

National Statistics of Embryo Transfer Activity in Europe 2017



AETE

Association Européenne des Technologies de l' Embryon

Association of Embryo Technology in Europe



Data collection

Data was requested from 38 countries

6 countries didn't reply / could not submit data

32 countries answered (82 %)

- (4/32 reported no activity in ET in any species)



Data reports

1st Henrik Callesen, Denmark

2nd Jedrzej Jaskowski, Poland

3rd Hubert Cramer, Germany

4th Viktor Madison, Ukraine

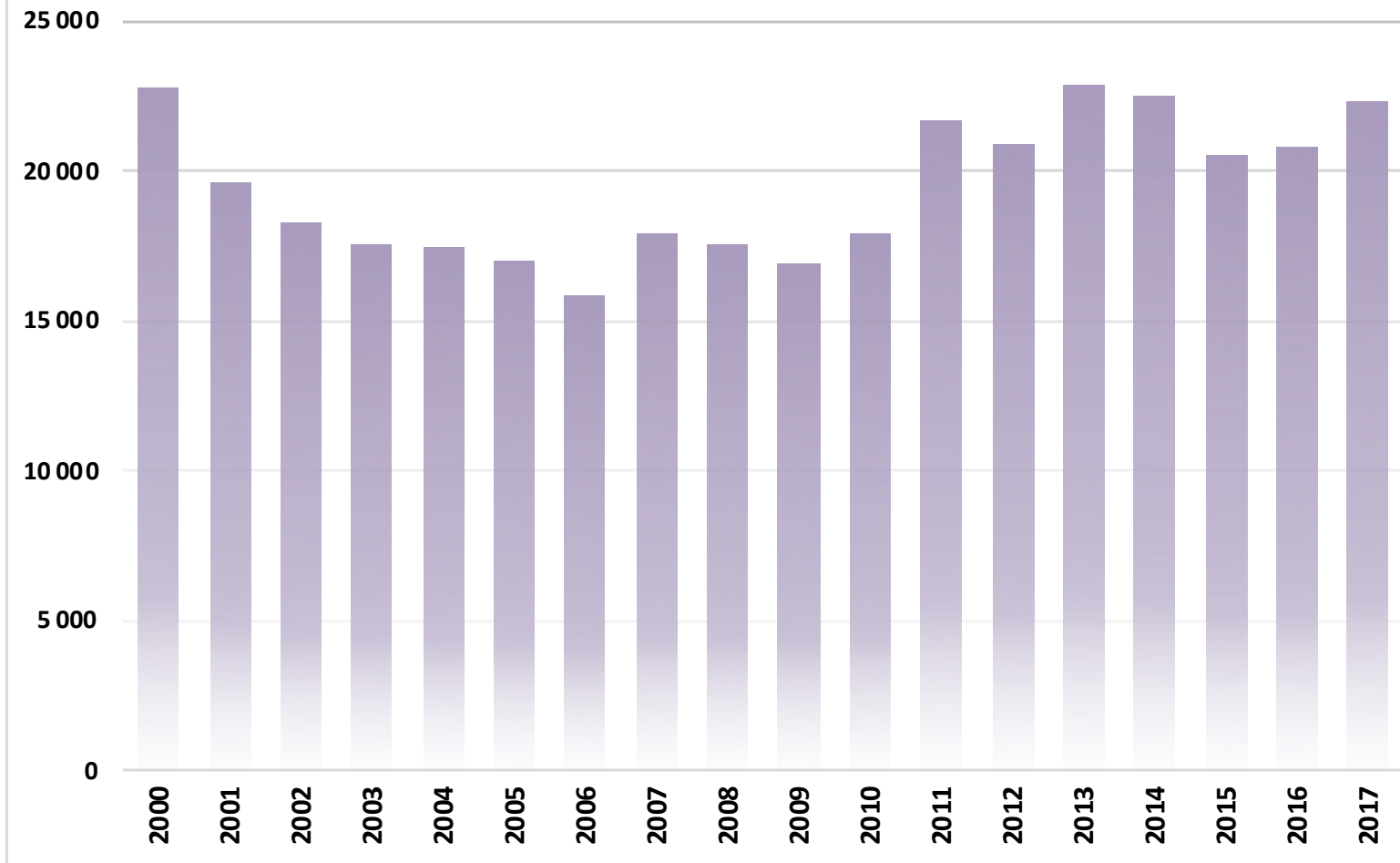
5th Friedrich Führer, Austria



Bovine *In vivo* embryo production



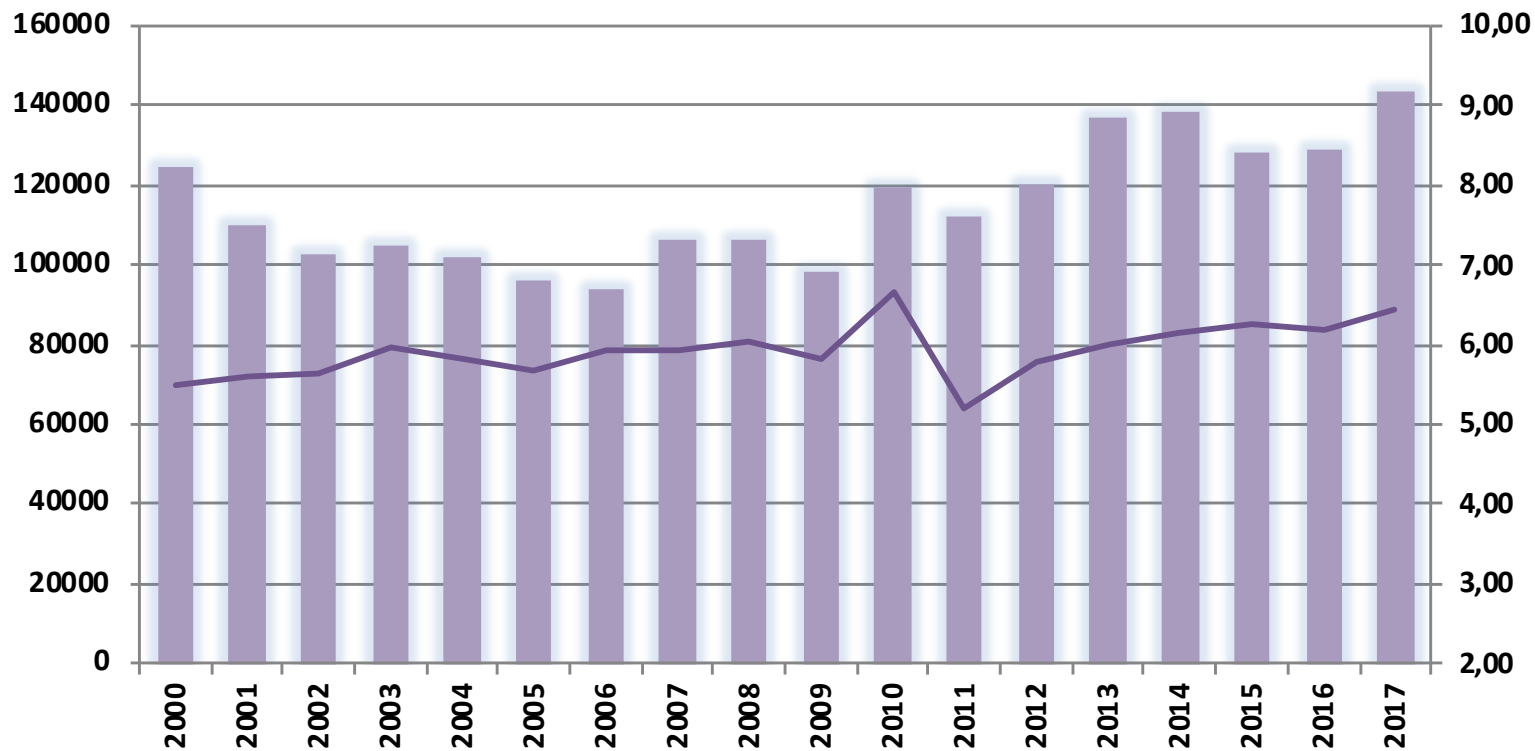
EMBRYO COLLECTIONS



22 316 collections (2016: 20 783)



TRANSFERABLE EMBRYOS EMBRYOS/ COLLECTION



143 458 embryos produced, 6.4/ collection (2016:128 877)



Country	Collections
France	6729
Germany	3412
Italy	2500
Netherlands	2493
Russian Federation	1855
Belgium	1160
Ireland	785
Denmark	759
Spain	551
Switzerland	543
Finland	310
Austria	271
Poland	226
Luxembourg	212
Sweden	130
Portugal	102
United Kingdom	61
Hungary	60
Israel	60
Norway	60
Slovenia	11
Ukraine	10
Latvia	6
Serbia	6
Lithuania	4

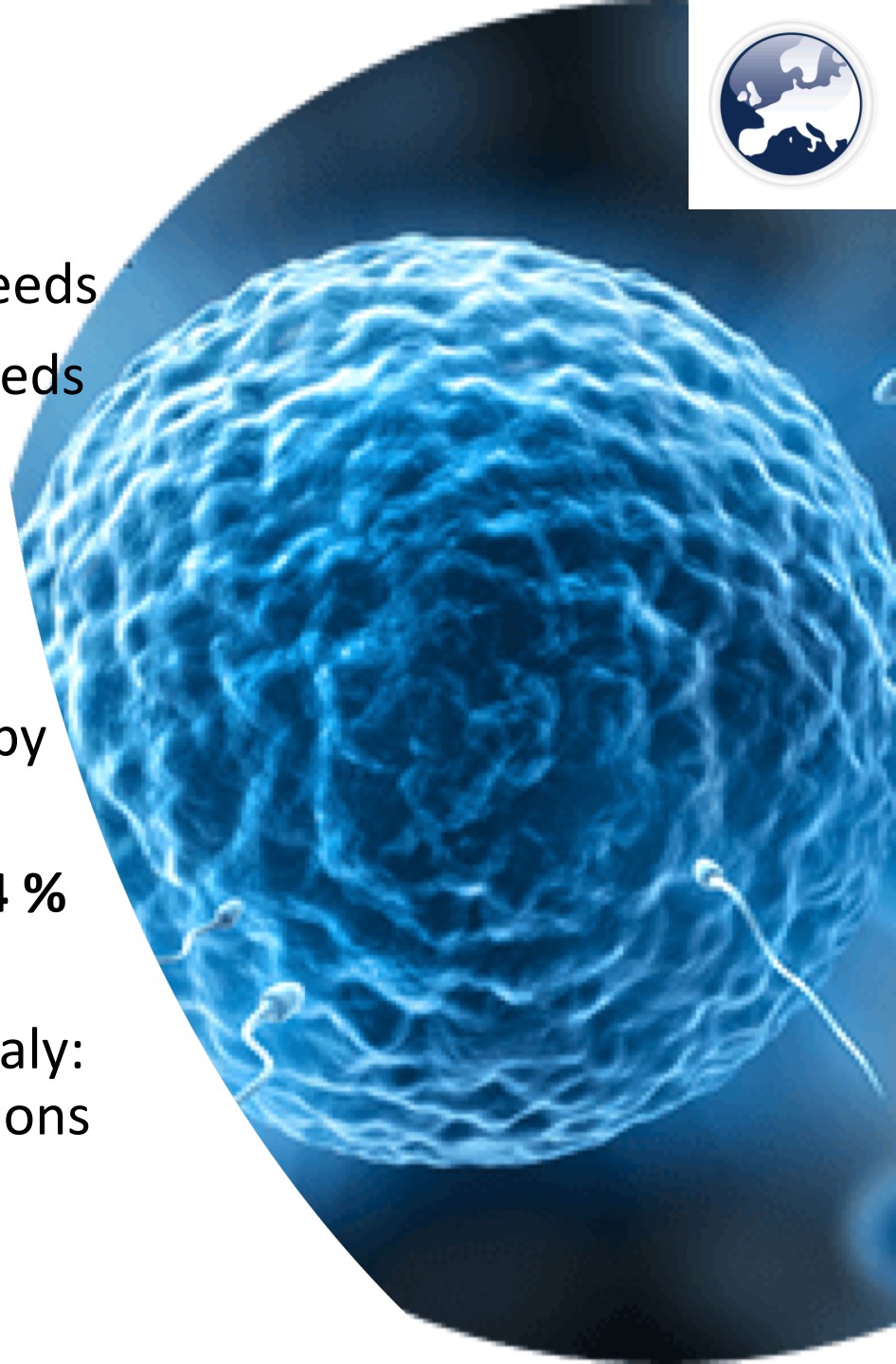
Countries
sorted by
no. of
collections

Some features



- 79,1 % of collections on dairy breeds
 - 20,9 % of collections on beef breeds
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- Sex-sorted semen was reported by 14 countries
- Sex-sorted semen was used in **14 %** of all collections
- Switzerland, Spain, Poland and Italy: sexed semen in ≥ 40 % of collections



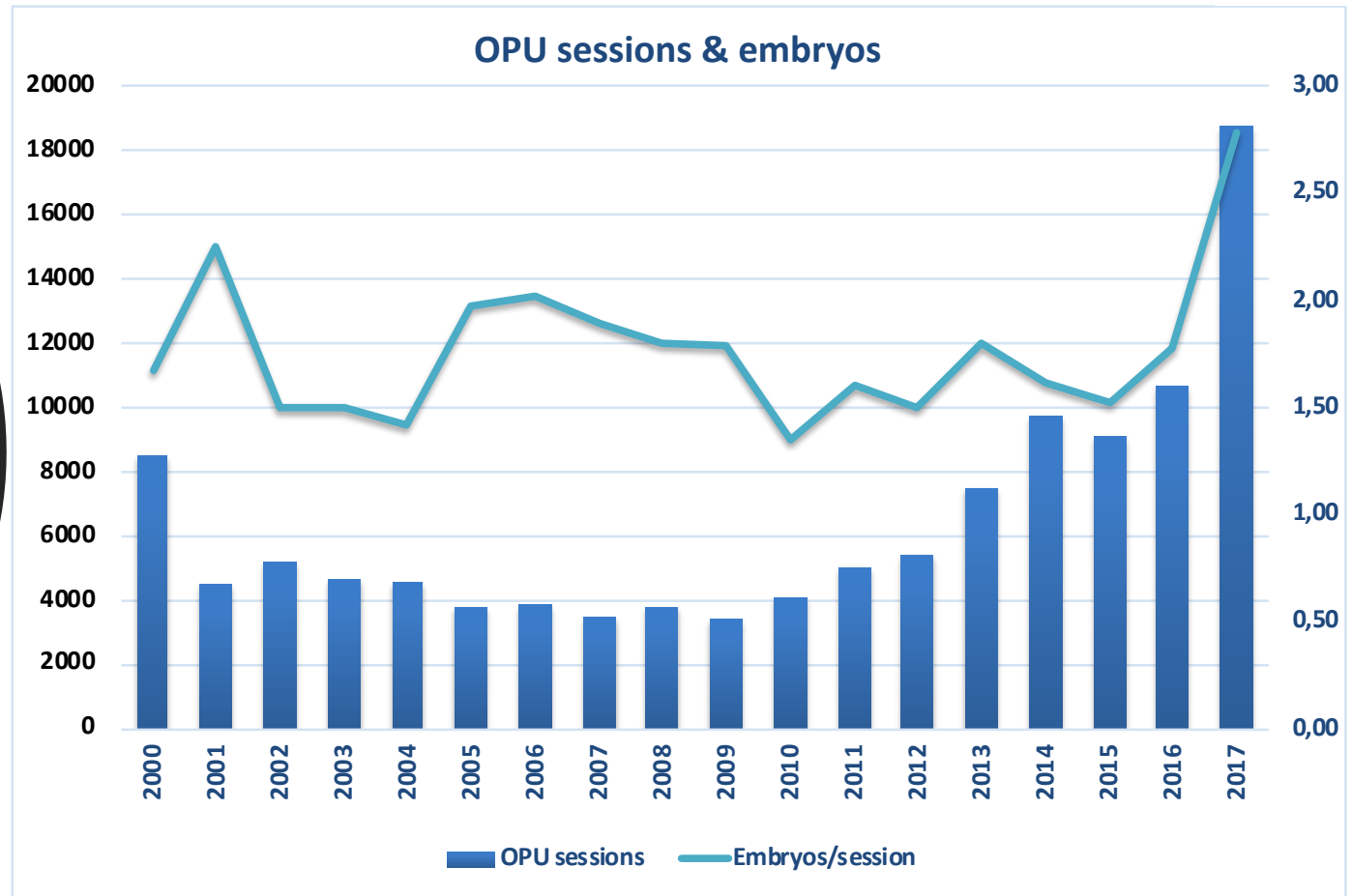


Bovine *In vitro*
embryo production





Increase in
OPU
activity



18 684 OPU-sessions (2015: 10 651)



Country	Sessions
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Russian Federation	7758
Netherlands	7345
Germany	1020
Spain	839
France	691
Italy	482
Finland	455
Switzerland	41
United Kingdom	39
Poland	14

OPU - IVP



OPU: breed, stimulation and semen type

Breed

- 75 % of OPU sessions on dairy breeds

Stimulation

- 49 % of OPU sessions reported with ovarian stimulation

Semen type

- Sexed semen was reported in 36 % of sessions (21 % in 2016)



IVP from slaughtered donors

Country	Donors
Italy	16
Netherlands	21
Russian Federation	34
Spain	235
Switzerland	3
Total	309

2,9
embryos/donor



Bovine embryo production 2017

Transferable embryos produced:

- In vivo 143 458
 (2016: 128 877)

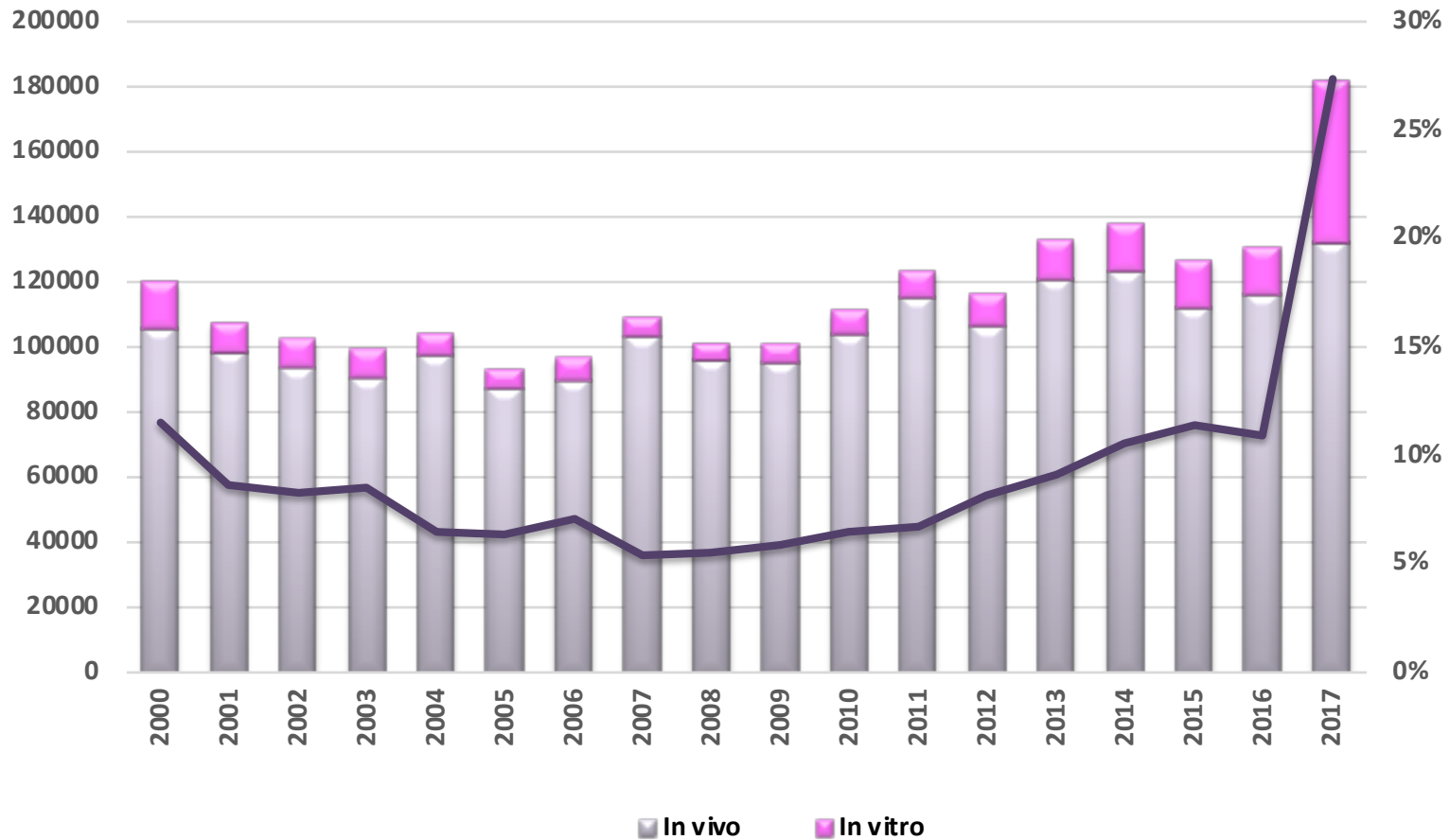
- In vitro 52 879
 (2016: 19 974)

= 196 337 (2016: 148 851)



Bovine embryo transfer In vivo & In vitro

Transferred embryos (% IVP)



181 922 (2016: 130 635)



Countries
>1000
transfers

Country	Total transfers
Russian Federation	41670
Netherlands	39274
France	37237
Germany	22875
Italy	7400
Belgium	6328
Spain	4677
Switzerland	4045
Denmark	4000
Ireland	3853
Finland	3308
Austria	1675
Poland	1217
Luxembourg	1205



Embryo export

- 3240 embryos were reported for export (2016: 2927)
- 11 countries
- No report on export of *IVP* embryos

Austria

Belgium

Denmark

Finland

France

Luxembourg

Netherlands

Norway

Spain

Switzerland

United Kingdom



Sexing and genotyping of embryos

- 3 countries:
 - France, Netherlands, Germany
- 4018 embryos reported genotyped (1099 were IVP embryos)

2016: 2392 genotyped embryos (no IVP)



Embryo production in other species

Equine



In vivo



- France, Italy, Netherlands, Switzerland, Sweden, Spain, Poland, Russia, Finland

Embryo production		Embryo transfer	
Collections	Embryos	Fresh	Frozen
2173	1211	1204	6
0.56 embryos/ collection			



IVP

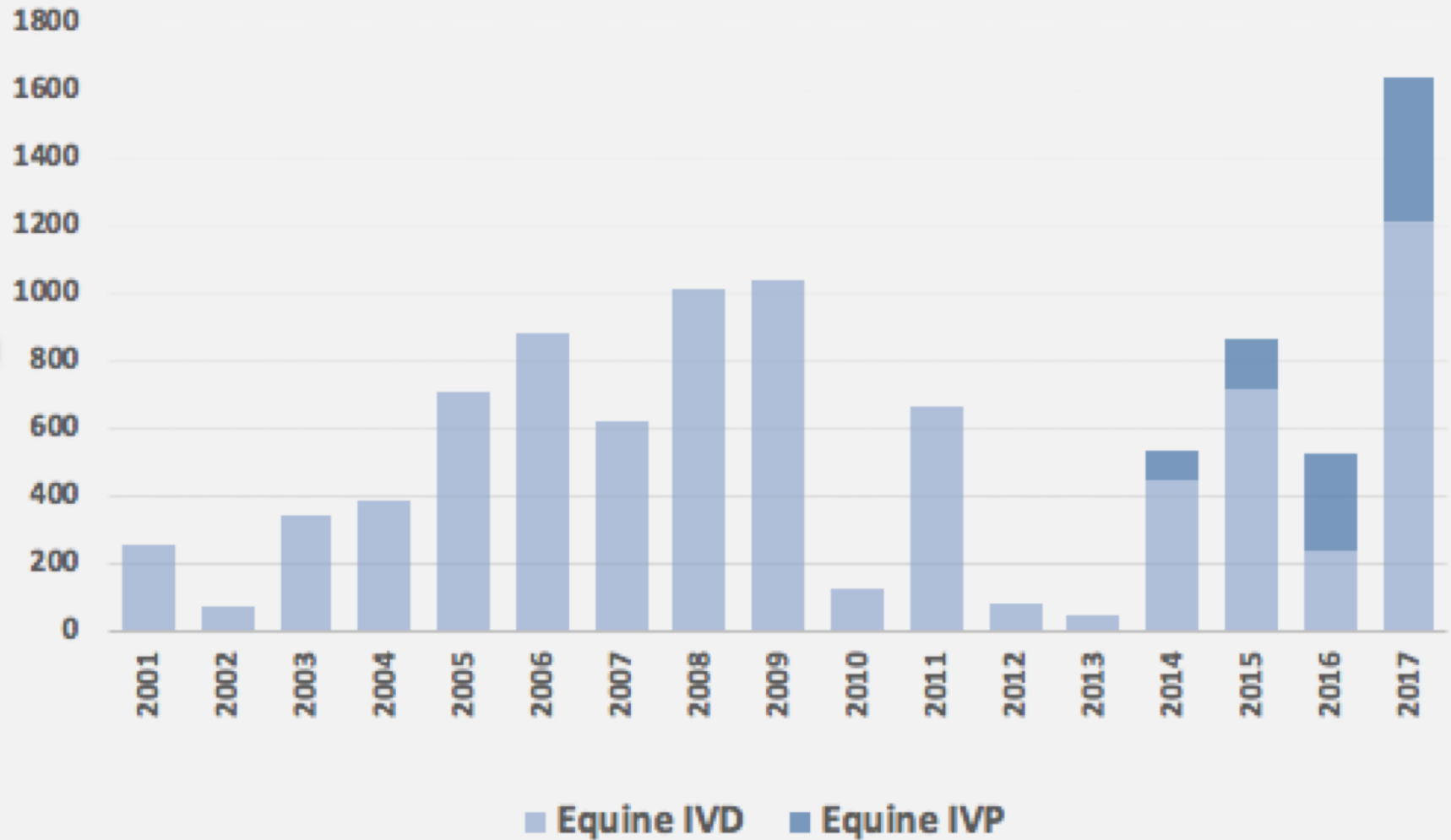
- Italy, Netherlands, Switzerland

IVP Embryo production			Embryo transfer	
Sessions	Oocytes	Embryos	Fresh	Frozen
1203	13 888	1142	83	346
0.95 embryos/ session				



Chart Area

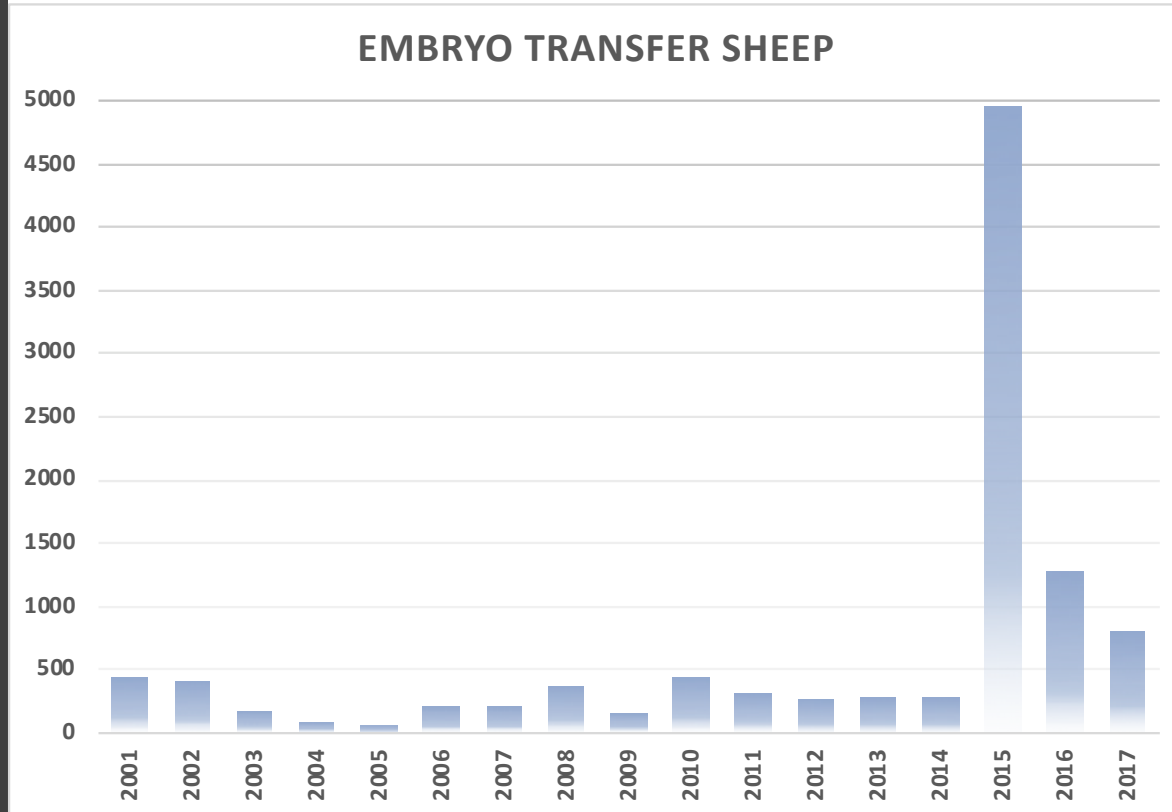
EMBRYO TRANSFER EQUINE





- United Kingdom
- Sweden
- France
- Hungary

- 50 % of embryos were foreign origin (frozen)



To conclude year 2017

Slight increase in reported *In vivo* embryo collections

Highest number of transferable *In vivo* embryos produced since 1999

Remarkable increase in reported *In vitro* embryo production -> highest number of embryos produced in the history of AETE data collection

Genotyping of embryos continued to increase, IVP embryos included



Tables are available on AETE website:
Electronic Proceedings

Graphs and overview on the website:
Statistics 2017 PDF
(will be uploaded after the meeting)

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Thank You, all data collectors!