

# Ad hoc Action – Transboundary breeds in CryoWEB

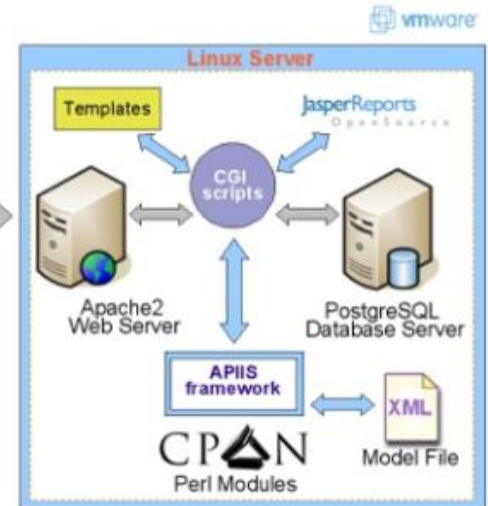
Create a European Register of Cryomaterial from Transboundary Breeds on the Basis of National CryoWEB GeneBank Databases

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**RFP**  
**EUROPE**



- 13 countries use CryoWEB for documentation of gene bank collections
- Other countries have different databases
- Statistics of CryoWEB data available at national level only (summary figures in EFABIS)
- No overview of gene bank collections at European level
- Lack of information on transboundary breeds across countries

# Objective

- To create an infrastructure to produce – on the basis of countries' individual CryoWEB records an aggregate summary statistic for all European countries
  - Secondly, to integrate information from sources other than CryoWEB databases
- 
- Create list of agreed transboundary names
  - Create list of material type names
  - Specify the aggregated data to be generated
  - Define data exchange format and develop software
  - Integrate into CryoWeb interface and implement in EFABIS

# List of transboundary names

- A web-tool developed for analysis of current linkages between local and transboundary names:
  - Review of the links
  - Add proposals for new transboundary names
  - Add missing links
- National Coordinators invited to use the tool for quick review of the current data from EFABIS/DAD-IS
- Separate database, no modifications of the countries' or FAO's data

# Transboundary web tool

## Linking local with transboundary breed names

[Home](#) | [Link](#) | [Search](#) | [Browse](#) | [Add](#) | [About](#)

Country: **Bulgaria**

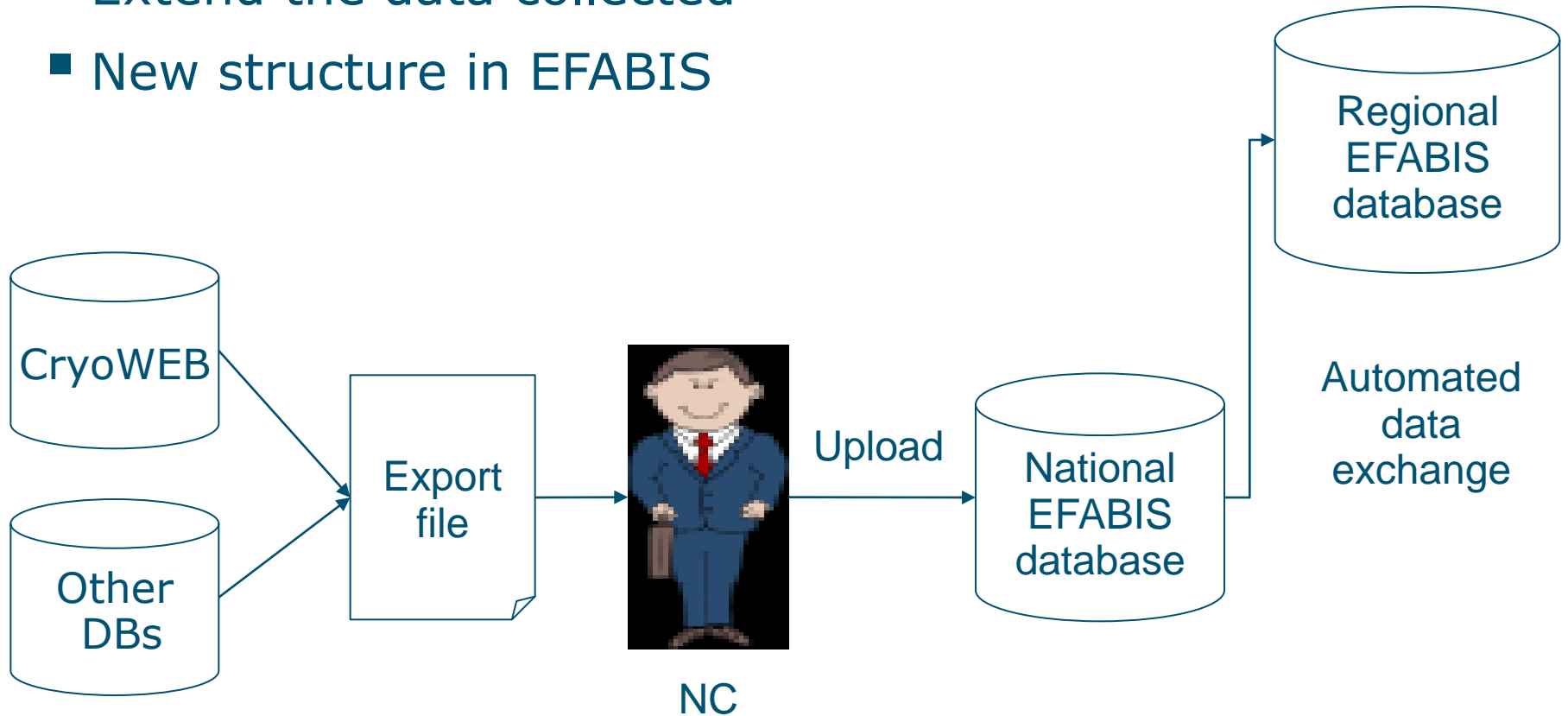
Breeds list		
Species	Breed Name	Transboundary Name
Buffalo	Bulgarian buffalo	
Buffalo	Bulgarian Murrah	
Cattle	Aberdeen Angus	Aberdeen-Angus
Cattle	Black and White	Holstein (black and white)
Cattle	Brown cattle	
Cattle	Bulgarian Gray Cattle	
Cattle	Bulgarian Rhodope Cattle	
Cattle	Charolais	Charolais
Cattle	Hereford	Hereford
Cattle	Limousin	Limousin

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Breeds linked to: Holstein (black and white) (Cattle)	
Breed name	Country
Baltata cu negru romanesca	Romania
Black and White	Albania
Black and White	Russian Federation

# Data flow for genebank data

- Keep the same data flow for the NC
- Extend the data collected
- New structure in EFABIS






# Extended data to be collected

- Breed most common name
- Species
- Country
- Year
- Total male donors
- Total female donors
- Amount of semen
- Semen donors (m)
- Amount of embryos
- Embryos donors (f)
- Amount of oocytes
- Oocytes donors (f)
- Amount of male's somatic cells
- Somatic cells donors (m)
- Amount of female's somatic cells
- Somatic cells donors (f)
- Amount of DNA
- DNA donors (m)
- DNA donors (f)

# New outputs in EFABIS

EUROPEAN FARM ANIMAL BIODIVERSITY INFORMATION SYSTEM



**EFABIS**

- News
- About
- Network
- Breeds
- Library
- Help/FAQ

Language of:  
Interface:   
Content:

Log-In  
User name:   
Password:

Webmaster  
Citation  
Disclaimer

## Single Breed Reports

- Breed Data Sheets
- Empty Breed Data Sheets

## Breeds Population Reports

- Early Warning Tool
- Single breed population structure & inbreeding, through time
- Comparing breeds on population structure & inbreeding, through time
- Population structure charts

## Other Information

- Breeds by species and country
- Status of reporting by country
- Image browser
- Transboundary breed
- Cross-table generator
- Conservation programmes

## Annual regional statistics

- Degree of completeness of EFABIS and number of I
- Number of breeds with population data compared
- Frequency of updating the population size in EFAB
- Degree of completeness of EFABIS based on Popul:
- Trends of population size by species
- Population trends over the years

## Transboundary genebank data

- Transboundary breed overview
- Cryodata charts per transboundary breed
- Cryodata charts per country
- Search material

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Software development and concept for FABISnet was initiated in 2002 under a project managed by EAAP and supported by the European Commission.



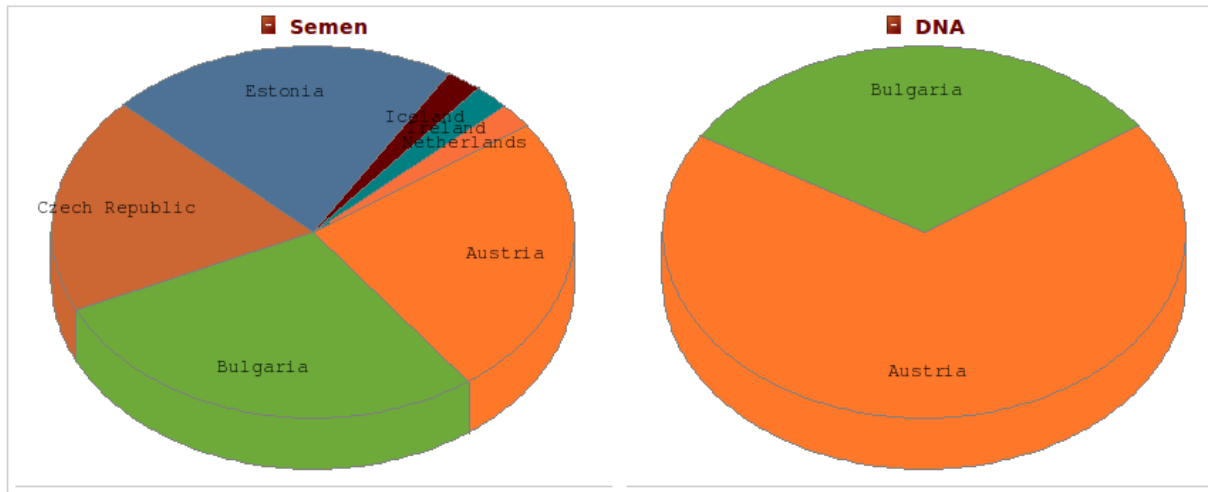
# Transboundary breed overview

Go to bottom

Select breeds

<b>Transboundary breed:</b>	<b>Aberdeen-Angus</b>	<b>Total semen:</b>	<b>4600</b>
<b>Time period:</b>	<b>2013 - 2016</b>	<b>Total embryos:</b>	<b>81</b>
<b>Number of countries in Europe reporting the breed:</b>	<b>22</b>	<b>Total oocytes:</b>	<b>200</b>
<b>Number of countries in Europe reporting cryo-conserved material:</b>	<b>7</b>	<b>Total somatic cells (m):</b>	<b>4910</b>
<b>Number of males represented:</b>	<b>650</b>	<b>Total somatic cells (f):</b>	<b>6200</b>
<b>Number of females represented:</b>	<b>136</b>	<b>Total DNA:</b>	<b>190</b>

Most common name	Country	Semen		Embryos		Oocytes		Somatic cells male		Somatic cells female		DNA			Total number of males	Total number of females
		Count	Males	Count	Females	Count	Females	Count	Males	Count	Females	Count	Males	Females		
Aberdeen Angus	Bulgaria	1300	120	30	5	0	0	0	0	0	0	60	10	5	120	5
Aberdeen Angus	Czech Republic	870	60	0	0	10	10	230	10	2000	13				60	23
Aberdeen Angus	Estonia	1000	100	25	10	40	4	400	10	2000	180				200	13
Aberdeen Angus	Iceland	100	10	13	7	5	3	90	10	100	10				10	20
Aberdeen Angus	Ireland	100	10	0	0	0	0	0	0	0	0				10	0
Aberdeen Angus	Austria	1130	190	0	0	40	40	4000	100	2000	23	130	80	23	210	50
Aberdeen Angus	Netherlands	100	10	13	7	105	23	190	30	100	10				40	25



# Searching in the register

## Search cryo material from transboundary breeds

Species

Transboundary name

Cryobank data: ALL (ALL)

Year	Breed name	Country	Total(m)	Total(f)	Semen	Donors(m)	Embryos	Donors(f)	Oocytes	Donors(f)	Somatic cells(m)	Donors(m)	Somatic cells(f)	Donors(f)	DNA	Donors(m)	Donors(f)
2009	Aberdeen Angus	Ukraine			875300												
2014	Aberdeen Angus	Netherlands	40	25	100	10	13	7	105	23	190	30	100	10			
2006	Aberdeen Angus	Ukraine			1234400												
2010	Aberdeen Angus	Austria			0		0		0		0		0				
2005	Aberdeen Angus	Ukraine			1359100												
2004	Aberdeen Angus	Ukraine			1554200												

## Search cryo material from transboundary breeds

Species

Transboundary name

Cryobank data: Aberdeen-Angus (Cattle)

Year	Breed name	Country	Total(m)	Total(f)	Semen	Donors(m)	Embryos	Donors(f)	Oocytes	Donors(f)	Somatic ce	Donors(m)	Somatic ce	Donors(f)	DNA	Donors(m)	Donors(f)
2014	Aberdeen Angus	Ireland	10	0	100	10	0	0	0	0	0	0	0	0	0	0	0
2014	Aberdeen Angus	Estonia	200									10	2000	180			
2014	Aberdeen Angus	Austria	200									100	2000	23			
2014	Aberdeen Angus	Iceland	10									10	100	10			
2014	Aberdeen Angus	Bulgaria	120									0	0	0			
2014	Aberdeen Angus	Netherlands	40									30	100	10			
2014	Aberdeen Angus	Czech Republic	60									10	2000	13			

Search...

all +

Year  equal

Reset Find

# Next step - dissemination

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## Changes in all EFABIS databases

- Database structure
- Cryo data upload module
- Synchronization settings
- Access rights
- Data migration
- New web-form for cryo data
- Modification of existing reports
- Include the new reports in regional EFABIS

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Thank you for the attention!



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