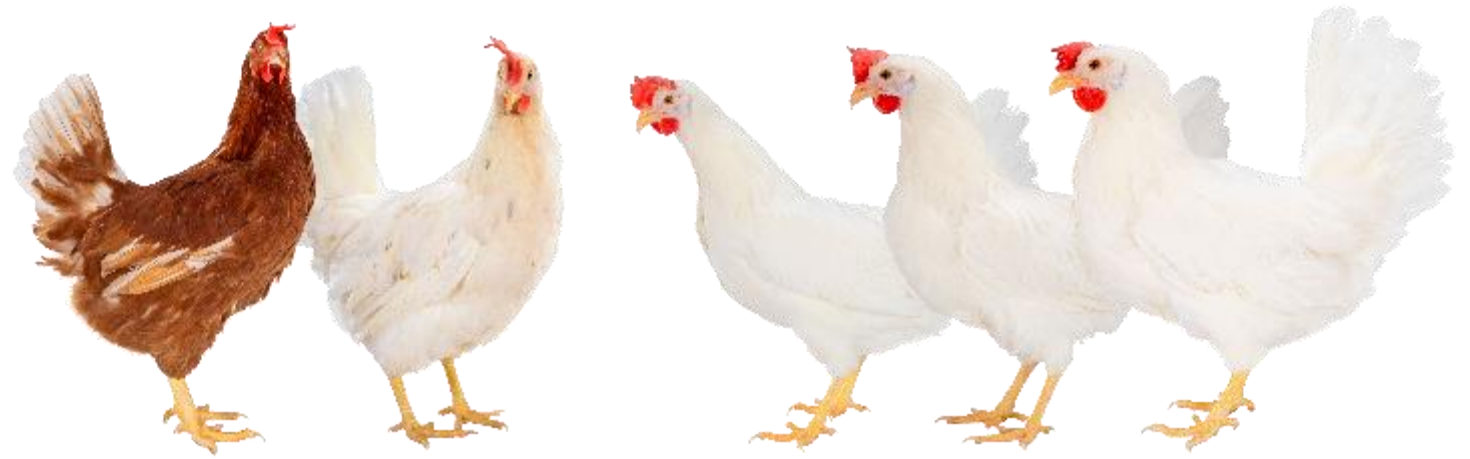




The key to your profit!



Regulations and animal welfare: Europe Update

H&N NA Academy Sept 22st 2021

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Regulations and Animal welfare

Europe

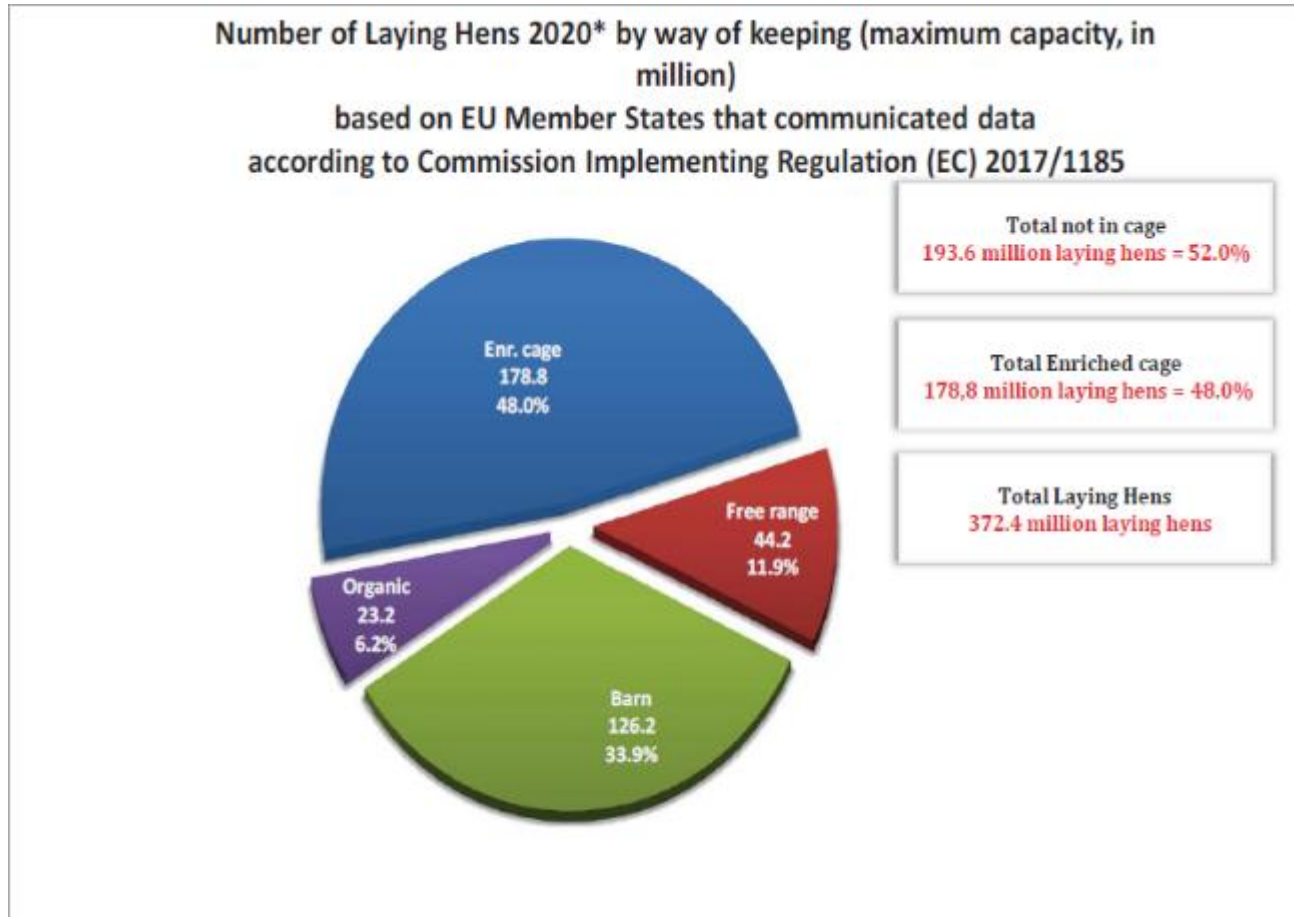
- Cage/Cage-free production
- Beak treatments
- Culling DOC (Males)
 - Sex determination
 - Growing males



Global housing systems layers



EU housing systems layers



EU market situation for Eggs 22nd April 2021



Legislation Mandating Changes

- From 2012 the production in traditional cages (550cm²) is forbidden in Europe.
- Production in enriched cages (750cm²) is allowed in Europe.
Bans on these enriched cages by 2027.
- Austria and Switzerland is complete cage-free!

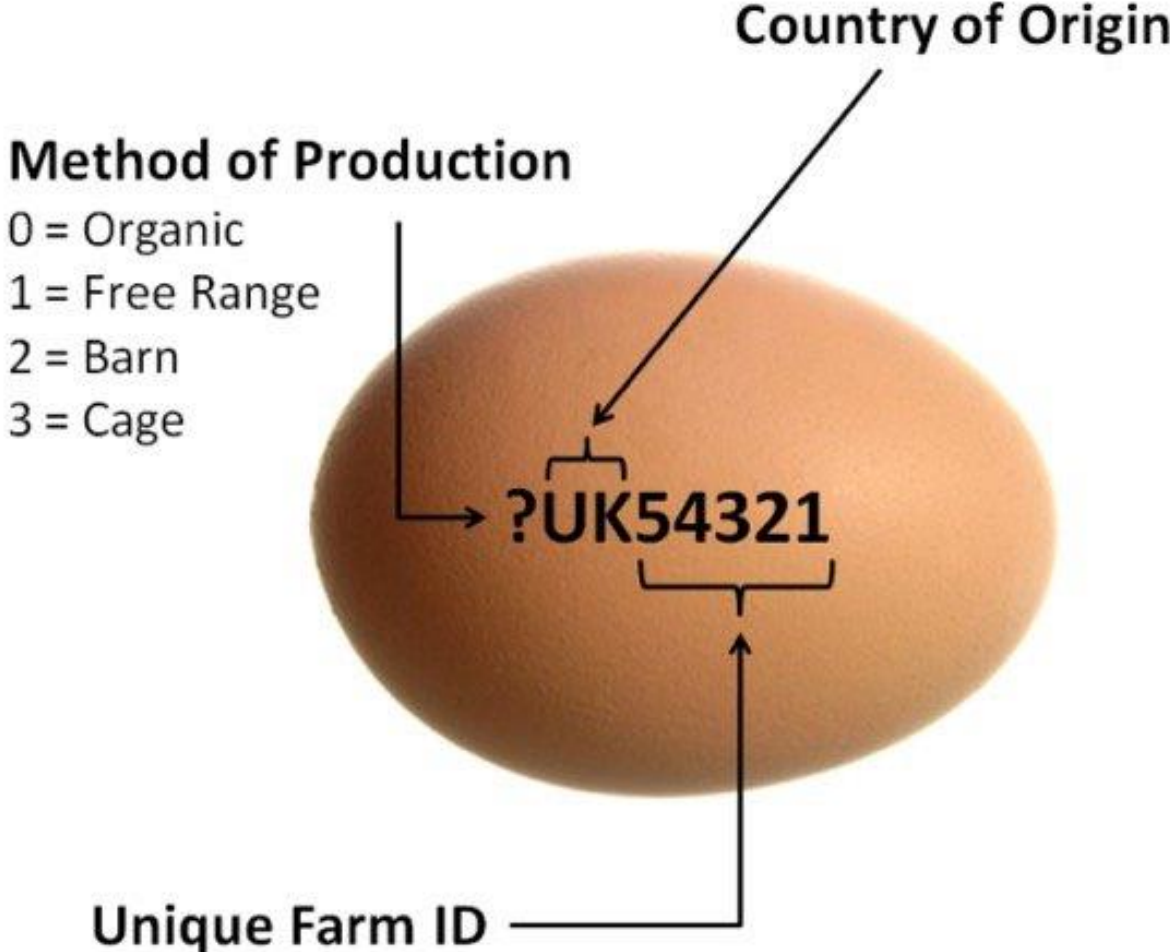
Production EU (372,4 milj)

- 48,0% Enriched cage
- 33,9% Barn/Aviary
- 11,9% Free-Range
- 6,2% Organic



Source: Big Dutchman

Coding off eggs



Customer demanding cage-free

- NL/D/CH/A already NO enriched cage table eggs

Some retailers:

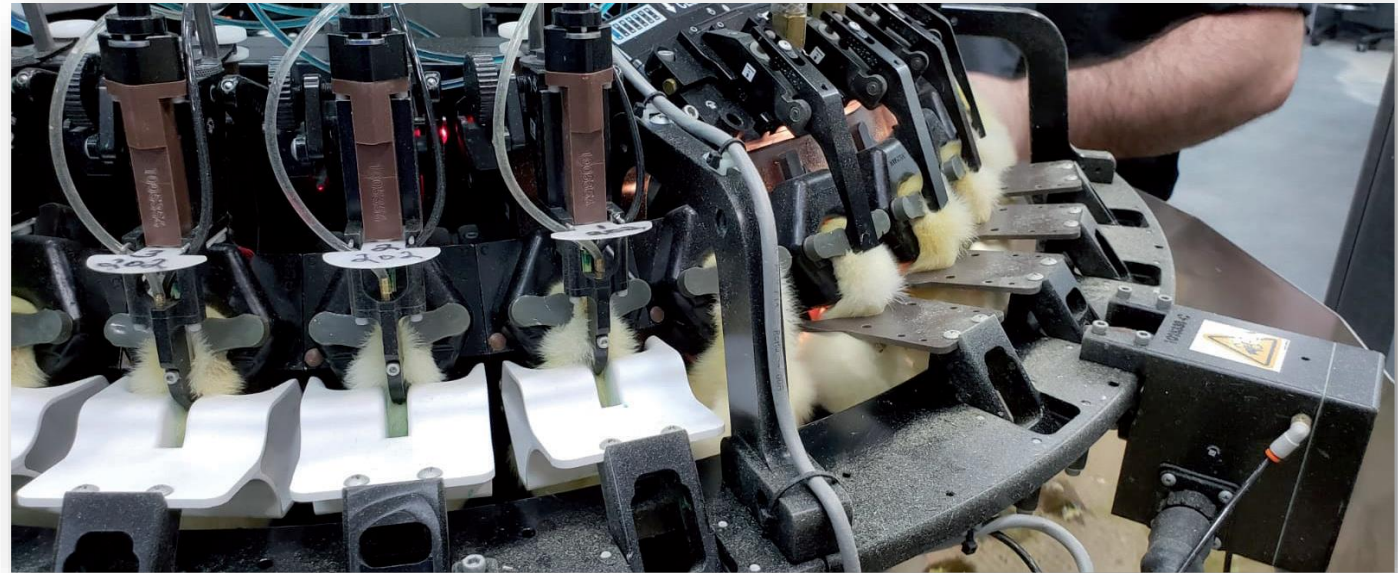
- NO code 2 (Barn) eggs!!!!
- Only code 0-1 and code 2 with better live star



Beak treatment Europe

Banned by law:

- Norway 1974 (non EU)
- Finland 1986
- Sweden 1988
- Switzerland 1992 (non EU)
- Denmark 2013
- Austria 2013
- Germany 2017
- Netherlands 2018



Source: H&N Int.

Beak treatment Europe/UK

Spain/Portugal/France/Italy

More farms produce according **KAT regulations** were beak treatments are not allowed.

No regulations by law till now!

UK

During brexit period last year(s) this topic was parked.

No regulations by law till now!

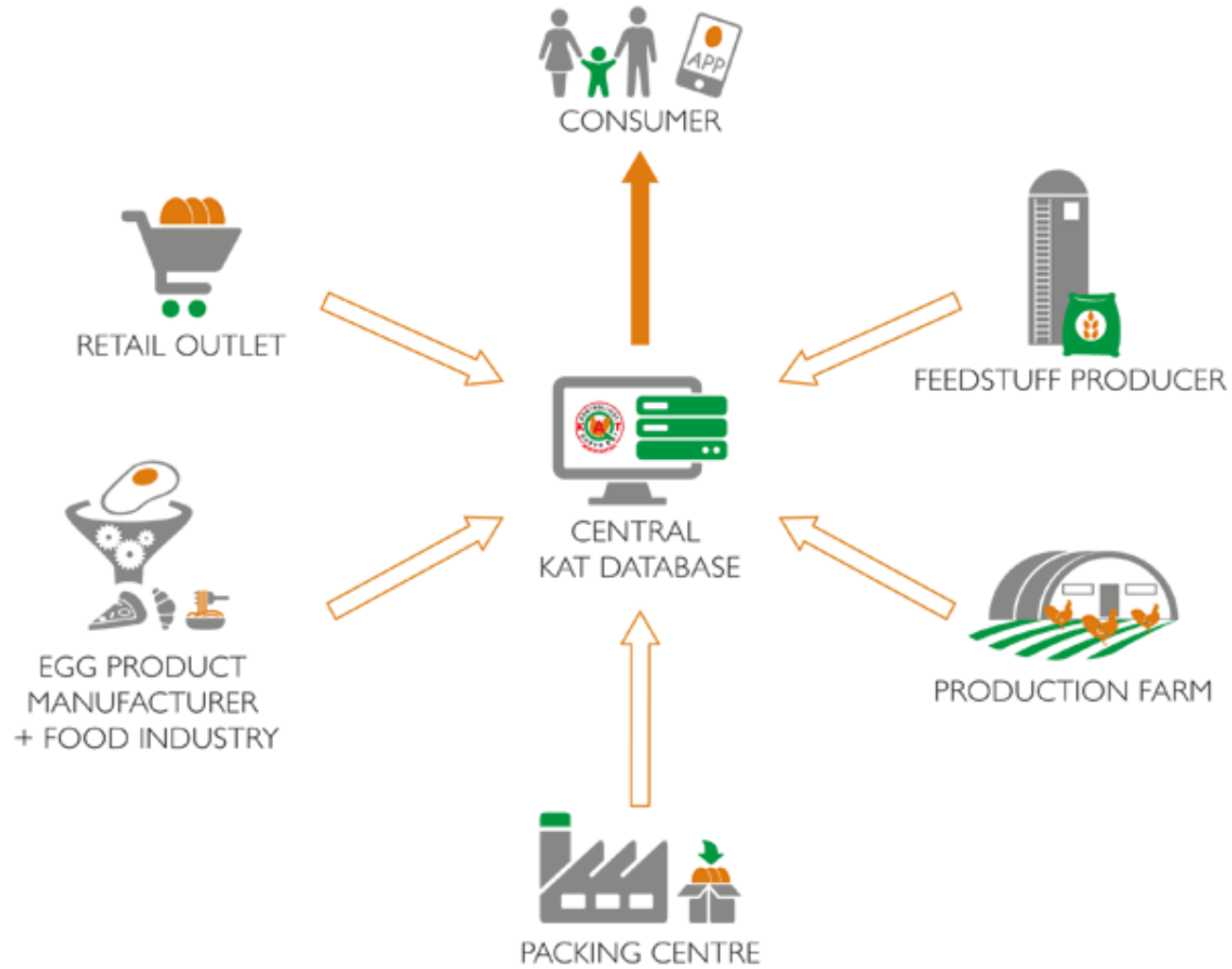
KAT

Association for controlled alternative of animal husbandry

Founded by retailers in 1995



KAT



Regulations EU (KAT) versus US (AHC-UEP)

KAT regulations							
				KAT - Europe		AHC	UEP
						American Humane Certified	United Egg Producers
Parameter				Aviary/Barn		Aviary/Barn	Aviary/Barn
Rearing							
Usable floor space		> June 2022		0.2833 sq ft		5 sq. ft	
		> Jan 2024		0.299 sq ft			
Layers							
Usable living space				1.194 sq ft		Aviary = 1 sq ft	Aviary = 1 sq. ft
Usable floor space				2.39 sq ft		All Litter =1.5 sq. ft	All Litter = 1.5 sq. ft
Nestboxes	(group nest)			8.9653 sq ft/100		9 sq ft/100 layers	9 sq ft / 100 layers
Perches				5,9 inch/layer		6 in/layer	6 in/layer
Feeders	(chain)			3,93 inch/layer		3 in/layer	3 in/layer
	(Pans)			1,57 inch/layer		1.5 in/layer	1.5in/layer
Outdoor space				10.76 sq. ft		21,8 sq. ft	-
Ammonia				no regulations		Less than 10 ppm, not to exceed 25 ppm	Less than 10 ppm, not to exceed 25 ppm
Lighting				3% daylight from total floorspace		10 Lux or 1 FC average	5 FC at feeders and Drinkers
Water				1 nipple/10 hens		1 nipple/10 hens	1 nipple/10 hens
Litter				0,27 sq. ft/ 33% usable floorspace		2 in dry, 15% usable area	15% usable area excluding nest space

Germany/France regulations culling DOC Males

➤ Germany:



>Jan 2022 ban on culling DOC

>Jan 2024 sex determinations before day 7!

➤ France:

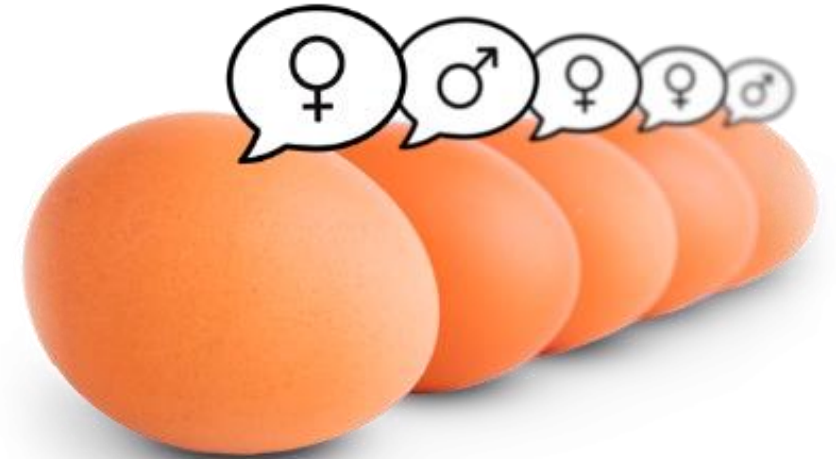


>Jan 2022 ban on culling DOC

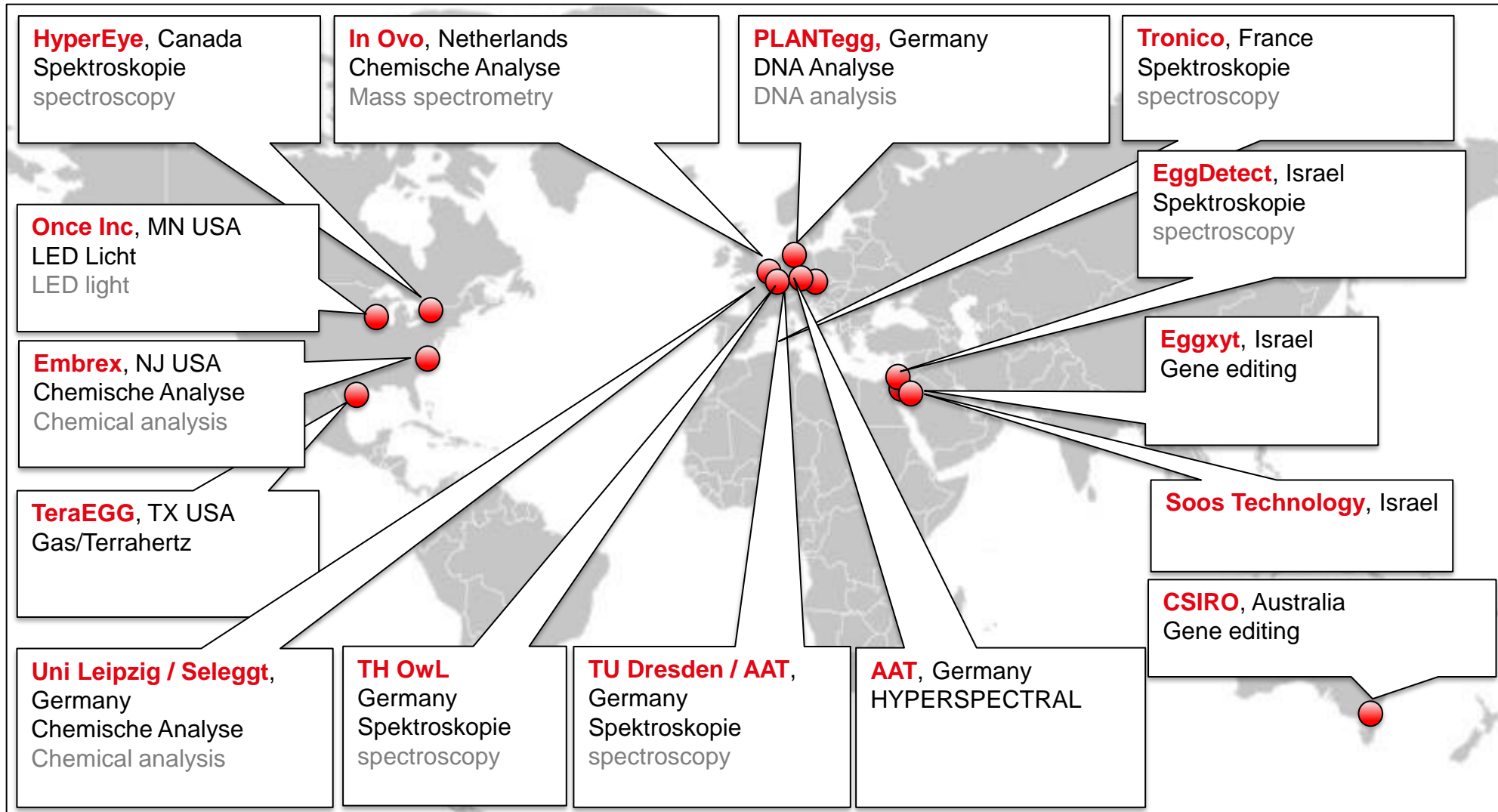
Ban on culling DOC in Europe

➤ Spain/Portugal/Italy/Belgium/Netherlands

Hatchery's start already with preparations, because a lot of request from producers who have KAT certificate.

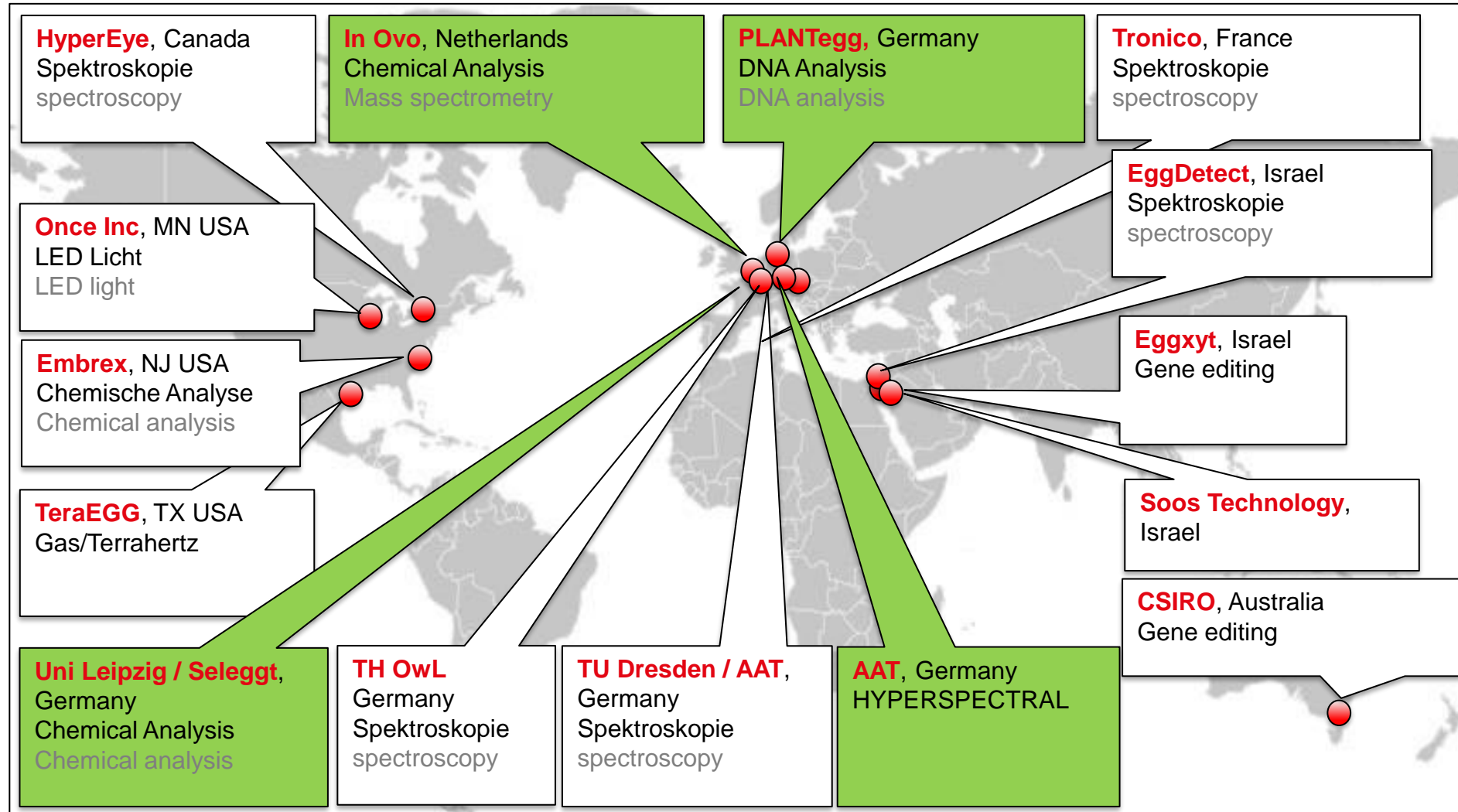


Techniques sex determinations DOC



Source: AAT

Available techniques sex determinations DOC



Source: AAT

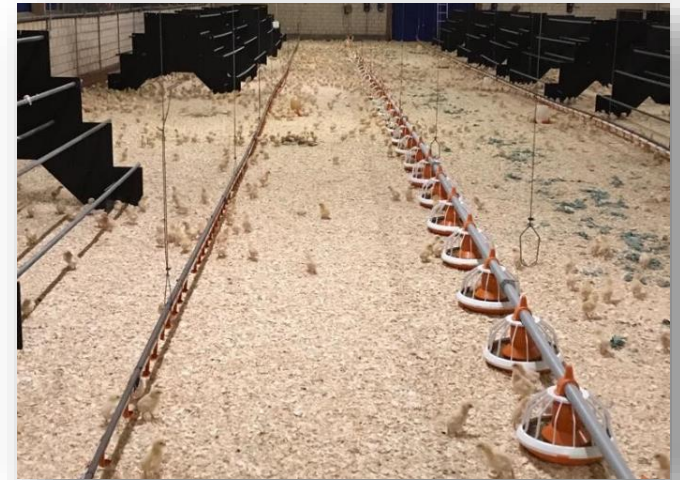
Comparison of procedures

	AAT	Seleggt	Plantegg	In-Ovo
Timing (days)	13	9	9	9
Sample	Image	Allantoic fluid	Allantoic fluid	Allantoic fluid
Sample Collection	n.a.	Laser + Pipette	Laser + Pipette	Needle
Kind of testing	Hyperspectral	Elisa	PCR	Mass Spectrometry
Accuracy	95-97% *	90-97%?	90-97%?	>=95% (claim)
Analysis time	< 1 second	45 min.	60 min.	20 min.
Egg treatment	non invasive	invasive	invasive	invasive
Impact on hatchability	< 0,5%	2-4% ?	2-4% ?	=< 0,5% HOT (claim)
Embryo losses	8-10%	5-10% ?	5-10% ?	=<8% day (claim)
Sexing errors	3-5%	3% (claim) 10% ?	3%(claim) 10% ?	=<5% (claim)
Consumables	non	high	high	low/medium
Capacity/hour/unit	20.000 eggs	3.000 eggs	3.000 eggs	6.500 eggs (claim)
Direct transfer	yes	no	no	no

Source: ELD

Growing Males

- Adapted vaccination program for males (Hatchery/Rearing)
- Only use rearing houses that been approved by **KAT**
- Perches, slats on different levels
- Material to keep the males busy (Pick stones, Alfalfa.....)
- Daily control and registration by farm manager.



Guarantee of the highest animal welfare criteria!

KAT Germany regulations growing males

- (Hatch-Equivalents)

Grow the male chicks from the same hatch as the female chicks

- (Head-Equivalents)

Keep the male chicks from other hatch/hatchery max. 12 months before female hatch. Males should be slaughtered before hatch the females.



Organic production in Germany

- Organic commercial chicks only from Organic PS!
 - > Jan 2022 growing all the males

- Organic males rearing max 21kg/m² and 1m² outdoor range.



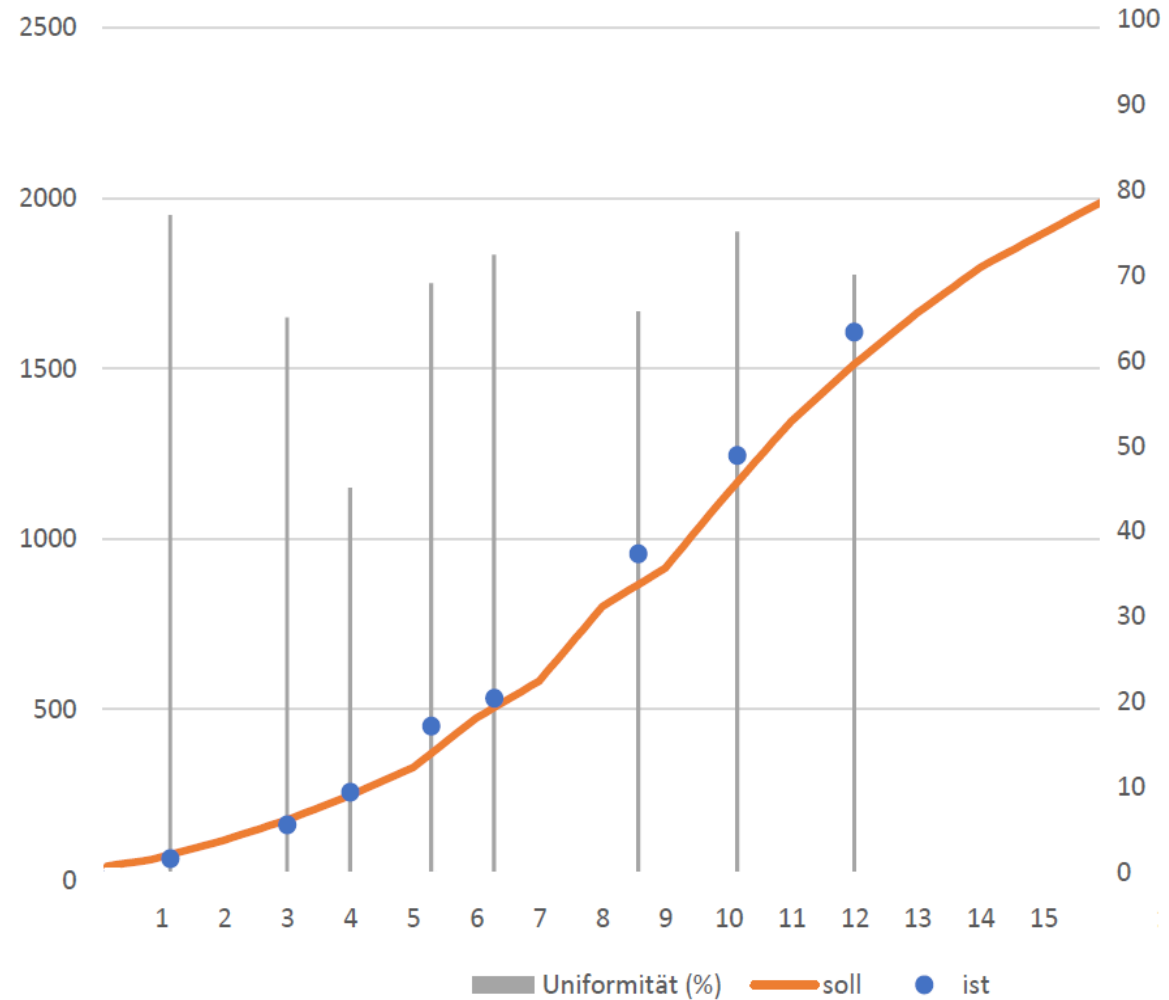
Sources: H&N UK

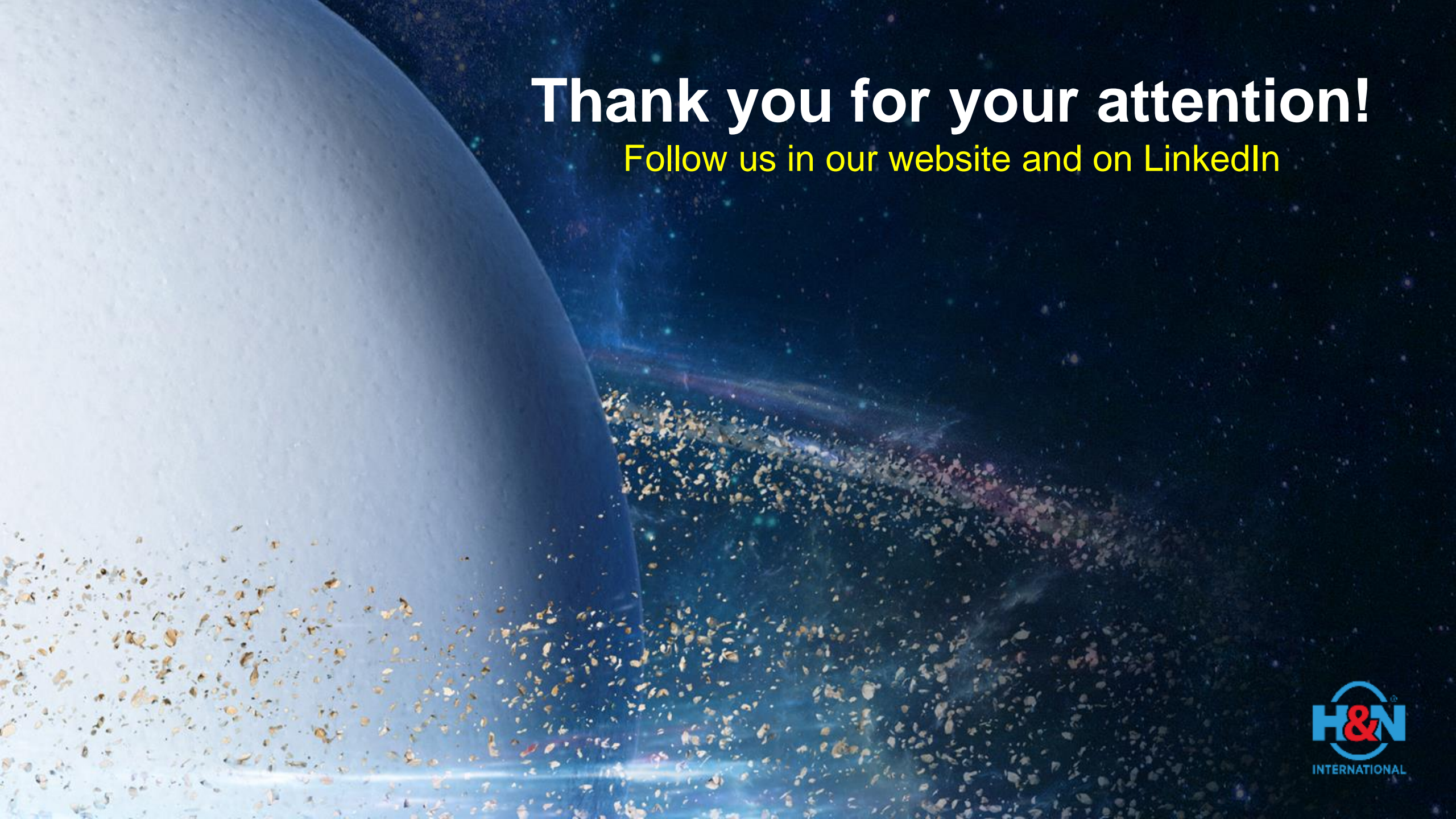
Rearing males

➤ Development



Source: ELD



A space-themed background featuring a large, bright, cratered planet on the left side. The rest of the image is a dark, starry space filled with a dense field of small, golden-brown particles or dust, possibly representing a protoplanetary disk or a debris field. The lighting is dramatic, with a bright glow from the planet illuminating the surrounding dust.

Thank you for your attention!

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