

# **MEMBER STATE (& THIRD COUNTRIES) REPORTS FOR AVIAN AVULAVIRUSES 2018**

**Based on responses to the questionnaire  
received**

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**26<sup>th</sup> Annual meeting of the National Reference Laboratories (NRLs) for Avian Influenza  
and Newcastle disease of European Union Member States 2020**

# ● Questionnaire 2019 - Response rate

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- Invited Laboratories: 31 (30 Countries)
- Responses received: 30/31 (96.7%)
  - EU Laboratories 28/29 (96.5%)
  - Non-EU laboratories 2 (100%)

# Responding laboratories

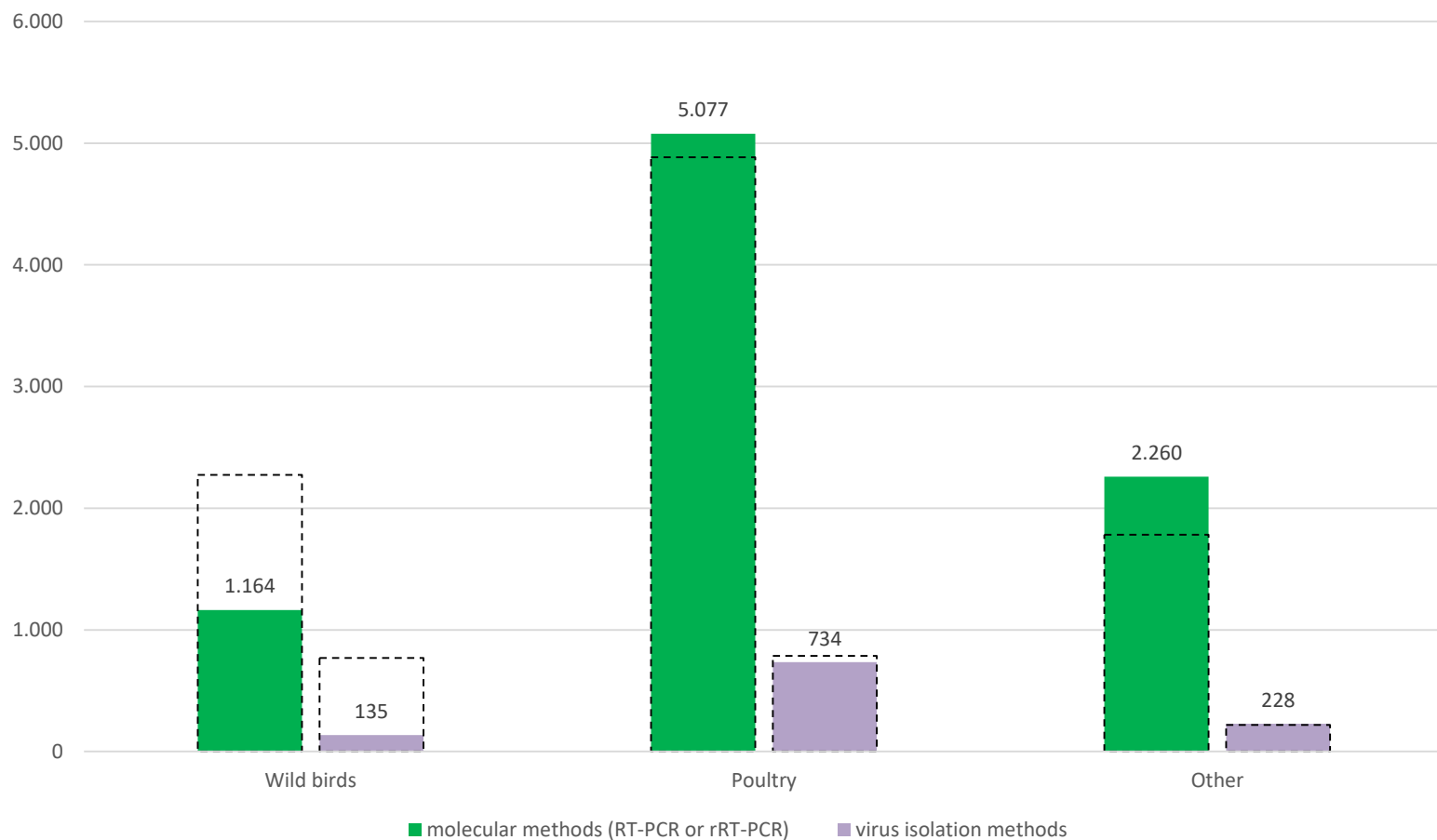
- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Republic of Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- North Macedonia
- The Netherlands
- *Norway*
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- *Switzerland*
- UK

# Laboratories with no Avian Avulaviruses isolated or detected

- Czech Republic
- Estonia
- Finland
- Lithuania
- North Macedonia
- The Netherlands
- Norway
- Poland

2019 vs 2018 vs 2017:  
**8 vs 6 vs 12**

# NDV 1.1 How many samples from poultry or wild birds were processed by molecular methods (RT-PCR or rRT-PCR) or virus isolation methods?



2018 results are shown in dotted line

# Avian Orthoavulavirus 1 (AOaV-1) positive samples in 2019

Country	RT-PCR positive samples	Country	RT-PCR positive samples
Austria	6	Italy	39
Belgium	8	Latvia	3
Bulgaria	1	Luxembourg	38
Croatia	1	Portugal	4
Cyprus	8	Romania	1
Denmark	18	Slovakia	3
France	4	Slovenia	7
Germany	121	Spain	26
Greece	2	Sweden	2
Ireland	32	United Kingdom	22
<b>Total = 346</b>			

**388 in 2018**

# Velogenic AOaV-1 viruses detected in poultry (excluding pigeons) in 2019

MS(s)	Bird species	ICPI	Number of positive samples	Amino Acids at the F cleavage site	Genotype (Dimitrov classification)
Bulgaria	Chicken	1.96	1	RRRQKRFIG	VII.2
Romania	Chicken	1.71	1	SGGRRQKRFIG	VII.1.1

The Bulgarian NDV of 2019 belongs to lineage VII.2 (old VIII) and clusters with viruses of 2011 - 2018 identified in Israel, Pakistan, Indonesia, Iran, Jordan and Belgium

The Romanian NDV of 2019 belongs to lineage VII.1.1 (old VIIb, d, e, j) and is grouped with viruses from Bulgaria, Serbia and Ukraine identified between 2003 and 2011

# ● Lentogenic AOaV-1 viruses detected in poultry in 2019

MS(s)	Bird species	Number of positive samples	Amino Acids at the F cleavage site	Genotype reported (Dimitrov classification)
<b>Belgium</b>	Chicken	4	GRQGRL	II
	Chicken	1	GRQGRL	I.1.2.1
	Duck	1	GKQGRL	n.a.
<b>Germany</b>	Chicken	6	GRQGRL	n.a.
<b>Ireland</b>	Chicken	12	GKQGRL	II
<b>Italy</b>	Chicken	1	GKQGRL	I.1.2.1
<b>Slovenia</b>	Poultry	6	GKQGRL	II
<b>Spain</b>	Duck	1	GKQGRL	I.1.2.1
<b>UK</b>	Chicken	1	GRQGRL	II



# ● Pigeon and Dove AOaV-1 detected/isolated

MS(s)	Bird species	ICPI	Number of positive samples	Aminoacids at the F cleavage site	Reported Genotype
<b>Austria</b>	Pigeon (wild)	n.d.	6	RRQKRF	VI.1.1
<b>Belgium</b>	Pigeon	n.d.	1	RRQKRF	PPMV-1
			1	RRGKRF	
			1	KRQKRF	
<b>Croatia</b>	Dove (domestic)	n.d.	1	RRQKRF	XXI.2
			1		
<b>Cyprus</b>	Pigeon	n.d.	3	RRQKRF	VI.2.1.1.2.2
	Pigeon		1		XXI.1.1
	Pigeon		1		XXI.2
	Collared dove		3		XXI.2
<b>France</b>	Pigeon (domestic)	n.d.	1	RRQKRF	VI
	Pigeon (wild)		1		
	Dove (domestic)		1		
	Dove (wild)		1		
<b>Germany</b>	Pigeon	n.d.	115	RRQKRF KRQKRF RRRKRF	2.VI
<b>Greece</b>	Dove	n.d.	2	GRQGGRF	XXI.2
<b>Ireland</b>	Pigeon	n.d.	18	n.a.	PPMV1
<b>Italy</b>	Pigeon (domestic)	0,3 – 1,40	12	RRQKRF	VI.1.1
	Dove (wild)	n.d.	17	RRQKRF	VI.1.1
	Dove (domestic)	1,16	1	RRQKRF	4a

# ...Continued Pigeon and Dove AOaV-1 detected/isolated

MS(s)	Bird species	ICPI	Number of positive samples	Amino Acids at the F cleavage site	Reported Genotype
Latvia	Pigeon (domestic)	n.d.	3	n.a.	PPMV-1
Luxembourg	Pigeon	1,38	35	RRQKRF	XXI.1.1
	Wood pigeon	n.d.	3	RRQKRF	XXI.1.1
Slovakia	Turtle dove	n.d.	1 1 2	KRQKRF GRRQKRF RERRQKRF	4a/VI.1.1 VI.2.1.1.2.1 XXI.2
Slovenia	Pigeon (wild)	n.d.	1	RRQKRF	Virulent AOaV 1
Spain	Dove	n.d.	13	RRQKRF RRQKRF RRRKRF	4a 4b/VI.1.1 n.a.
	Pigeon		5	RRQKRF	4b/VI.1.1
Sweden	Pigeon	n.d.	2	RRQKRF	VIa/VI.2.1.1.1
Switzerland	Pigeon (domestic)	n.d.	4	RRQKRF	PPMV-1
	Pigeon (wild)		8		
UK	Pigeon	n.d.	21	GRRQKRF	VI

# ● Wild birds AOaV-1 detected/isolated

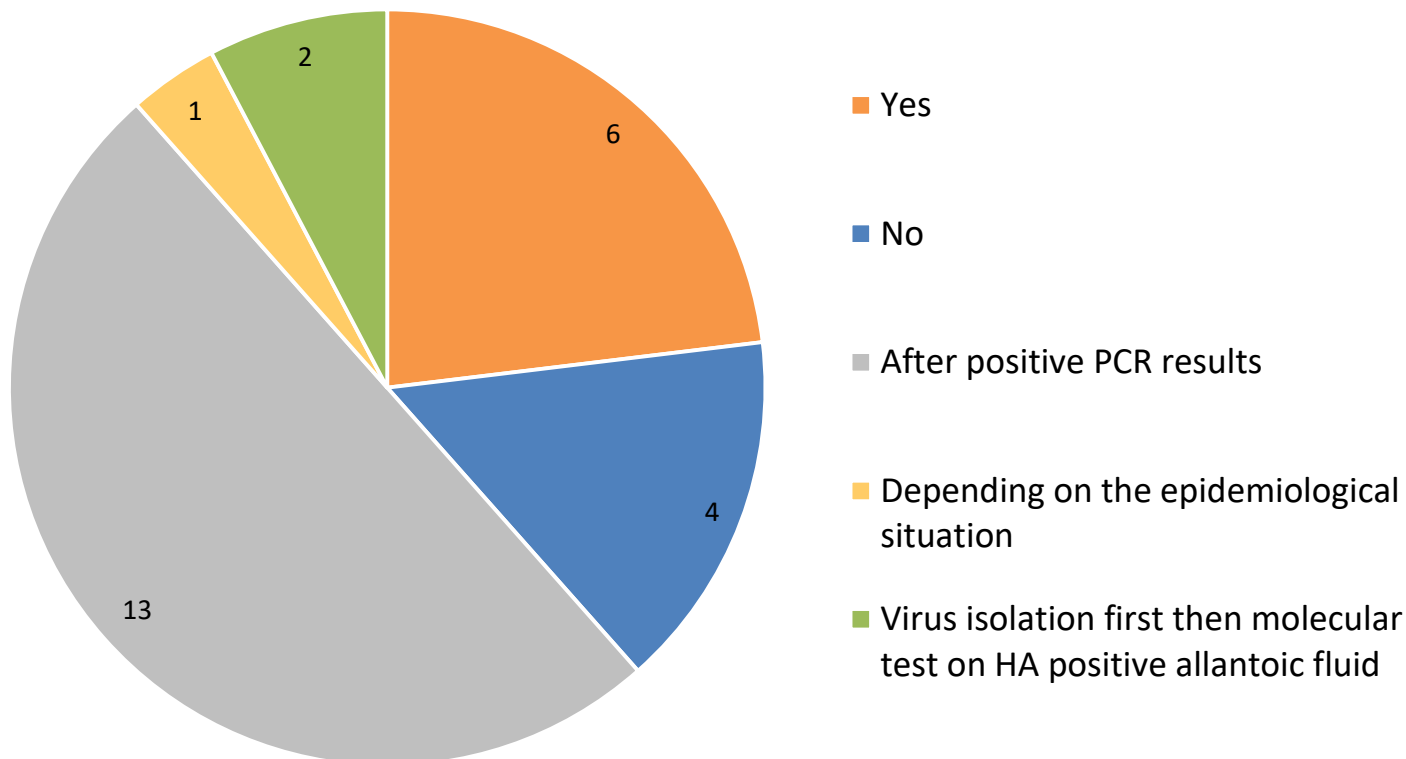
MS(s)	Bird species	Number of positive samples	ICPI	Amino Acids at the F cleavage site	Reported Genotype
Denmark	Eurasian teal	1	n.d.	ERQERL	-
		1		GKQGRL	
Ireland	Rook	1	n.d.	n.a. – (poor Ct)	-
	Hen harrier	1	n.d.	n.a. – (poor Ct)	-
Italy	Gull	1	n.d.	GKQGRL	I.1.2.1
	Gull	1	n.d.	RRQKRF	VI.1.1
	Mallard	1	n.d.	GKQGRL	I.1.2.1
	Swan	1	n.d.	GKQGRL	I.1.2.1
	European scops owl	1	n.d.	RRQKRF	VI.1.1
Spain	Wild bird	7	n.d.	RRQKRF	4a

## Other APMVs detected

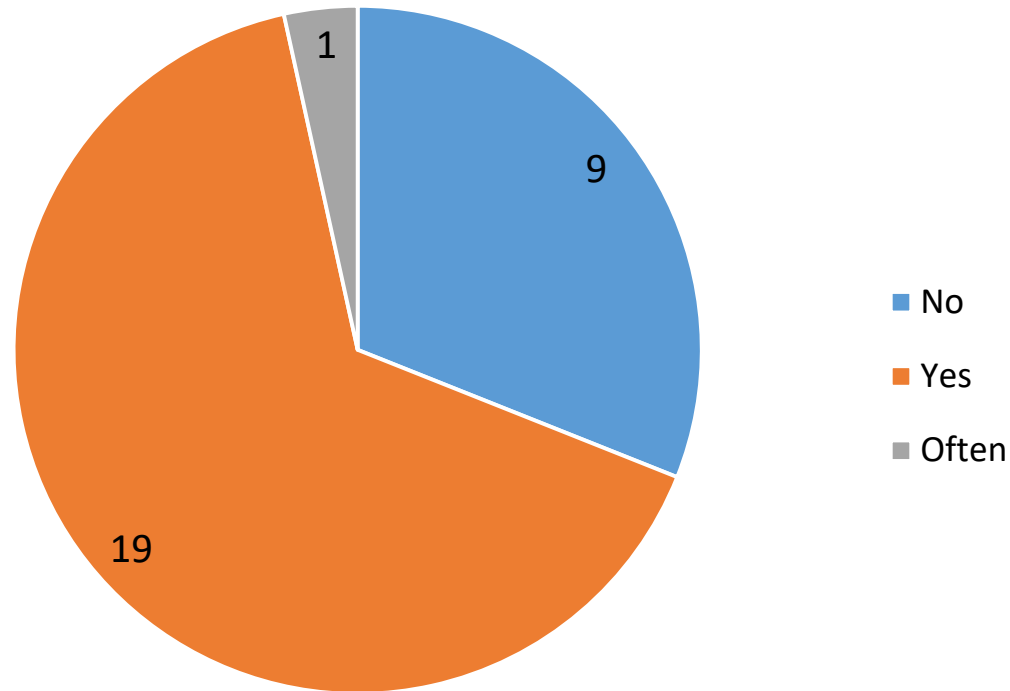
MS(s)	Bird species	Number of positive samples	Amino Acids at the F cleavage site	Genotype/conclusions
Denmark	Mallard	5	n.d.	APMV-4
	Mallard	6	n.d.	APMV-6

- Very few non AOaV-1 reported: lack of reporting or lack of isolation/identification?

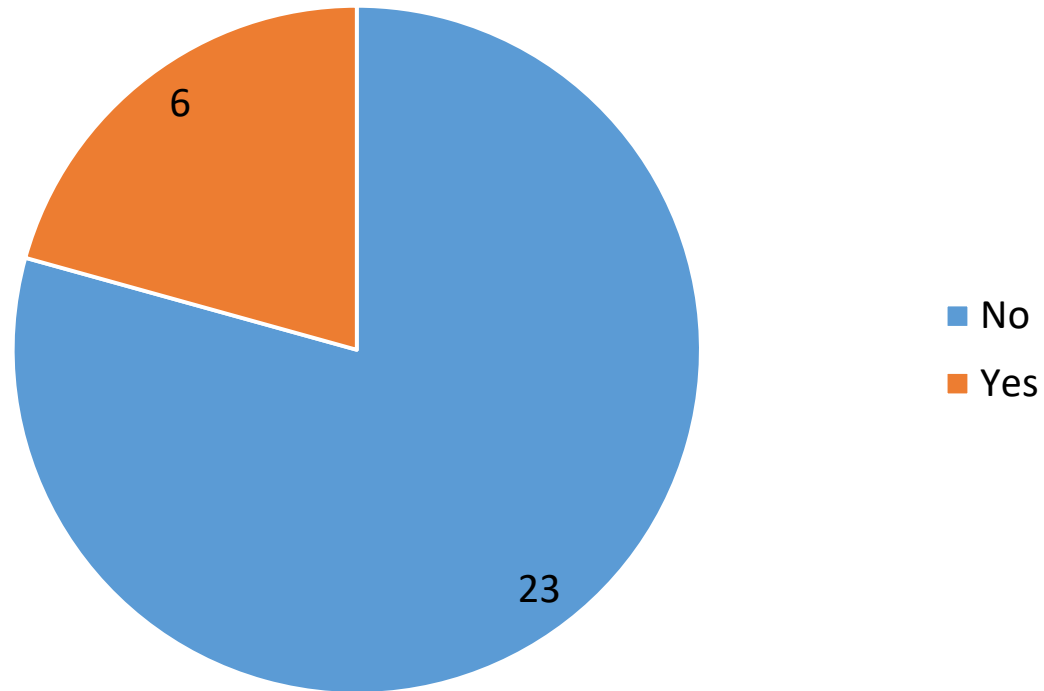
## NDV 1.2. Do you routinely inoculate eggs with samples from Newcastle disease suspicions in poultry, in parallel with molecular testing (RT-PCR or rRT-PCR) or after positive PCR results?



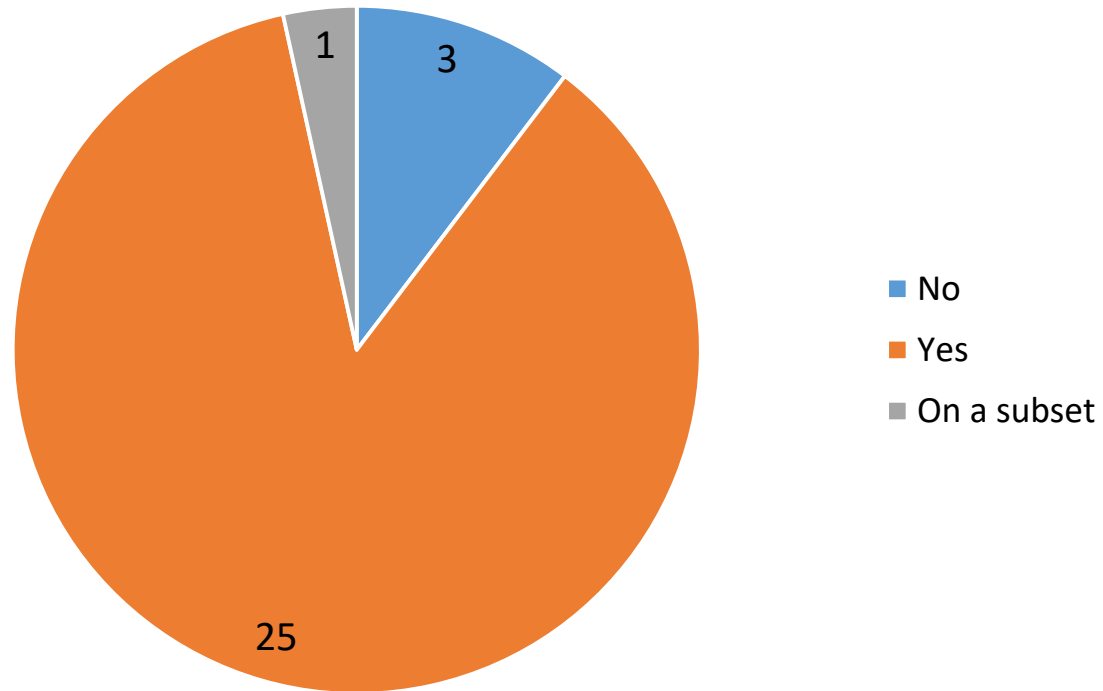
● **NDV 1.3. When a suspicion for AI is negative, is testing for ND systematically carried out?**



● **NDV 1.4. Do you perform the ICPI test on APMV-1 strains?**



● **NDV 1.5. When a APMV-1 is detected, is sequencing of the F gene systematically carried out?**

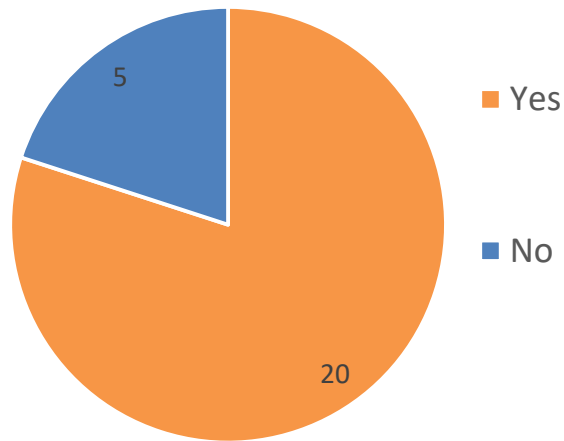




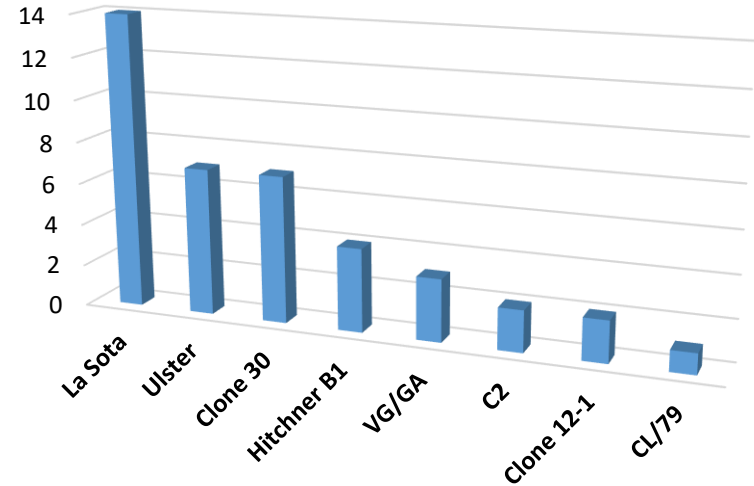
# ND vaccination in the EU



Is vaccination for NDV applied in your country?



Vaccine strain most frequently used



## ● Non ND vaccinating countries – serological surveillance

Country	Tested sera	Positive sera
<b>Finland</b>	<b>8523</b>	<b>0</b>
Broiler	6908	0
Turkey	600	0
Laying hens	955	0
Geese	60	0
<b>Norway</b>	<b>5313</b>	<b>0</b>
Chicken	4593	0
Turkey	360	0
Duck	240	0
Geese	120	0
<b>Sweden</b>	<b>10751</b>	<b>0</b>
Chicken	10051	0
Turkey	700	0
<b>Switzerland</b>	<b>1130</b>	<b>0</b>
Chicken	850	0
Turkey	280	0
<b>Total</b>	<b>25717</b>	<b>0</b>