

Minutes of the work-meeting

Newmarket (UK), 4th of November 2012

WORLD HORSE IDENTIFICATION, REGISTRATION & DATA EXCHANGE COMMITTEE



Minutes of the working-meeting

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Participants:

Name	Organisation	Country	email
Rudi Eerdeken	BWP	Belgium	rudi.eerdeken@bwp.be
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Rik Van Miert	WBFSH	Belgium	rik.van.miert@skynet.be
Chris Gould	Canadian Warmblood	Canada	tsf1@telus.net
Britt Carlsen	Ridehesten	Denmark	bc@wiegaarden.dk
Suvi Mäkeläinen	Finnish Warmblood	Finland	suvi.makelainen@hippos.fi
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Daniel Taysse	IFCE	France	daniel.taysse@ifce.fr
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Alison Corbally	ISH	Ireland	acorbally@horsesportireland.ie
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Pedro Azor	ANCCE	Spain	pedroazor@lgancce.com
Emma Thoren	Swedish Warmblood	Sweden	emma.t.hellsten@asvh.se
John Shenfield	Hannoverian	UK	hanoveriangb@gmail.com
Jan Rogers	British Equestrian Federation	UK	jan.rogers@bef.co.uk
Celia I Clarke	Warmblood Breeders Studbook	UK	celia@cwath.demon.co.uk

I. Agenda of the day

- Welcome of participants
- Minutes of previous meetings (Sevilla, Paris)
- Remind : Our main goals
- UELN
 - Principles

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- The website
- Problems ?
- HDE HUB :
 - Demo of the Hub : import horse data from SIRE to BWP
 - Stud-books : Horse Identification and pedigree data
 - FN / FEI : Performances of horses *Subject not broached*
- Presentation Norwegian Warmblood database
- Identification of horses :
 - EU regulations application - *Subject not broached*
 - New methods of identification (USA/CAN?) - *Subject not broached*
 - Miscellaneous

II. Presentation and discussion

The presentation is attached to this document.

History, our main goals.

started a long time ago, horses from others countries arrive without identity/identification...

The exchange of horses were developed for the race industry, but not for the sport horses... It was very hard to register horses from others countries... Data about the horses could change... horses disappeared and reappeared with different information...

More and more horses travelled, more it was important to get a regulation about identification. That is why it has been decided to create and promote the UELN, in order to follow more easier horses. And, for UELN it takes nearly 10 years to get it adopted and compulsory in EU.

It is important for the promotion of stud books that when a horse becomes a super star, he can be recognized anywhere he is!

And thanks to data exchange, you will save money and time to register a horse, when the horse comes from abroad.

Minimum of identification is needed, passport is now compulsory in EU for all horses. But to be sure of the horse, we also need to find and promote new tools.

→ microchip is an example of that. Maybe new tools now (Iris scan?...)

UELN/Microchip.

Sometimes, the UELN is still confused with the microchip, and there is no definition concerning the microchip number/format in the EU regulation, it is only about the ISO format.

It would be interesting to promote the microchip with the country of birth (at least in Europe).

John Shenfield said that in UK, the microchip code was reserved to 'DEFRA' for any purpose...

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Xavier Guibert added : the problem is also about the cost...

Manuel Sada proposes "if we go all together to the factory to get a better price, as a group, could we not be better, instead of several factories. Even if we ask for different microchips codes after.?"

In Norway, the foal is registered and then the stud book send the microchip to the breeder, and then the vet put the microchip in the horse.

➔ easy to manage because they are not so big...

Xavier said that in France : "we are too big, so we send the microchips to the vet, not to the breeder..."

Concerning horses' identification, it is important to note that the microchip is on the horse and linked to the passport, and the UELN on the passport linked to the original database.

III. Demo of the Hub data exchange by Rudi Eerdeken (BWP)

The Hub.

It is now the existing tool to exchange data, even if this is not perfect, we must start to use it. If we are always waiting for a better tool, it is a common project, and each of us should be involved in the project. We understand that it is difficult to go quick when we meet only once or twice a year.

The Hub is free access for WBFSH members. For others, they need to get a contract with WBFSH, and pay fee, or get an access though another international organization (FEI, WAHO...).

FEI has very bad data in its database, so the FEI would like to encourage the NF to use the SB database to record horses in the FEI database.

Thanks to the system shows by Rudi, they have the possibility to correct the UELN, data of horses. With some technical developments, the demo done by Rudi shows that data are directly imported from the SIRE database to the BWP database, through the Hub, this logs the requests.

The demo is successful, and the horses have been imported in the BWP database, with data coming from the SIRE database. It has been done for the horse and its pedigree. The exchange is quick and secure.

Xavier invites other databases to join the Hub.

A new webservice should be created in 2013, it could be very helpful for a lot of database organization which could research a horse with the microchip. The webservice could send the UELN, the database name to find information about the horse.

IV. Siri Furre presentation

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See presentation attached.

V. Situation of horses databases in different countries represented

No more central database in UK, but still 80 different databases... This is a problem to find information about horses, and to know if the horse is already registered, where is the information?...

Belgium, central database with stud book databases linked to the central database. Some main data are in the central database.

In Spain the situation is similar as Belgium, some data have to be send to central database.

In Norway, no central database at the moment.

In Sweden, as in Ireland, no central database.

In Ireland, no central database 6-7 stud book databases which issue passports.

In US, not much data shared, no requirement to give breeding information to USEF.

In Mexico, no central database. Start the implementation of UELN.

In Finland, one breeding organization, one database.

In Canada, still a plan for a central database, but no fund for the short term.

In France, only one central database until now.

VI. Next step, next meeting.

Several participants seem interested to participate in data exchange. The data exchange chart has been distributed or sent to interested people. We need more involvement in this project. Do not hesitate to solicit us if you need any help to get connected to the Hub. The user and technical guide are available at the address : contact@ueln.net

Development of a new webservice : Research by microchip.

Next meetings : at the end of the first semester 2013 and just before the next WBFSH GA, in October 2013.

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Appendix

Presentation of the WHIRDEC meeting

OUR MAIN GOALS

- To improve identification of horses
 - To find and to promote new tools
- To save identity of horses
 - when they are sold
 - When they travel
 - When they are recorded abroad for breeding or competing
- To save time and money
 - Recording from passports is expansive and produces mistakes
 - Owners ask for a quick service !



OUR MEANS

- Standardisation of identification
 - Identification methods
 - Passports
- Standardisation of data
 - UELN makes the horse unique and gives its « adress »
 - Other data
- The UELN website
 - Demo
- Horse data exchange HUB
 - SB to SB
 - SB to NF
 - SB to FEI
- In exchange, FEI will give to SB the performances of their horses and will encourage NF to connect the SB databases



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MEANS

- 1st STEP = to recognize Horse in each database
 - UELN
- 2d STEP = to exchange data between DB
 - HDE by common HUB



UELN definition

- Universal Equine Life Number
 - 1 horse, 1 number
- Discussion around the UELN start in 1999 :
 - With ISBC (TB), WAHO (Pur Bred Arab), UET (Trotter), WBFSH (Sport Horses), ISAG (Animal Genetic) and FEI (International Equestrian Federation)
 - → find a common language for horses in order to exchange data
 - → they agree to define a codification for an universal horse number
- Creation of a working group around identification 2006 :
 - WHIRDEC : World Horse Identification and Registration Data Exchange Committee



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The Format of the UELN



- 1 = ISO-3166 country code (numeric, 3 K): the country of the database which registered the foal at birth
- 2 = Code of the database (alphanumeric, 3 K) where the horse has been registered at birth
- (1+2) = **International code of the database**, which makes unique the number of the horse
- 3 = registration number of the horse in the database where it was registered at birth (alphanumeric, 9 K)



Difference between UELN and microchip

- Microchip :
 - 3 first digits = country where the microchip is implanted (most of the time, but not compulsory)
 - 2 digits = specie code
 - 2 digits = company code
 - 8 digits = identification number
- There is no direct link with the database where the horse is register
- A microchip can be unreadable
- A horse can get 2 microchips
- A horse can get a dog/cat microchip --> specie code wrong!
- UELN will always be the same no matter where is the horse
 - The UELN code is the address of the database which registers and delivers the passport of the horse for the first time.



How to introduce UELN in our databases

- **For original horses** (registered at birth)
→ Create your UELN from your registration number



- **For imported horses :**
→ Please ask the UELN from the original stud book of the horse



Remarks:

- for 'old' horses when they do not have an UELN in the passport :
 - If you do not know the UELN or do not have the possibility to find it, you can put 999999 for the UELN code then the 9 characters of the horse number.
 - It will only mean that you do not know the UELN of the horse, and you did not add one → because this UELN could be wrong in the pedigree of the progeny



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How to use it?

- **How to put a UELN on a 'new horse' register:**
 - 1st case : first registration for a horse born in your country :
Create UELN with UELN code of your database
 - 2nd case : first registration for a horse born in another country but registered at birth in your database :
Create UELN with UELN code of your database
NB: the ISO code of the country of birth would be in the microchip number
 - 3rd case: registration of a horse coming from another database of your country :
keep the UELN of this horse in your database
 - 4th case : registration of an imported horse with UELN :
keep the UELN of this horse in your database
 - 5th case : registration of an imported horse without UELN printed on the passport :
DO NOT ADD an UELN for this horse
ask the database or studbook of birth for the UELN of the horse



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UELN and EU regulation

- The UELN is included in the 504/2008 EU regulation
 - Pages 149/6 (32), 149/7 (33) (34), 149/8
 - In Europe, all PIOs have to use the UELN to register horses.
- Chapter II, article 3.3 about "General principles and obligation to identify equidae"
 - a) a single lifetime identification document;
 - b) a method to ensure an unequivocal link between the identification document and the equine animal; → microchip
 - (c) a database recording under a unique identification number the identification details relating to the animal for which an identification document was issued to a person recorded in that database. →UELN
- Thanks to this UELN, databases can share data about horse (in competition, imported, semen...)



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PROBLEMS IN IMPLEMENTING WRONG UELN's

- In 2012, the French NF introduced « foreigner horses » into the FEI database, adding the six digits UELN code of the French database in front of the original registering number of each horse ! We found these horses as in the French National database they had no UELN !

-



UELN.net

Recorded databases : 775

<http://www.ueln.net/>

See 504/2008 EC Regulation



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The horse data exchange HUB



Application

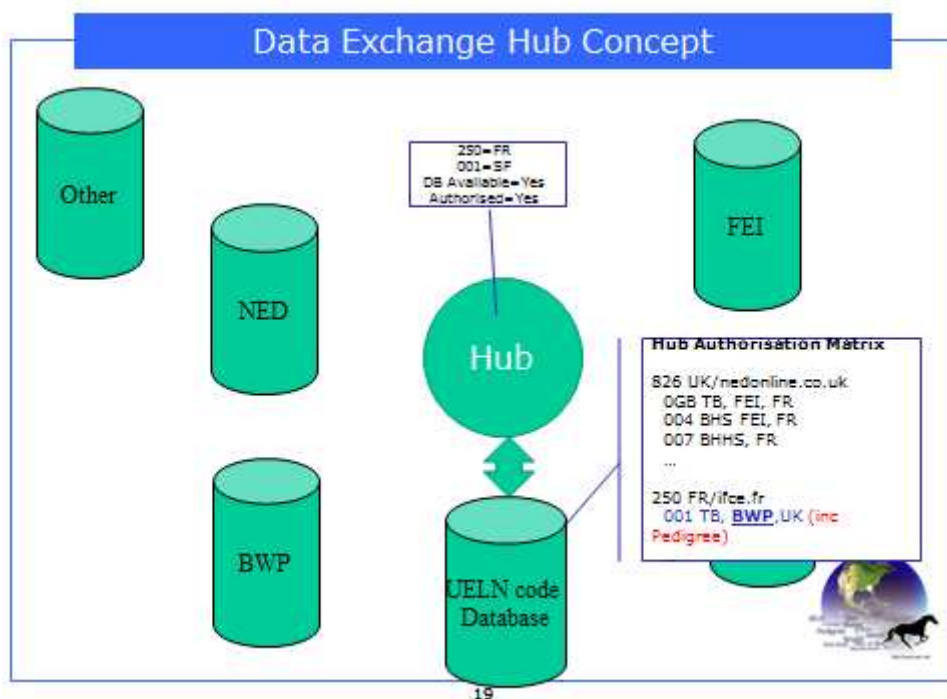
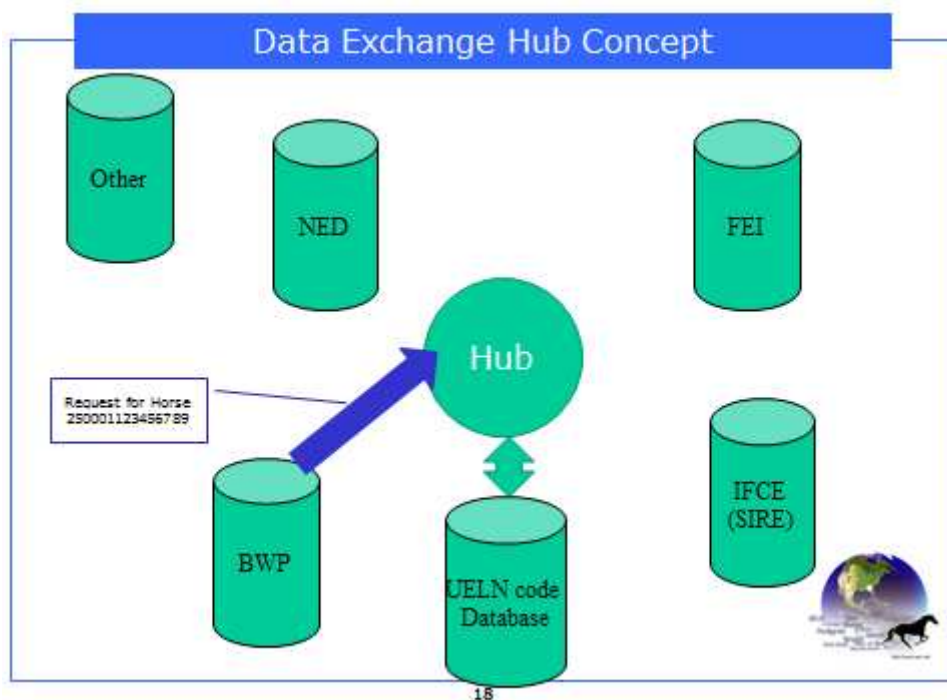
- Data exchange
 - Principes :
 - Communication between 2 databases through a Hub (on the UELN database server)
 - No data stored in the hub
 - The hub counts the access requests (logs)
 - This central database would hold and maintain all access rights and grants and the available webservices list
 - A portal window will be created to this central hub for each database which will then allow them to grant access rights to specific webservices to specified other databases.



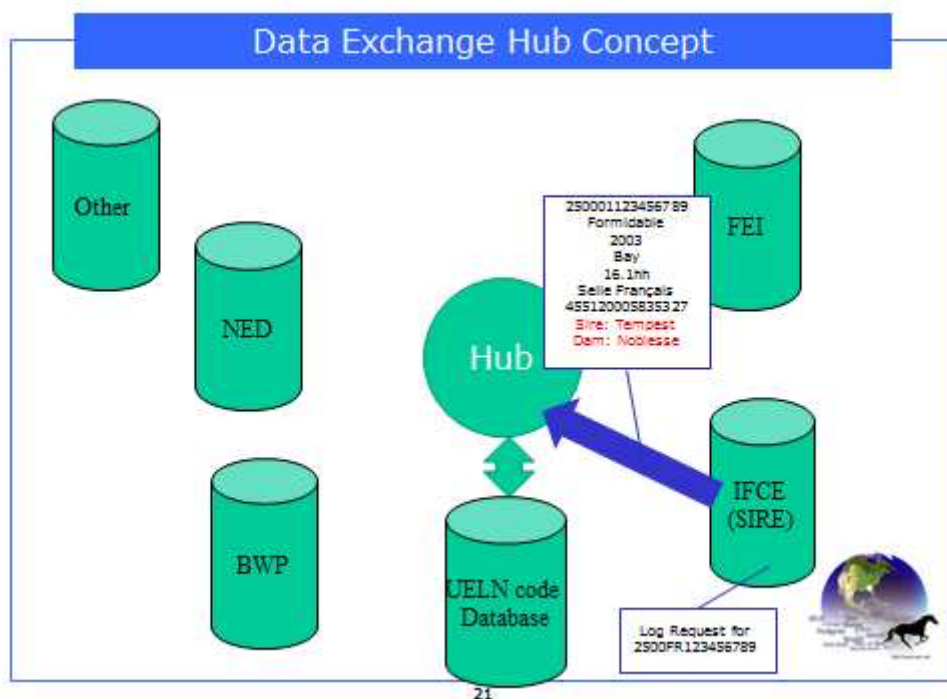
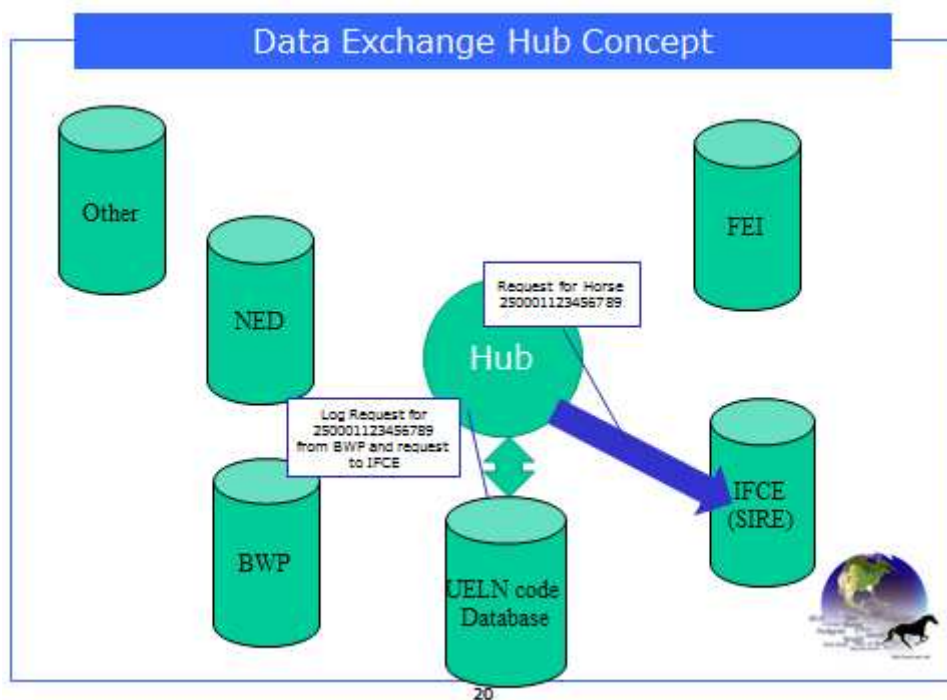
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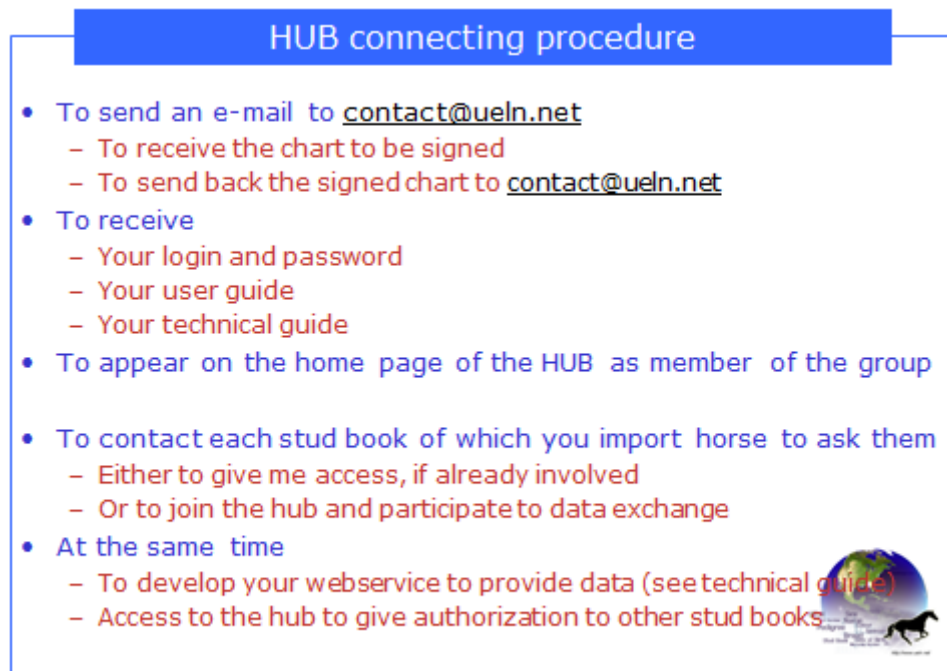
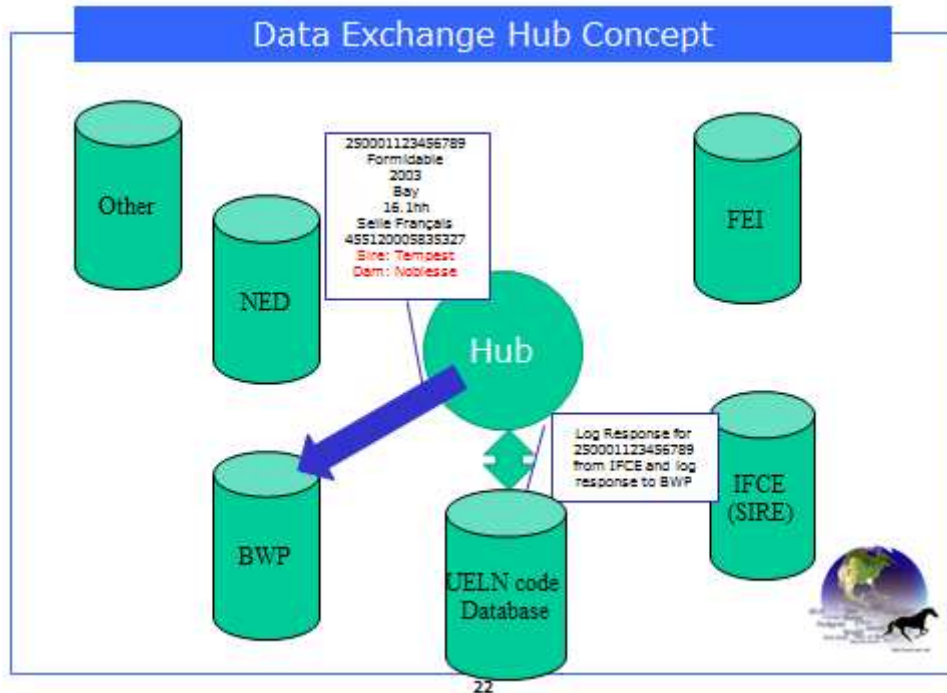
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Hub : Where we are?

- French database connected
- BWP, Danish Database → login assigned
- 3 webservice specified
 - Horse information
 - Horse ancestry
 - Parents information
- We need to improve standardisation of data :
 - A list of stud book codes should be shared between WBFSH members
 - A way to improve rankings!



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Hub : Where we go?

- Proposal : add a webservice to find horses with microchip number
 - Request authorized database
 - In answer :
 - Microchip
 - UELN
 - Database name
 - Can be done for February/March



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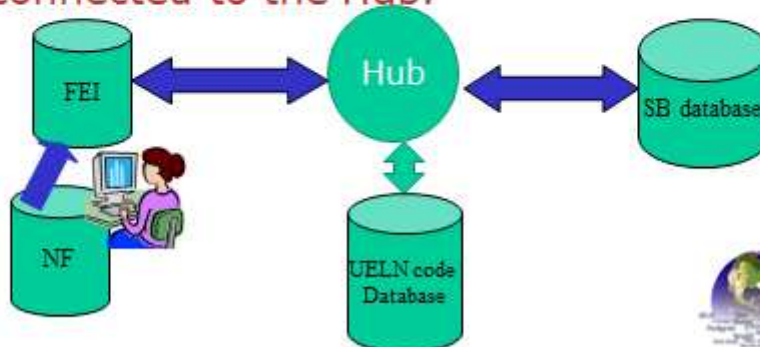
demo HUB

Importation of data horses in BWP database,
from SIRE database through the Hub.



Horses performances

- FEI is still ready to share horses' performances with SB
 - As soon as more databases will be connected to the Hub.



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Nordic Interstallion

WHIRDEC – Newmarket

Siri Furre, UMB

Nordic Interstallion

- ▶ Joint genetic evaluation of riding horses in the four Nordic Countries.
 - ▶ Cooperation between UMB in Norway and SLU in Sweden
 - ▶ Siri Furre, UMB (Young Horse Test data)
 - ▶ Åsa Viklund, SLU (Competition data)
- Prof. Odd Vangen & Dr. Bjørg Heringstad, UMB; Prof. Jan Philipsson, SLU
- ▶ Funded by the Swedish-Norwegian Foundation for Equine Research



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Nordic Interstallion - Participants

► Breeding information



► Sportinformation



Nordic Interstallion - Aim

- Calculate genetic connectedness level between populations
- Estimate genetic correlations between traits tested at young horse performance tests in the different countries
- Establish routines for, and estimate joint breeding values in the Nordic countries based on young horse test data and competition results



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Nordic Interstallion - Background

- ▶ High genetic connectedness between sporthorse populations in Europe
- ▶ *Genetic connectedness among some horse-populations currently better than for dairy cattle* (Hellsten et al., 2008)
- ▶ *Connectedness is expected to rise in the future due to increasing exchange of genetic material* (Ruhlmann et al., 2008)



Nordic Interstallion - Background

- ▶ High genetic correlation between traits in sport-horses in Europe
- ▶ *Medium to high correlation between performance tests traits in DWB and SWB* (Hellsten et al. 2008)
- ▶ *High to relative high genetic correlation between competition performance in Belgium, France, Sweden, Denmark and Ireland* (Ruhlmann et al. 2009)



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Nordic Interstallion - Background

► National genetic evaluation

- Young Horse performance tests
- Performance in competition

► Lacking:

- Testinformation on **imported** animals
- Competition information on **exported** animals & international competitions



An example...(Winningmood van de Arenberg)



- Not enough offspring in each country for national EBV



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Example continues... (Mare by Winningmood)

NORWAY
✓Born
✓Competition
✓Registered

✓NBT

SWEDEN
✓Registered

✓Young Horse Test

✓BLUP
✓Competition

DENMARK
✓Mare conformation approval
✓1-day jumping test

✓Young Horse Index

✓Offspring

Dam is a KWPN mare:

- 1 AES daughter

9 offspring in 4 studbooks – **NO** official breeding value

- 3 KWPN offspring



Nordic Interstallion - Challenges

► Identification of horses in joining databases

- UELN not incorporated properly
 - Multiple UELN numbers
- Horses' name, birth year and parents
 - ➔ main identification parameters

Akribori
DE321210407796
752004049604256
04964256
1053
DVH 766
147RH
34026

- Cross-reference files available from other projects, but a lot of manual work and "re-inventing the wheel"

➔ time consuming and unnecessary...



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Nordic Interstallion - Study I

- ▶ Is joint genetic analyses and estimation of breeding values feasible for the two warmblood riding horse studbooks, NWB and SWB?
- ▶ Traits recorded at young horse performance tests in SWB and NWB
 - ▶ Compare the accuracy of predicted breeding values for sires with tested offspring in both studbooks
 - ▶ Could information from SWB improve the accuracy of breeding value estimations in the NWB?



Study I - Results

- ▶ 113 stallions had tested offspring in both countries
 - ▶ Genetic similarity = 31 %
- ▶ Correlation between tested traits medium to high
 - ▶ Temperament traits lowest correlation: 0.43-0.59
 - ▶ Conformation, jumping technique, walk and trot under rider highest correlation: 0.77-0.90
- ▶ Accuracy of breeding values increased both for NWB and SWB when including information from both studbooks
 - ▶ 2-5% for SWB
 - ▶ 19-229% for NWB



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Conclusion Study I

- ▶ High genetic connectedness between populations
- ▶ Medium to high correlation between tested traits
- ▶ Increased accuracy in breeding values



Joint breeding value evaluation!



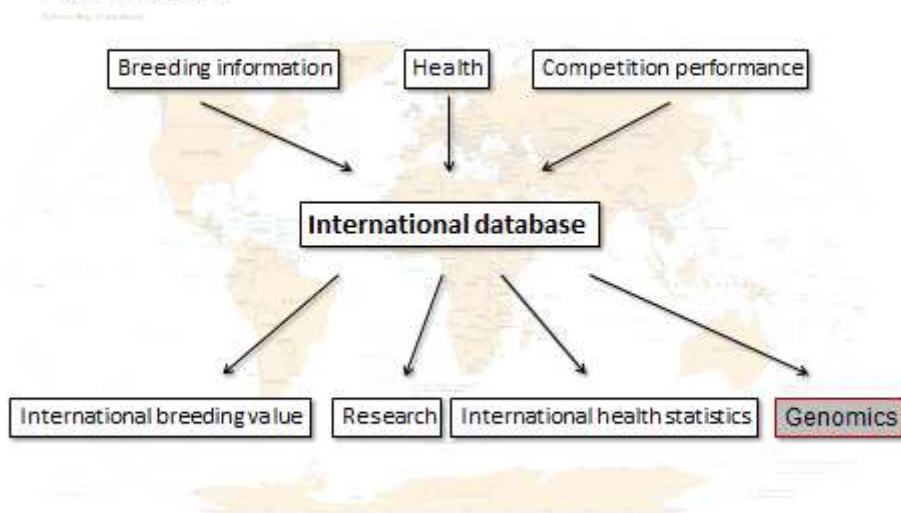
What's needed?

- ▶ An easy to access international database with all national breeding,- and sport-information
 - ▶ The hub?
 - ▶ Other solutions?
- ▶ Results from international competitions (FEI)
 - ▶ All international competitions must be made available for the national studbooks



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The future?



HorsePro – sport and breeding inconcorporated



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History

- ▶ Established 10 years ago as an IT-solution for the Norwegian Equestrian Federation
 - ▶ Register horses for competition
 - ▶ Register licensed riders
 - ▶ Handle results and competition information
- ▶ Today
 - ▶ Online entering to competition
 - ▶ All payment handled online



Latest developments

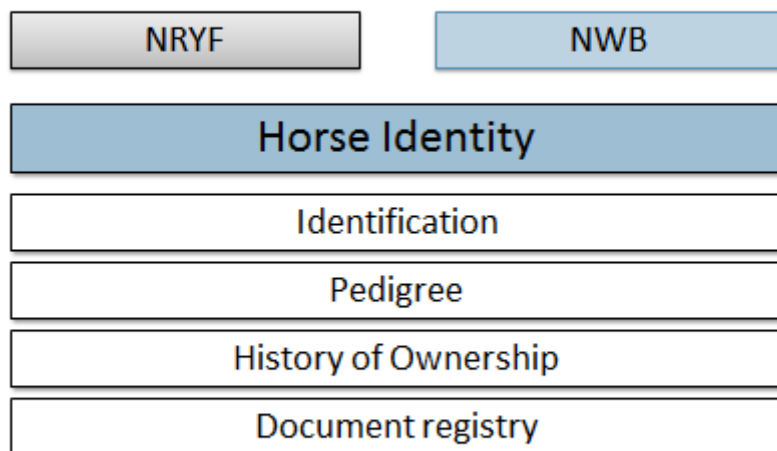
- ▶ Norwegian Warmblood
 - ▶ Studbookmanagement at the Norwegian Horsecenter
 - ▶ Datasystem outdated
 - ▶ Test results not in the database
 - ▶ Needed to have a closer contact with our own breeders
- ▶ Various solutions investigated
 - ▶ 2010/2011: Development of a system for handling breeding information in HorsePro
 - ▶ April 2011: Independent studbook office at UMB established



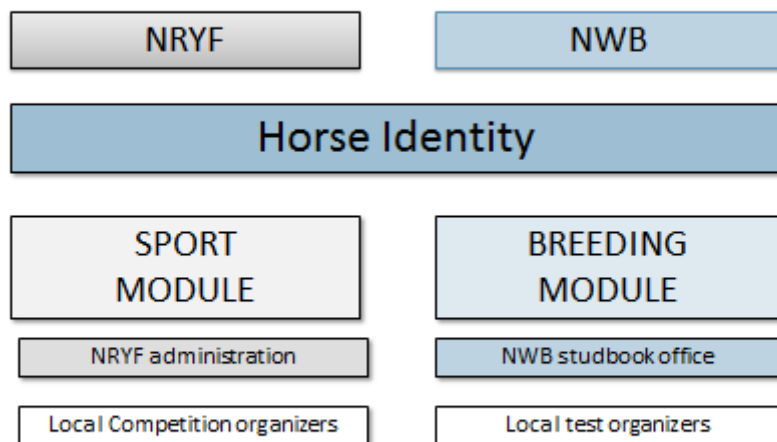
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Structure



Structure



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Identification

► Flexible and versatile

- Unlimited number of identification criteria can be assigned to each horse e.g UELN, studbook-, mikrochip-, DNA-number etc
- Possible to search for all numbers, variations of name etc. when locking up a horse

► [A quick view into the system](#)

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1053
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The screenshot shows a web-based identification form for a horse. At the top, the UELN (Unique Equine Identification Number) is entered as 578011020124548. Below this, there are several input fields for personal and identification data: Profil, Navn (Name), Kommercielt navn (Commercial name), Fødselsdato (Date of birth), Fødselsland (Country of birth), Oppdrettsstat (Breeding state), Farge (Color), Kjønn (Sex), and DNA-testet (DNA tested). There are also checkboxes for 'Er skakvart' (Is a quarter) and 'Er død' (Is dead). A 'Registert for' (Registered for) section includes 'Reg. type' (Normal), 'Reg. standpunkt' (A-register), and a 'Kommentar register' (Registration comment) field. At the bottom, there is a table with columns 'Type', 'Vard', 'Tilleggsnummer', and 'Utdokument'. The first row shows 'Horsechip' with the number 578077000102011.



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Document database

- ▶ Copy of documents concerning a horse is scanned and uploaded to the horse registry
 - ▶ Id-pages of the passport
 - ▶ Documentation regarding ownership

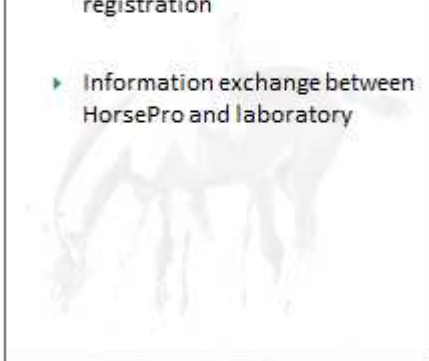
➡ Reduces the time needed to search for documentation in paper-archives.



Breeding Module

DNA-control

- ▶ ALL foals DNA-typed upon registration
- ▶ Information exchange between HorsePro and laboratory



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Breeding Module

DNA-control

Test Results

- ▶ Online registration of results from:
 - ▶ Young Horse Tests
 - ▶ Stallion Approval
 - ▶ Mare performance
 - ▶ Foal Shows etc
- ▶ LIVE Update



Breeding Module

DNA-control

Test Results

Pedigree

- ▶ New horses entering database
 - ▶ Assigned existing parents – if parents not already in database → parents entered
 - ▶ Pedigree traced automatically as far back as there is information
- ▶ Safety controls included in the program to avoid creating duplicates etc.



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Breeding Module

DNA-control	<ul style="list-style-type: none">▶ Stallionsholder reports covering▶ Breeder (mare owner) reports the outcome of covering▶ Online payment available for registration fees etc.
Test Results	
Pedigree	
Covering and foal reports	



Features

- ▶ All sport- and breeding information in ONE place
 - ▶ [Sportresults](#)
- ▶ Easy to incorporate on external websites
 - ▶ [Norwegian Pony Breeders Association](#)
- ▶ Data for research easy to access
 - ▶ All results from a horse registered – not only if it is placed



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► HorsePro

► Website:

www.horsepro.no

www.competit.no

► Contact:

sigbjorn@horsepro.no

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THANK YOU FOR YOUR ATTENTION!

