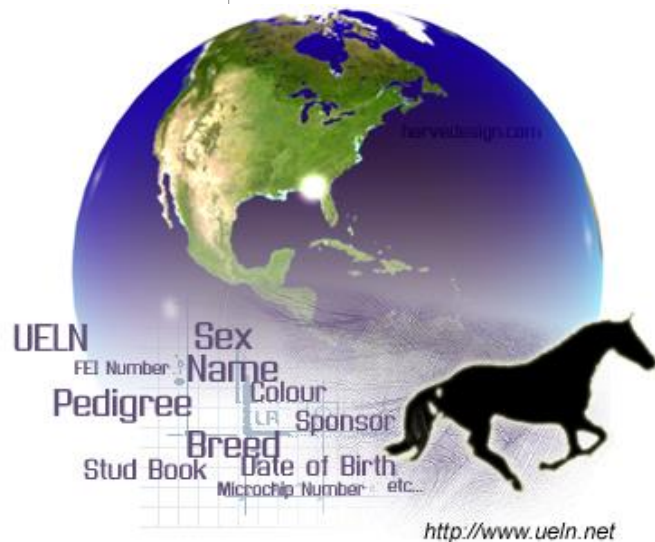


WHIRDEC Meeting

OnLine – 16th November 2023





AGENDA

1 – IMPLEMENTATION OF ANIMAL HEALTH LAW

- Issuance of identification documents for horses registered in a studbook with cross border activity.
- License and validation mark
- Registration of the place where horses are habitually kept.

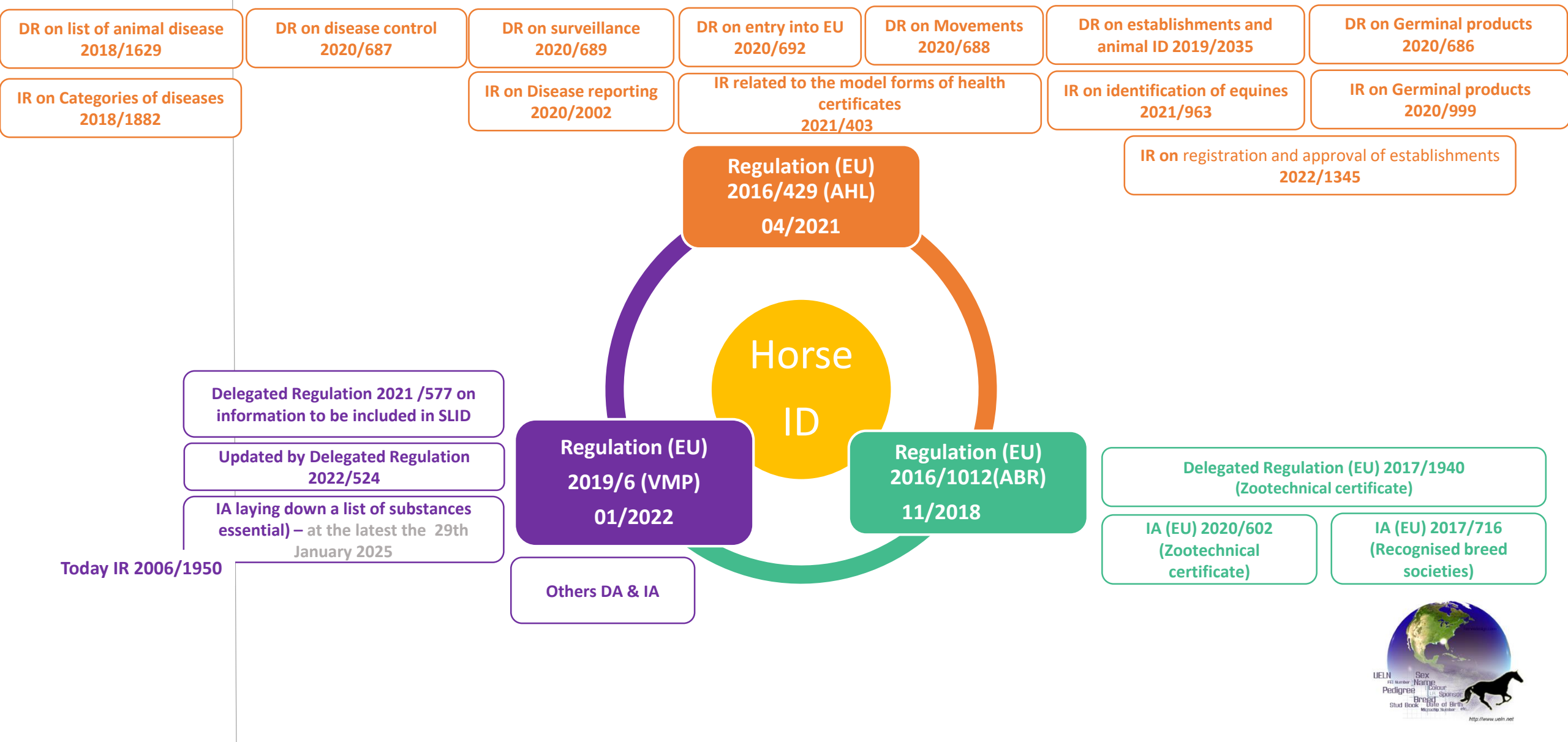
2 – DATA EXCHANGES

- Presentation of Horselink

3 – USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS) panel for DNA testing and filiation analysis



Introduction : EU REGULATION

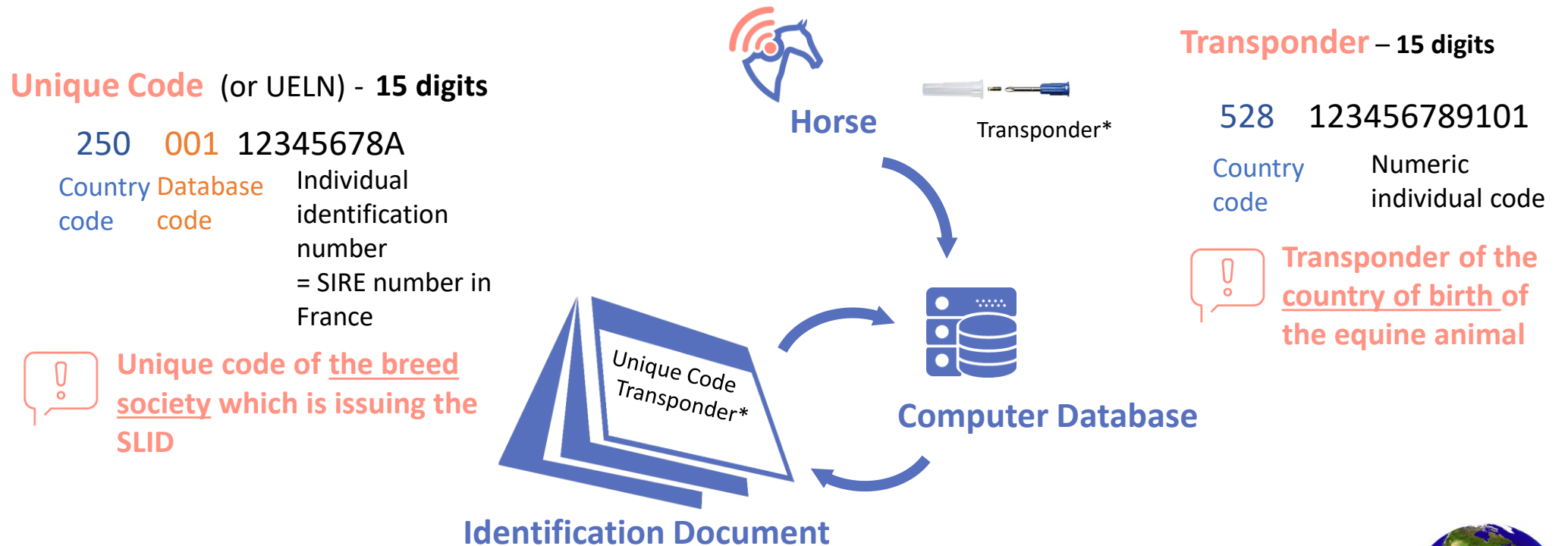


1 – IMPLEMENTATION OF ANIMAL HEALTH LAW

Issuance of identification documents for horses registered in a studbook with cross border activity

Rules for identification of equine animals, kept in the territory of a Member State to which a breeding program of a breed society located in another Member State has been extended

Example : Horse born in the Netherlands and registered with a French breeding society with extended activity in The Netherlands



→ Articles 10 and 22(2) of Commission Implementing Regulation (EU) 2021/963





STUDBOOK WITH CROSS BORDER ACTIVITY (1/3)

What will the procedure be for horses born in your country but registered in a studbook located in another member state (1/3)?

Horse born in Member State 1

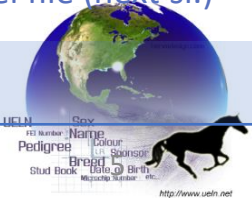
- ✓ Horse registered in a studbook located in another Member State (MS2) , with an approved extension of activity in MS1

Procedure

- Horse identified with a chip from MS1
- SLID issued by the breed society in MS2 and sent to the central database or a specific delegated body in MS1
- SLID checked and data registered in the central database of MS1
- SLID sent by the central database or delegated body to the operator



Country of birth	To whom sent the SLID?	
	Croatia	Central database
	Italy	Italian headquarters or a delegated body
	Finland	Delegated body : Suomen Hippos
	Netherlands	Central database -> Delegated body in 2024
	France	Delegated body : Ifce if no agreement (next sl.)
	Belgium	Delegated body : Hose ID if excel file (next sl.)
	Denmark	Delegated body : SEGUES Heste



STUDBOOK WITH CROSS BORDER ACTIVITY (2/3)

What will the procedure be for horses born in your country but registered in a studbook located in another member state (2/3)?



Horse born in Member State 1

- ✓ Horse registered in a studbook located in another Member State (MS2) , with an approved extension of activity in MS1

Procedure

- Specific agreement between the breed society and the central database or Ministry of Agriculture
- Horse identified with a chip from MS1
- SLID issued by the breed society in MS2 and data transferred by a file or webservice to the central database
- SLID is sent by the breed society to the operator
- Data registered in the central database of MS1



Country of birth		To whom sent the SLID?
	France	The operator if agreement signed with data exchange
	Belgium	The operator if webservice used The Central database if xls file sent



STUDBOOK WITH CROSS BORDER ACTIVITY (3/3)

What will the procedure be for horses born in your country but registered in a studbook located in another member state (3/3)?





Horse born in Member State 1

- ✓ Horse registered in a studbook located in another Member State (MS2) , with an approved extension of activity in MS1

Procedure

- Horse identified with a chip from MS1
- SLID issued by the breed society in MS2
- SLID is sent by the breed society to the operator
- SLID is sent by the operator to the central database or a delegated body and data registered in the central database of MS1




Country of birth		To whom must the operator send the SLID?
	Ireland	Delegated bodies
	Latvia	Central database
	Poland	Polish Horse Breeders Association
	Romania	Central database

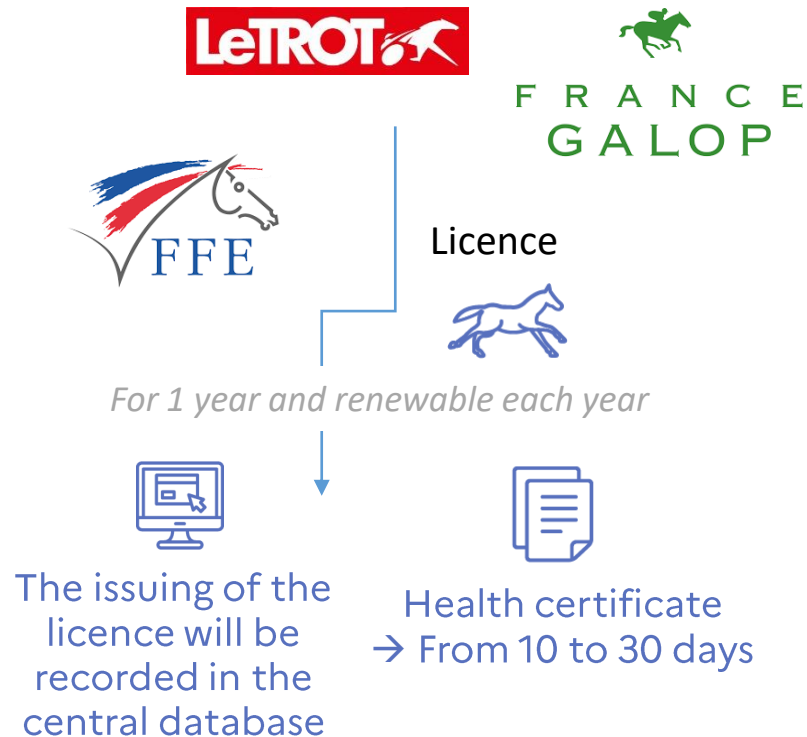



1 –IMPLEMENTATION OF ANIMAL HEALTH LAW

The license and validation mark

Will you issue a license and a validation mark ? And How?

 In France, in 2024, the licence will be delivered by



 In your country?

- Licence implementation :

 Denmark
 Poland

- Validation mark implementation :

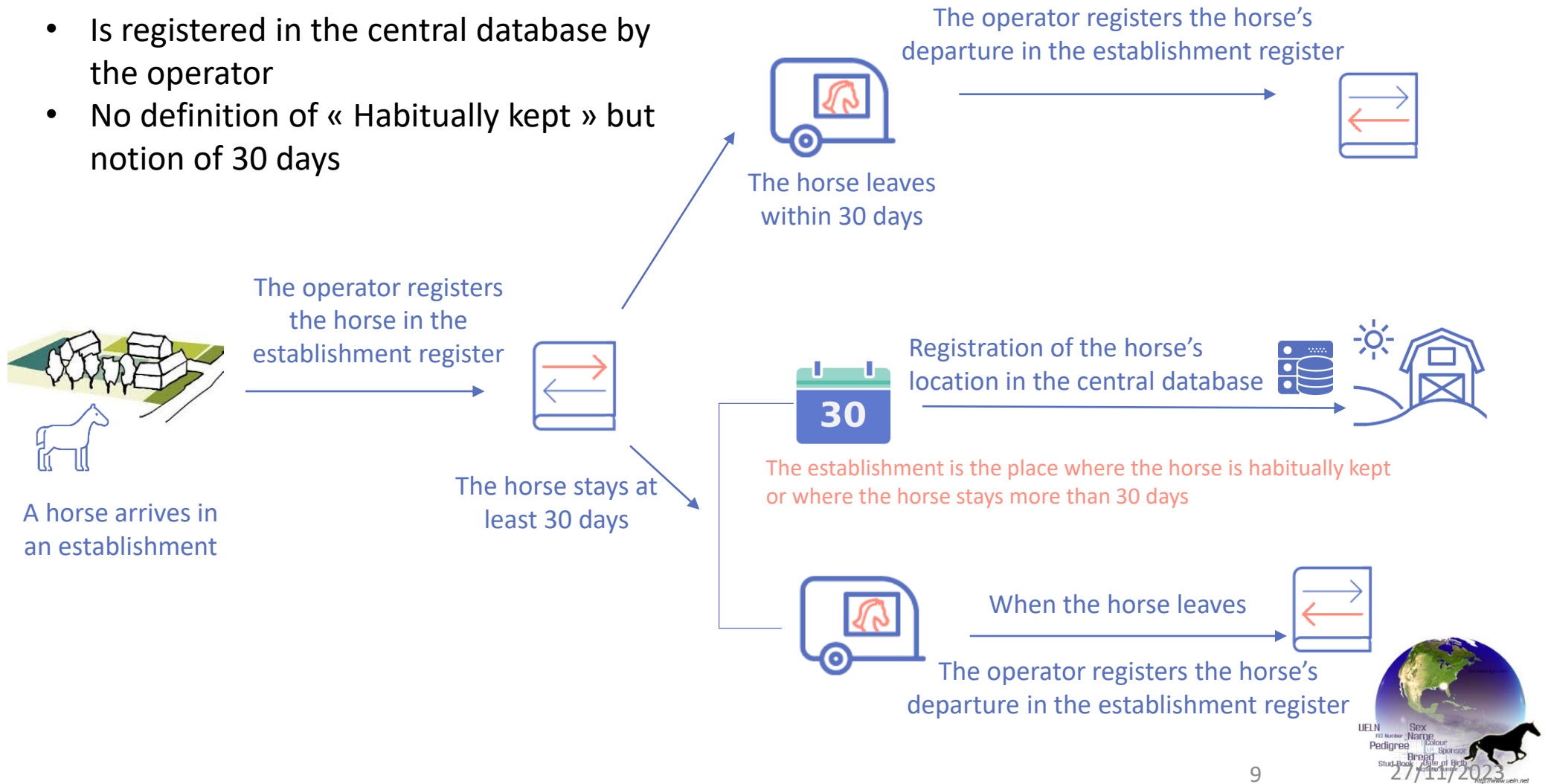
 Portugal
 Romania
 Croatia
 Denmark (Development on progress)



1 –IMPLEMENTATION OF ANIMAL HEALTH LAW

Registration of the place where horses are habitually kept or kept in the establishment for a period exceeding 30 days

- Is registered in the central database by the operator
- No definition of « Habitually kept » but notion of 30 days



PLACES WHERE HORSES ARE HABITUALLY KEPT

Results of the survey (1/3)

Europa

	Belgium			
	Croatia			
	Denmark			
	Estonia			
	Finland			
	France			
	Ireland			
	Italy			
	Latvia			
	Poland			
	Portugal			
	Roumania			



Development on progress

The registration of the place where horses are habitually kept

Australia



15 participants



13/15 countries record establishments



8/15 countries record the place where horses are habitually kept



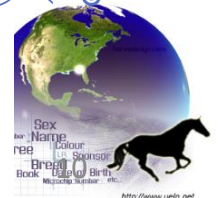
Switzerland



Norway



Australia




Legend :
 Nb of horses in the country
 Nb of horses in the database
 Nb of horses attached to an establishment




PLACES WHERE HORSES ARE HABITUALLY KEPT

Results of the survey (2/3)


 (Since when?)


 Europa


	Belgium		19 500 (2022)	300 000
	Croatia		8 200 (2007)	35 000
	Denmark		20 200 (2021)	95 500
	Estonia		1 436(2021)	6 845
	Finland		12 000	
	France		118 200 (2010)	1 035 000
	Ireland			
	Italy		185 000	460 000
	Latvia		1 825 (2023)	
	Poland		40 821	227 023
	Portugal		20 800 (2016)	101 000
	Roumania			1 059 244 (2007)





Establishments ' registration





→ Who does the declaration of the establishments?
 It depends (see annex 1 for detailed answers)



 110 000



 38 000/year


 Switzerland


 Norway


 Australia


 Sex
Name
ree
Breed
Date of birth
Blood
Mare's name


<http://www.usah.net>

PLACES WHERE HORSES ARE HABITUALLY KEPT

Results of the survey (3/3)

Movements' registration

- Will be declared to the central databases for all countries, except for Croatia to the delegated bodies
- For most, declarations have to be done within 7 days after the horse was recorded as resident in the establishment. The minimum period is 3 days for Switzerland.
- Only Italy records the movements less than 30 days-long
- Use of the TRACES system by Italy, Romania, Estonia, Norway, Croatia and France.

→ Demos from Belgium, the Netherlands and Switzerland



Denmark



Latvia



Poland



Belgium



Switzerland



Croatia



Estonia



Italy

→ Who does the declaration of the movements?

It depends (see annex 2 for detailed answers)



2- DATA EXCHANGES

Key points

- Data exchange format of an XML Schema Definition (XSD)
- An operator of establishments, operators of equine animal and operators of slaughterhouses has a free of charge read-only access to the following information (art 7 (2.), EU 2021/963) :
 - the unique code
 - where available, the identification code (code displayed by the physical means of identification)
 - the status of the equine animal, as intended for or excluded from slaughter for human consumption.
- List of the data that could be exchanged between Member States or with the Issuing body
 - The exclusion from the food chain of the horse
 - The death of the horse
 - The identification updates (for example : new chip, description changes, castration...)
 - The assignment of a validation mark or a licence
- The extension of activity of breeding societies might induce a need for data exchanges







2- DATA EXCHANGES

The example of SIRE (France)


Legend




Consultation of the database




The death of the horse




Email with excel file



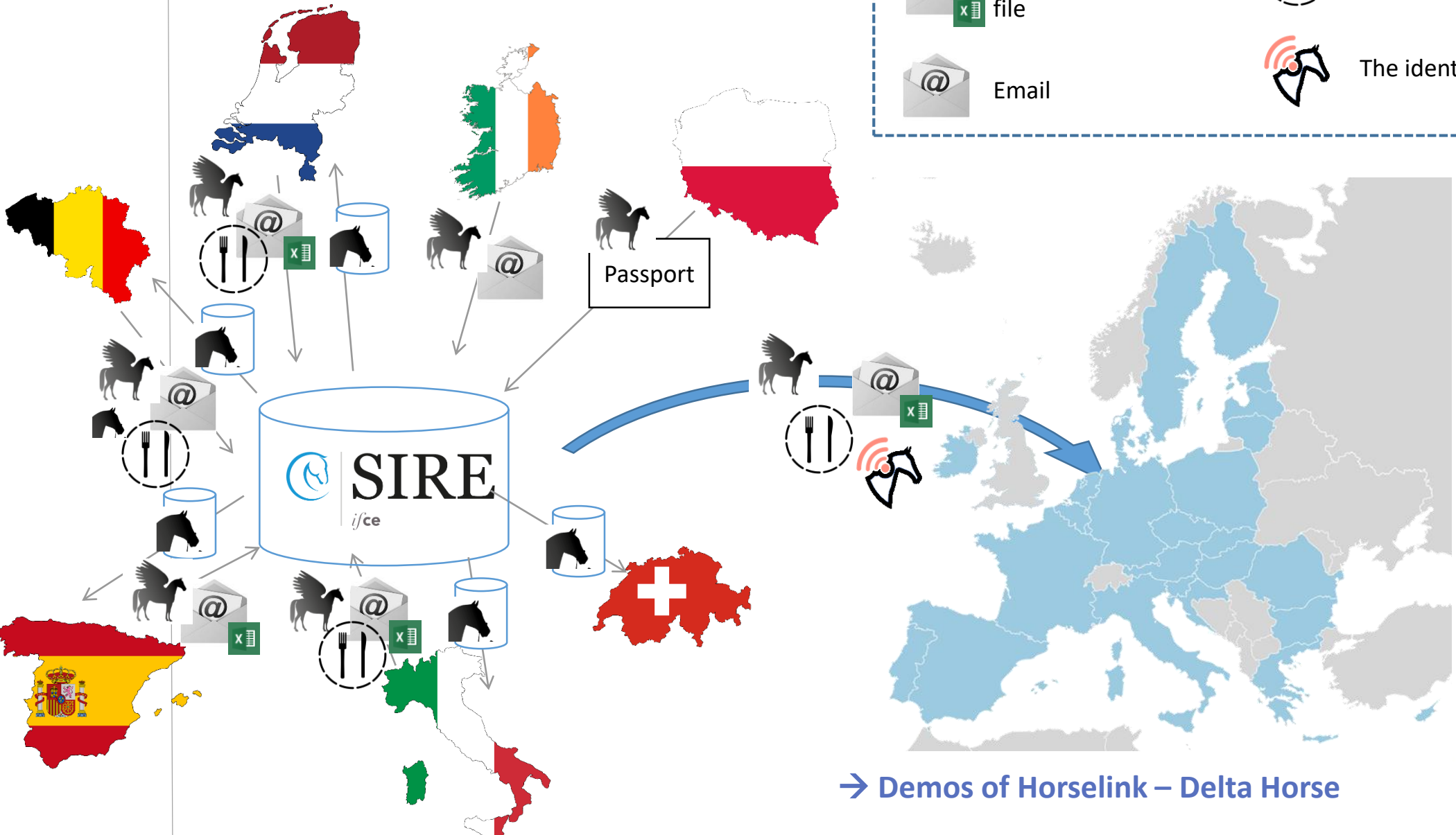
The exclusion from slaughter from human consumption



Email



The identification updates



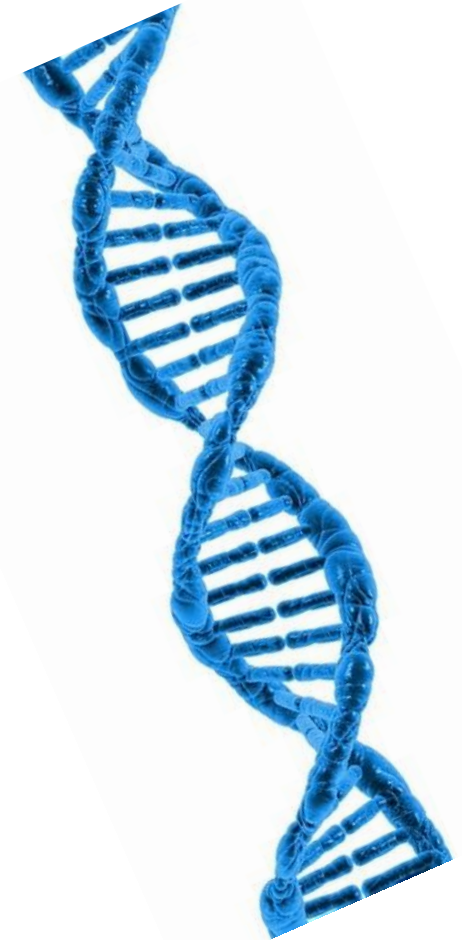
→ Demos of Horselink – Delta Horse



3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Context

- Genetic markers are important resources for individual identification and parentage assessment.
- Short tandem repeats (STRs) have been the traditional DNA marker
- Technological advances have led to single nucleotide polymorphisms (SNPs) becoming an attractive alternative.
- The International Society for Animal Genetics is working on the definition of a SNP panel for horses.



3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Results of the survey (1/6)

32 participants

EUROPA

Belgium : BWP, Zangersheide

UK : British Spotted Pony Society, Weatherbys ,Arab Horse Society, Sports Pony, British Hanoverian Horse society, The Coloured Horse & Pony Society

Ireland: Horse Sport Ireland

Germany: Oldenburg, Holsteiner, Trakehner

Spain: ANCCE, Ancades

Hungary : Federation of Hungarian Horse Breeders

The Netherlands: KWPN

Bulgaria : Bulgarian Sport Horse Association

Italy: Unirelab SRL,

Portugal: Sobreiro Velho,

Romania: AGENȚIA NAȚIONALĂ PENTRU ZOOTEHNIE

Norway: Norsk Hestesenter

Sweden: ST and SWB

Switzerland: Zuchtverband CH-Sportpferde ZVCH

Luxembourg: Stud-Book du Cheval de Selle Luxembourgeois

France: IFCE.



AMERICA:



US: ANSF, Warmblood

Mexico: Studbook La Silla

Canada: Canadian Warmblood Horse Breeders Association

AFRICA



South Africa:

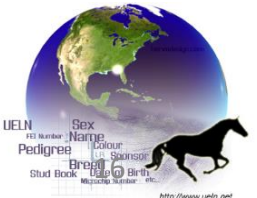
The South African Warmblood Horse Society

PACIFIC



NZ: New Zealand Warmblood Association Incorporated

Australia: ACE Group Inc



3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Results of the survey (2/6)

Mandatory information to register a horse in a studbook

- Compatible Parentage Verification (PV) & DNA profile for most of the studbooks (90% of participants)
- Some Genes of Interest (GI) for: Trakehner, KWPN, New Zealand Warmblood Association Incorporated, AGENȚIA NAȚIONALĂ PENTRU ZOOTEHNIE, Zuchtverband CH-Sportpferde ZVCH, American Warmblood Registry

How DNA is sample ?

- DNA is mainly sampled from Hairs (72%)
- Blood sampling is done in France, UK, Italy, Spain and Hungary.

















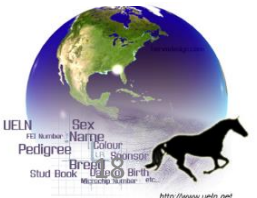
3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Results of the survey (3/6)

International Data Exchange of DNA cards

Up to now, most of the studbooks ask for STR DNA markers in PDF format, except for:











Country	Studbook	DNA cards	
		Requested in case of Importation	Sent in case of Exportation
	Ireland Horse Sport Ireland 	Both	Both
	Hungary Federation of Hungarian Horse Breeders 	STR unless genotyped in SNP	STR
	Netherlands KWPN 	SNP	SNP
	Bulgaria Sport Horse Association 	Both	STR
	Germany Holsteiner 	SNP	STR
	Spain ANCCE 	Both	Both
	USA ANSF 	Both	Both



3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Results of the survey (4/6)

Studbooks using the SNP technology for horse genotyping







Countries	Studbooks/ countries currently doing DNA analyses with the SNP technology	Since	SNP profiles for who?
	ANCCE		2023 Dams & Sires
	Horse Sport Ireland		2022 'reference library' of 10,000 active breeding animals, prevalent and deceased stallions, other animals of interest
	Oldenburg horse breeding association		unknown Dams, Sires, Foals
	Holsteiner Verband		2021 Dams, Sires, Foals
	Trakehner Verband		2021 Foals
	KWPN		2016 2019 Stallions Foals

3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Results of the survey (5/6)

The USE of the SNP technology for horse genotyping

PV = Parentage Verification









Studbook	PV by SNP since	Nb of markers for PV	SNP to STR conversion	Double sampling	Chip - nb of markers	Chip - supplier - type
 ANCCE	2025		No	Yes for 5 years		
 Horse Sport Ireland	2023		No (only for cattle)	Yes	80 000	Illumina - commercial
 Oldenburg horse breeding association	Yes		Yes	unknown	unknown	unknown - commercial
 Holsteiner Verband	2021		Yes			other - commercial
 Trakehner Verband	2022		Yes	Yes, very few	80 000	depends on International Association of Future Horse Breeding
 KWPN Royal Dutch Sport Horse	2019	200	Yes	Yes	70 000	illumina - customized



3- USE OF SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS)

Results of the survey (6/6)

Studbooks working on the transition

Countries	Studbooks preparing the transition to the SNP technology
	Weatherbys  
	ANSF 
	UNIRELAB 
	Ifce – All French Studbooks



THANK YOU FOR YOUR ATTENTION !



ANNEXES



ANNEX 1 : ESTABLISHMENT OPERATORS

Country	Operators who declares the establishments
Latvia	the owner of the establishment
Norway	the manager of the establishment
Portugal	owner/renter/manager of the establishment
Estonia	the owner / manager of the establishment
Belgium	the owner/renter/manager of the establishment
Switzerland	The local authority on demand on the owner of the establishment
Irland	Application for herd number is made by the land owner who nominates a designated keeper for that holding
Romania	the owner of the establishment & the person in charge of the horses
Denmark	the person in charge of the animals kept
Italy	the renter/manager of the establishment & the person in charge of the horses
Finlande	the owner/renter/manager of the establishment & the person in charge of the horses
Poland	the owner/renter of the establishment & the person in charge of the horses
Croatia	the owner/renter of the establishment & the person in charge of the horses

● ANNEX 2 : MOVEMENT OPERATORS

Country	Operator who attaches horses to an establishment	Operator who declares the movements between 2 establishments
Latvia	owner of the animals	the person in charge of the horse kept / the owner of the animals
Portugal	establishment's operator / owner of the animals / person in charge of them	owner of the animals or person in charge of them (if there is a change of ownership)
Irland	keeper of the holding	keeper of the holding
Norway	the person in charge of the animals kept	establishment's operator
Italy		establishment's operator
Estonia	establishment's operator	establishment's operator
Denmark	establishment's operator	establishment's operator
Belgium	establishment's operator	establishment's operator
Romania		establishment's operator / owner of the animals
Croatia		establishment's operator / owner of the animals
Poland	establishment's operator /owner/ person in charge of the animals	establishment's operator /owner/ person in charge of the animals
Switzerland	the owner of the horse	the owner of the horse

