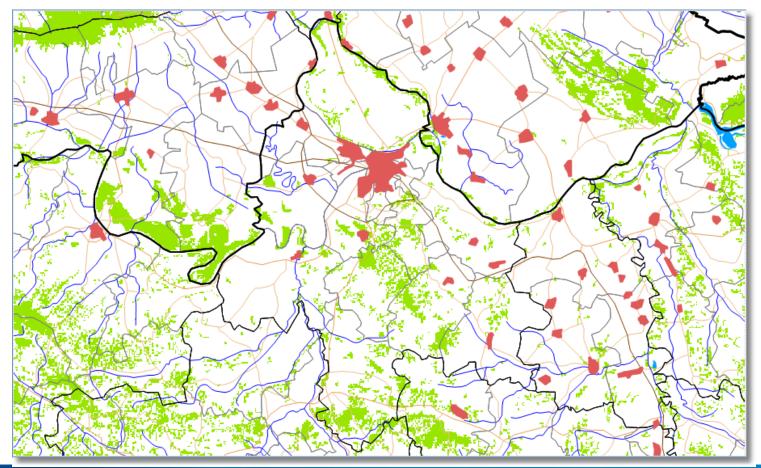








### Serbia Settlements + Forest + Roads









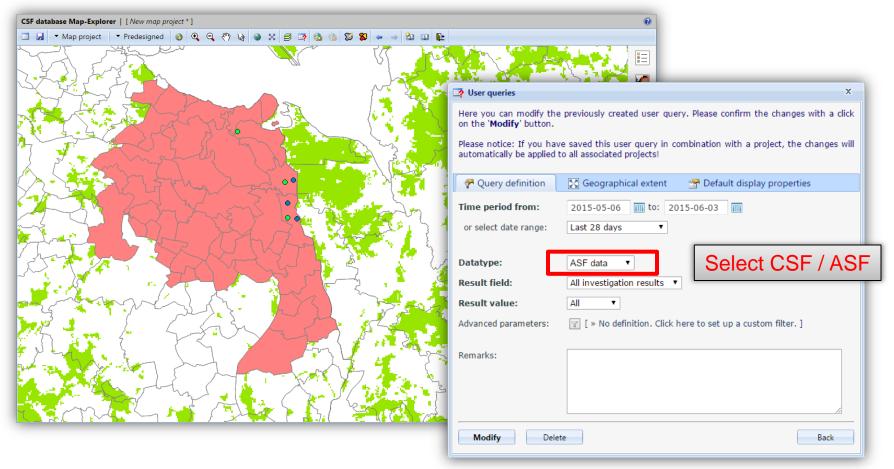








## Map-Explorer









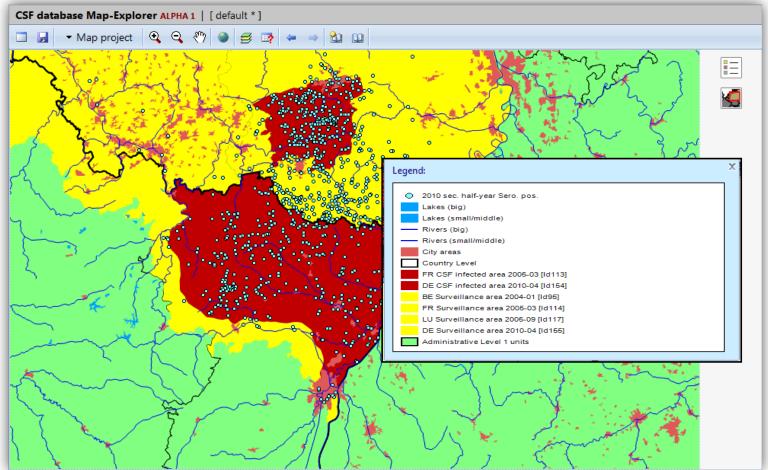








## Map-Explorer







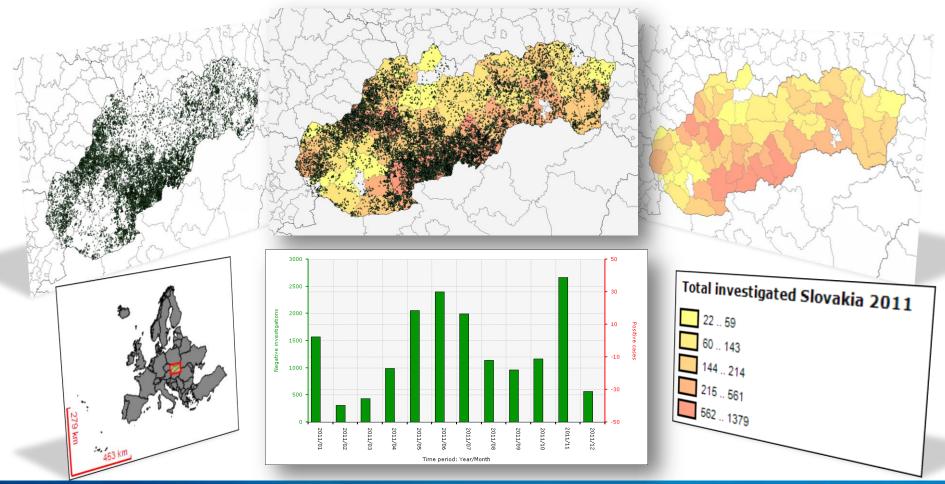








#### EURL CSF-DB example data of Slovakia in 2011

















# Distribution Maps (1)

- Creation of simple distribution maps based on several selectable data set parameters
- Shows the investigation frequency or prevalence per selectable administrative level
- Automatic or customized class ranges represented with a color ramp in the map















# Distribution Maps (2)

- Beta-binomial prevalence model taking unequal sample sizes per administrative unit into account implemented
  - leads to more stable prevalence estimates per spatial unit and a substantial reduction of the random variation

















# Distribution Maps (3)

🚰 Basic parameters	☑ Geographical extent 📴 Classes
Aggregation mode:	Total investigated animals ▼
Area unit:	Aggregation based on Level 2 units
Result field:	no selection required 🔻
Zero-prevalence:	☐ Show zero-prevalence ☐ ▼
Time period from: or select date range:	2011-01-01
Color ramp:	from □ ▼ to ■ ▼
Legend title (optional):	
	☑ Draw area unit count (in brackets) on the legend graphic
Recreate Remove Close	







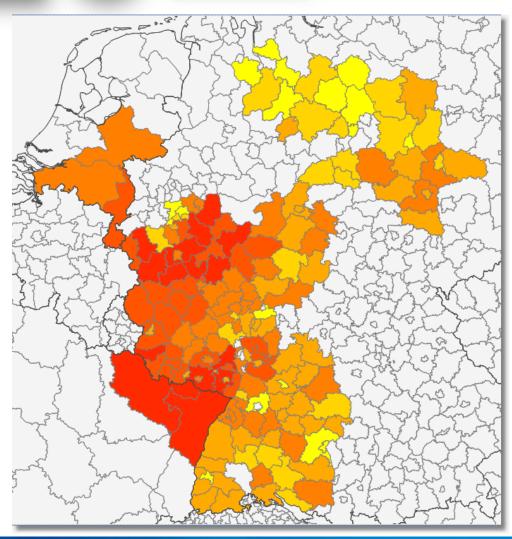






























# Distribution Maps (4)

🚰 Basic parameters	☑ Geographical extent 급= Classes	
Aggregation mode:	Beta-binomial prevalence model <b>▼</b>	
Area unit:	Aggregation based on Level 3 units	
Result field:	Serological investigation 🔻	
Zero-prevalence:	✓ Show zero-prevalence	
Time period from: or select date range:	2008-01-01	
Color ramp:	from □▼ to ■▼	
Legend title (optional):	Sero-P Q1 2008 in FR und DE (Rheinland-Pfalz)	
	Draw area unit count (in brackets) on the legend graphic	
Recreate Remove Close		







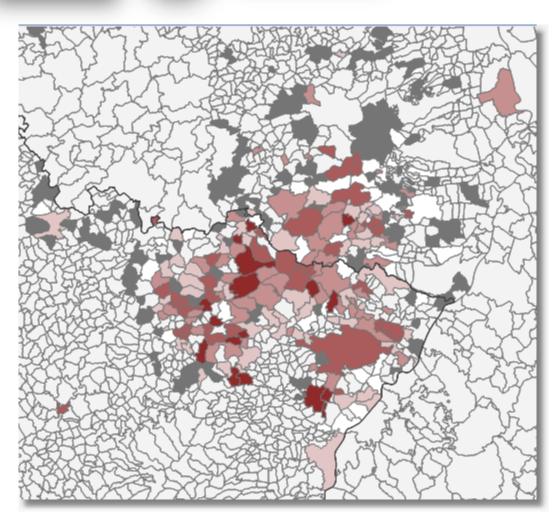


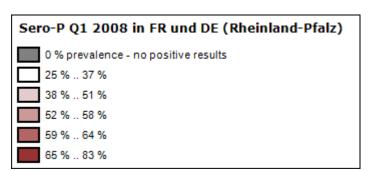




















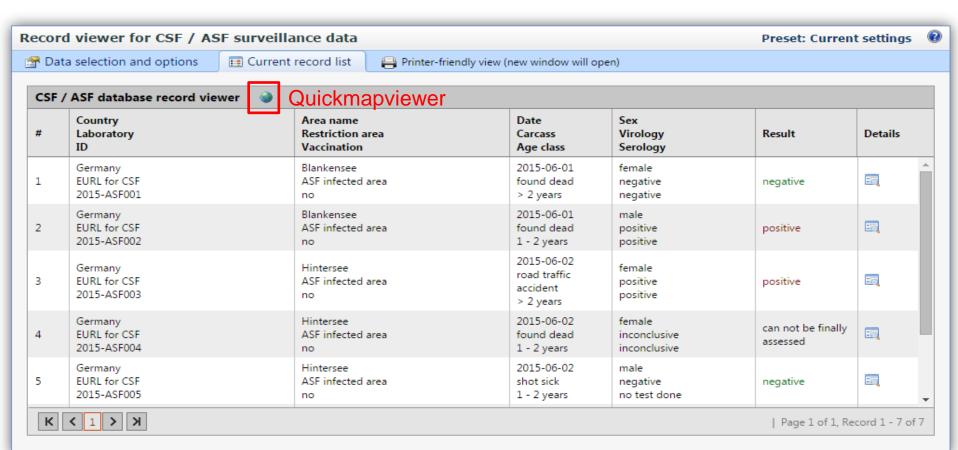








#### Record viewer



(TEST-Records for ASF!)

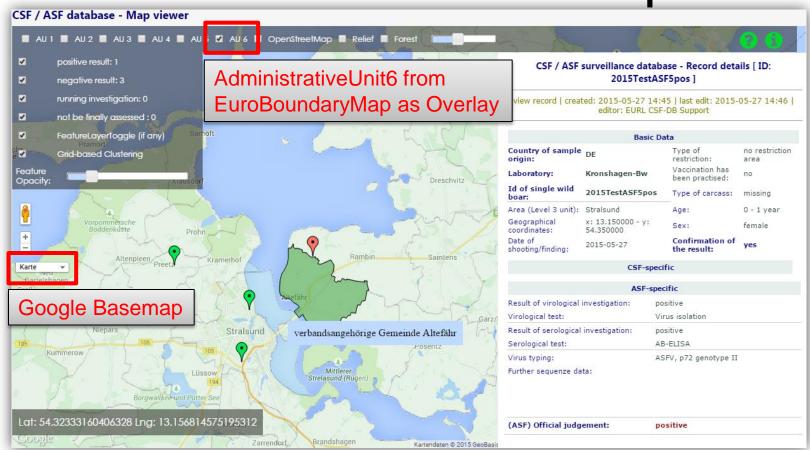












(TEST-Records for ASF!)









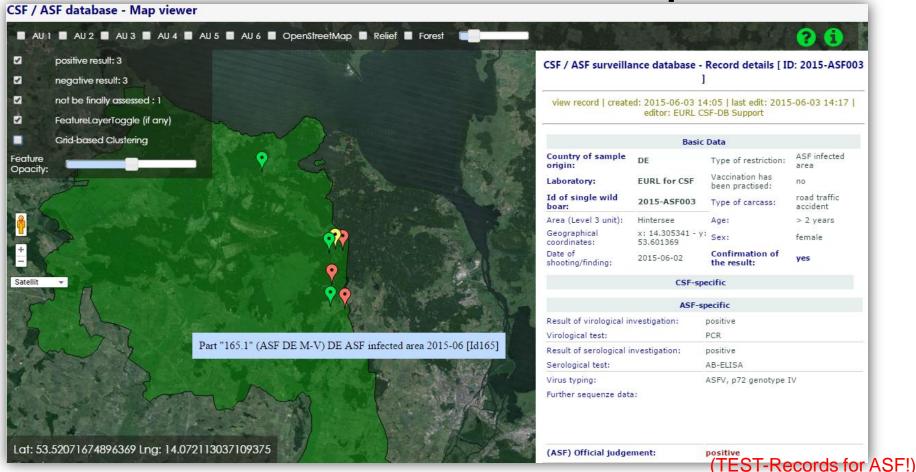




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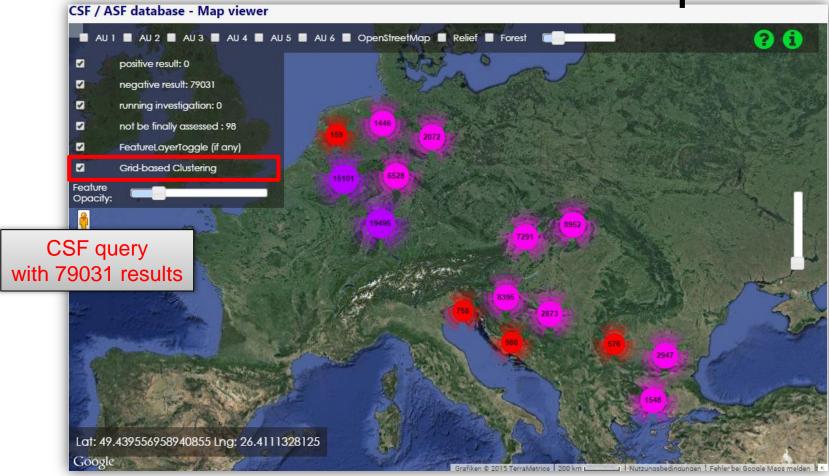
















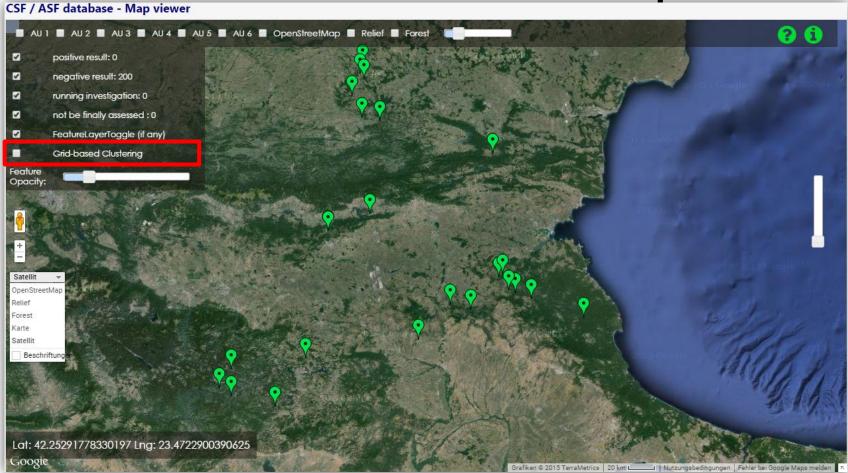
















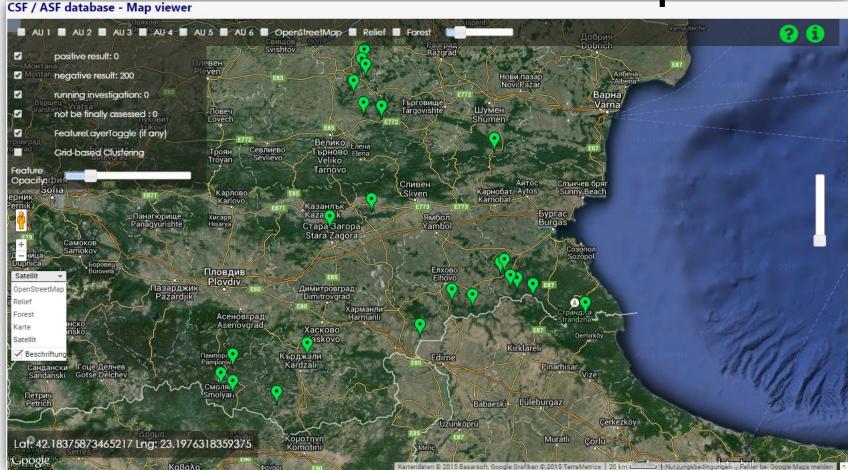






























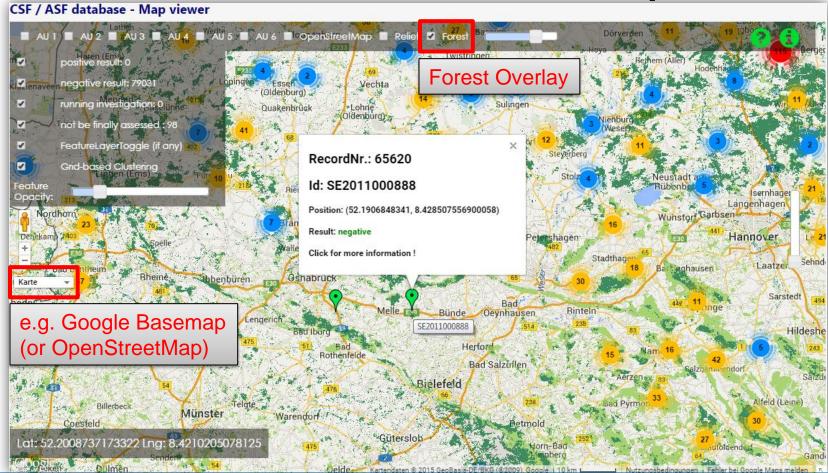


























#### Results

- Transparent representation of the epidemiological situation on CSF & ASF between the participating member states
- Up-to-date report of the course of infection in the different countries
- Evaluation of the data in time and space considering the restriction and vaccination areas
- Advantages in the scientific assessment of the disease situation in different regions
- Easing the production of official reports















# Thank you very much for your attention!



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