

WHFF AMS & Sensor Survey Results

Vincent Landry

Holstein Canada, Chief Executive Officer

On behalf of:

World Holstein Friesian Federation Council Member

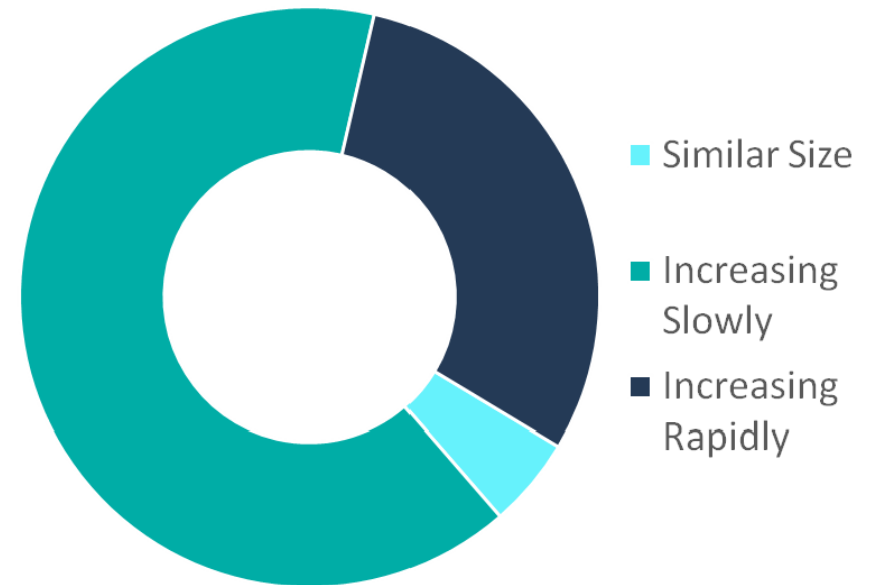
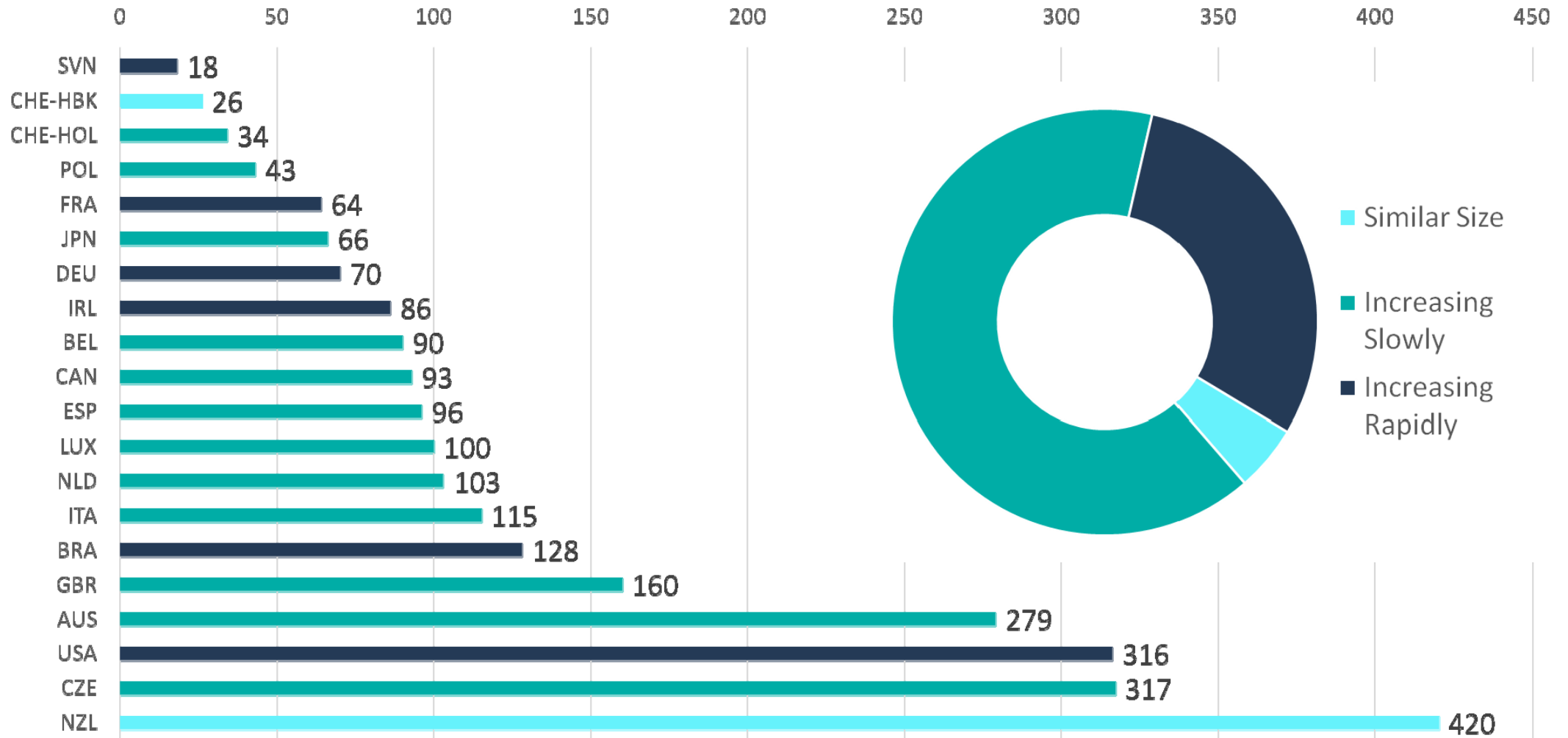




Average # Milking Cows per Farm



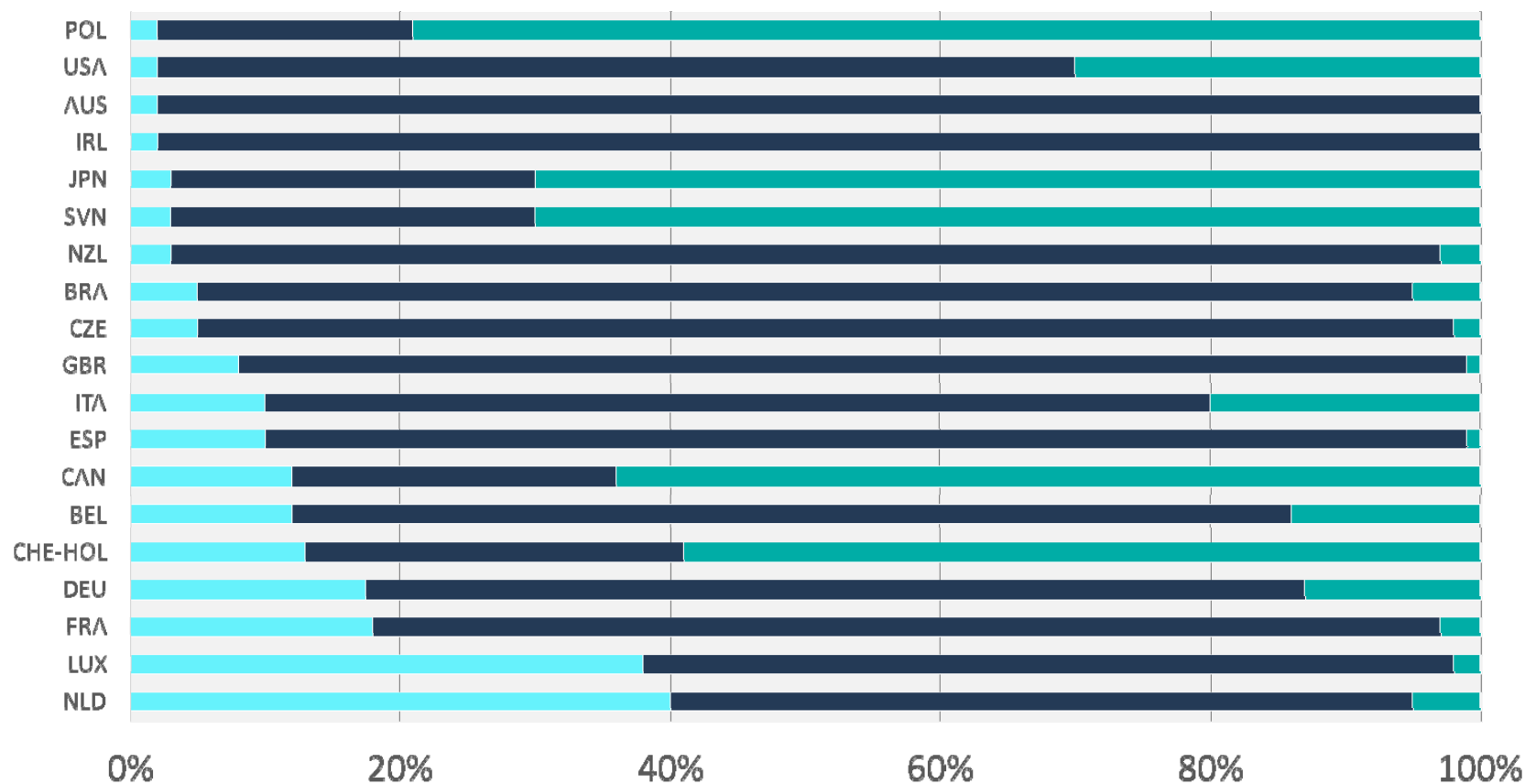
Overall Average: 131 milking cows/farm



Milking System Types by Country (% of Farms)

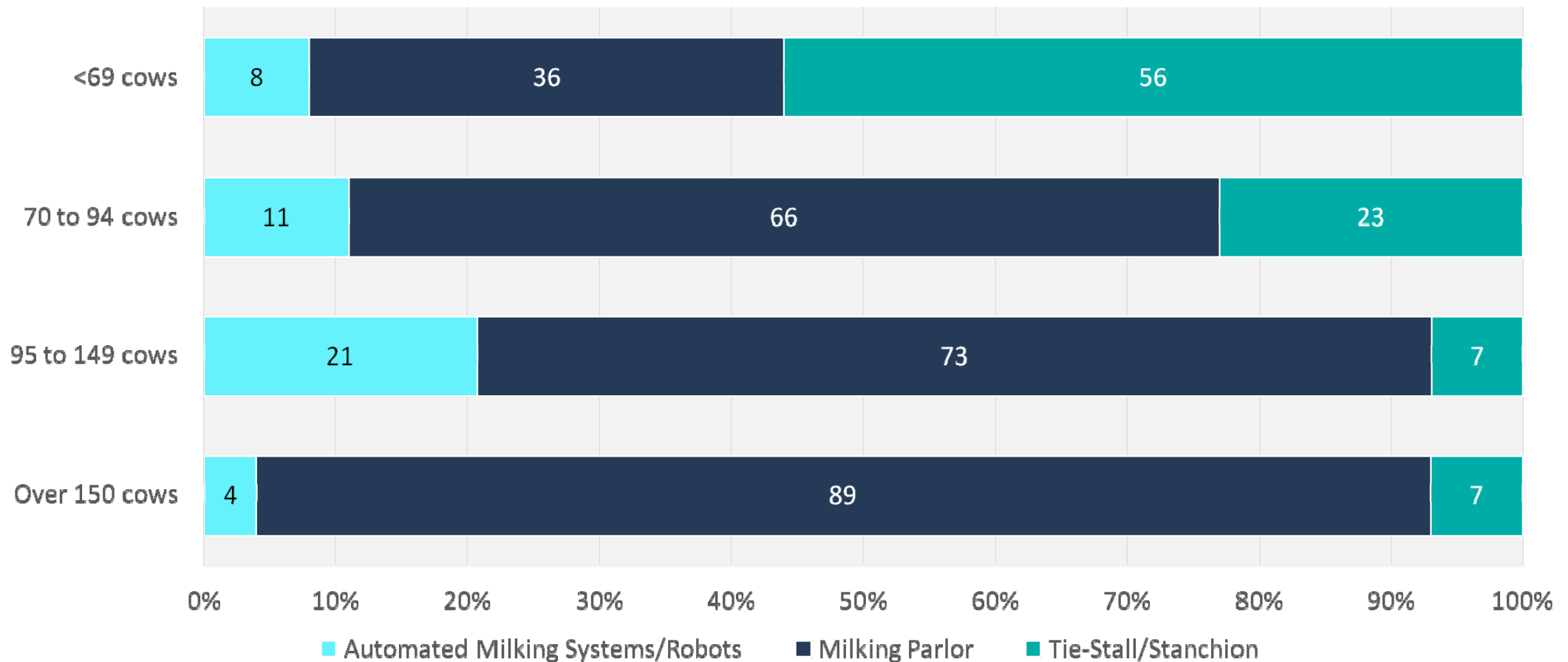


Number of cows
milked with censor
technology:
000,000

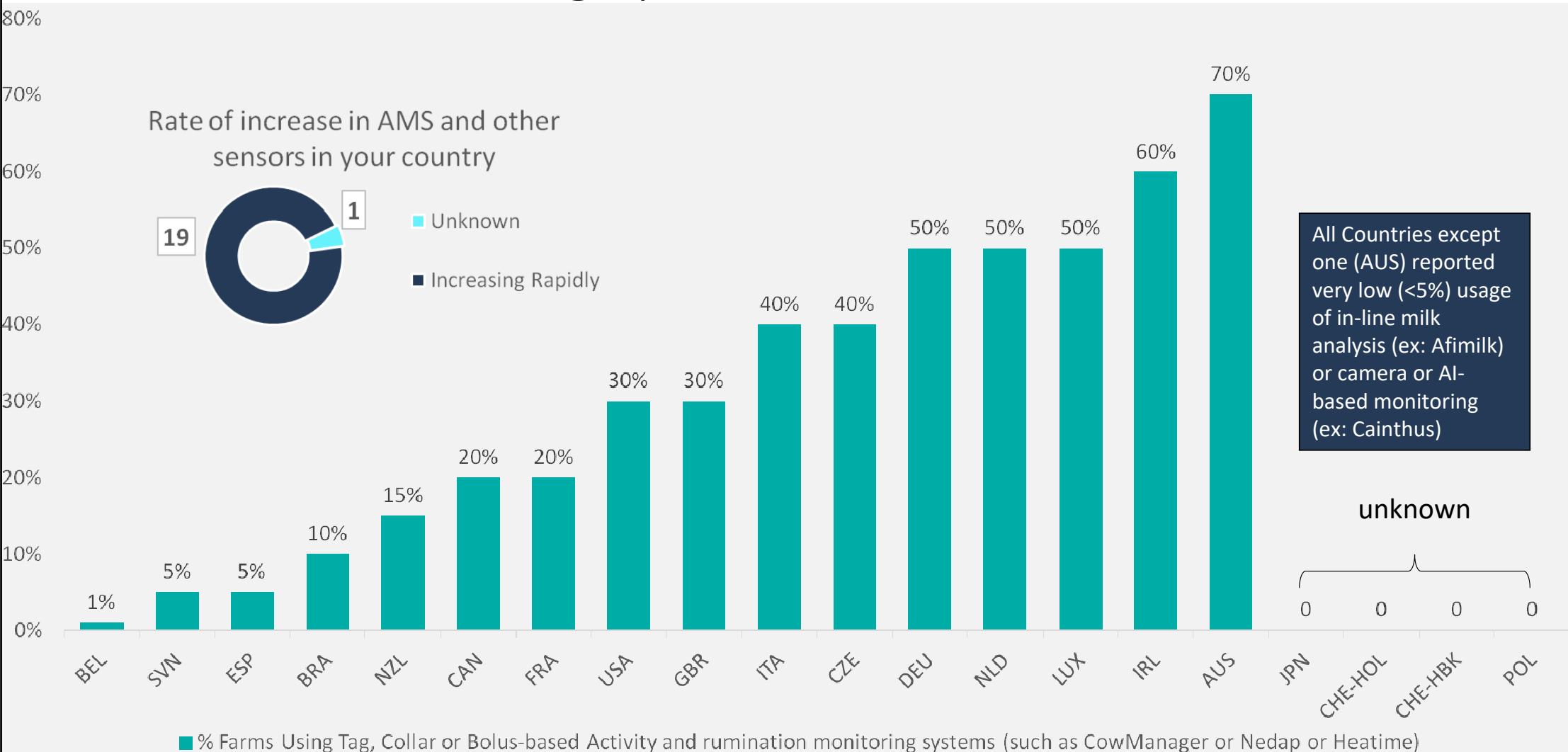


	NLD	LUX	FRA	DEU	CHE-HOL	BEL	CAN	ESP	ITA	GBR	CZE	BRA	NZL	SVN	JPN	IRL	AUS	USA	POL
Automated Milking Systems/Robots	40%	38%	18%	18%	13%	12%	12%	10%	10%	8%	5%	5%	3%	3%	3%	2%	2%	2%	2%
Milking Parlor	55%	60%	79%	70%	28%	74%	24%	89%	70%	91%	93%	90%	95%	27%	27%	98%	98%	68%	19%
Tie-Stall/Stanchion	5%	2%	3%	13%	59%	14%	64%	1%	20%	1%	2%	5%	3%	70%	70%	0%	0%	30%	79%

Milking System Types by Herd Size



% Farms Using Tag, Collar or Bolus-based Activity and Ruminant Monitoring Systems *(ex: CowManager or Nedap or Heatime)*



Other Types of Sensors Mentioned



Augmented Reality

Body Condition Score/Weight

Bolus for Animal Health

GPS Sensors

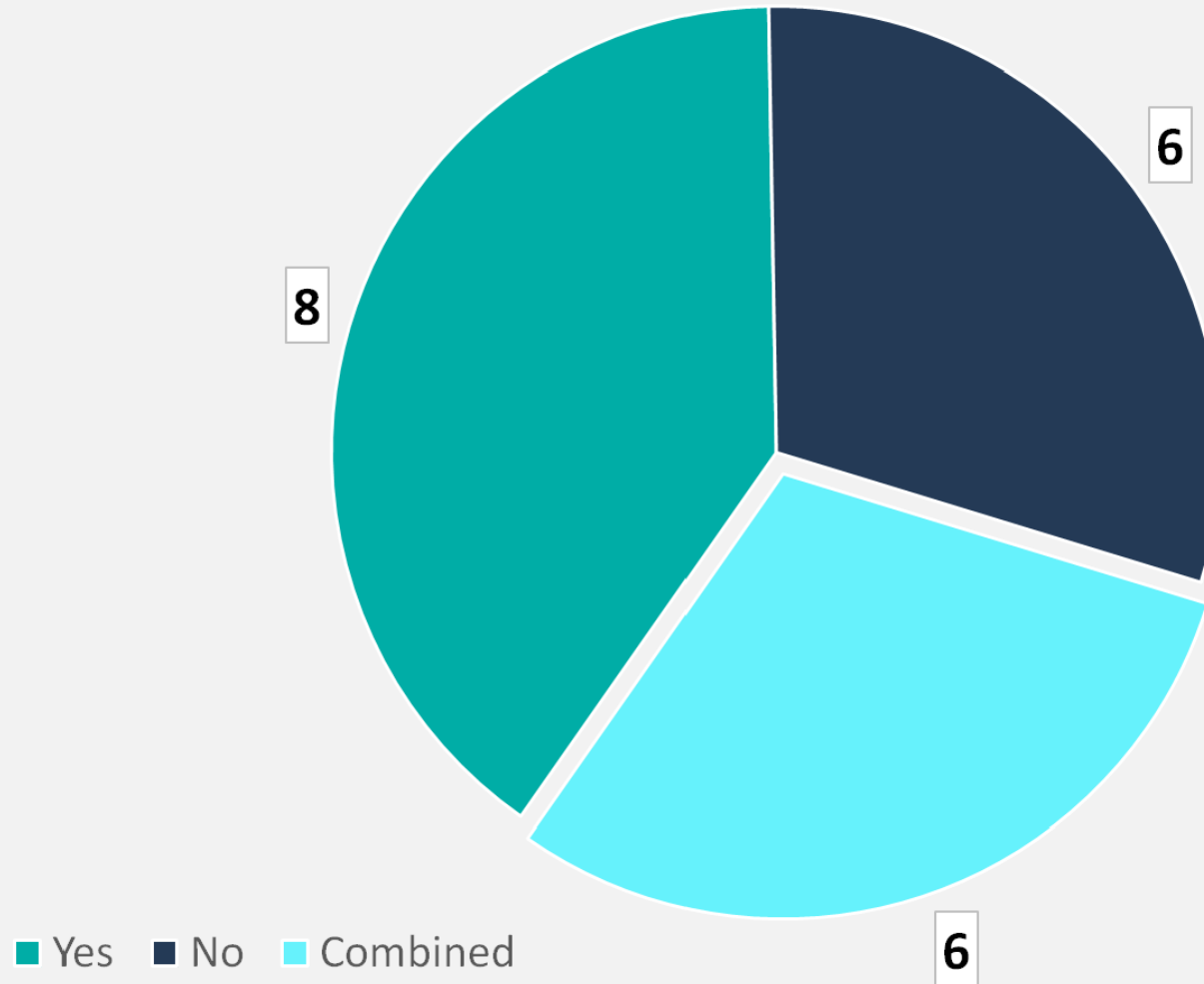
Laser Methane Detectors

Ovalert

Milk Recording & Herdbook Interaction



DHIA/Milk Recording Integrated with Herdbook?



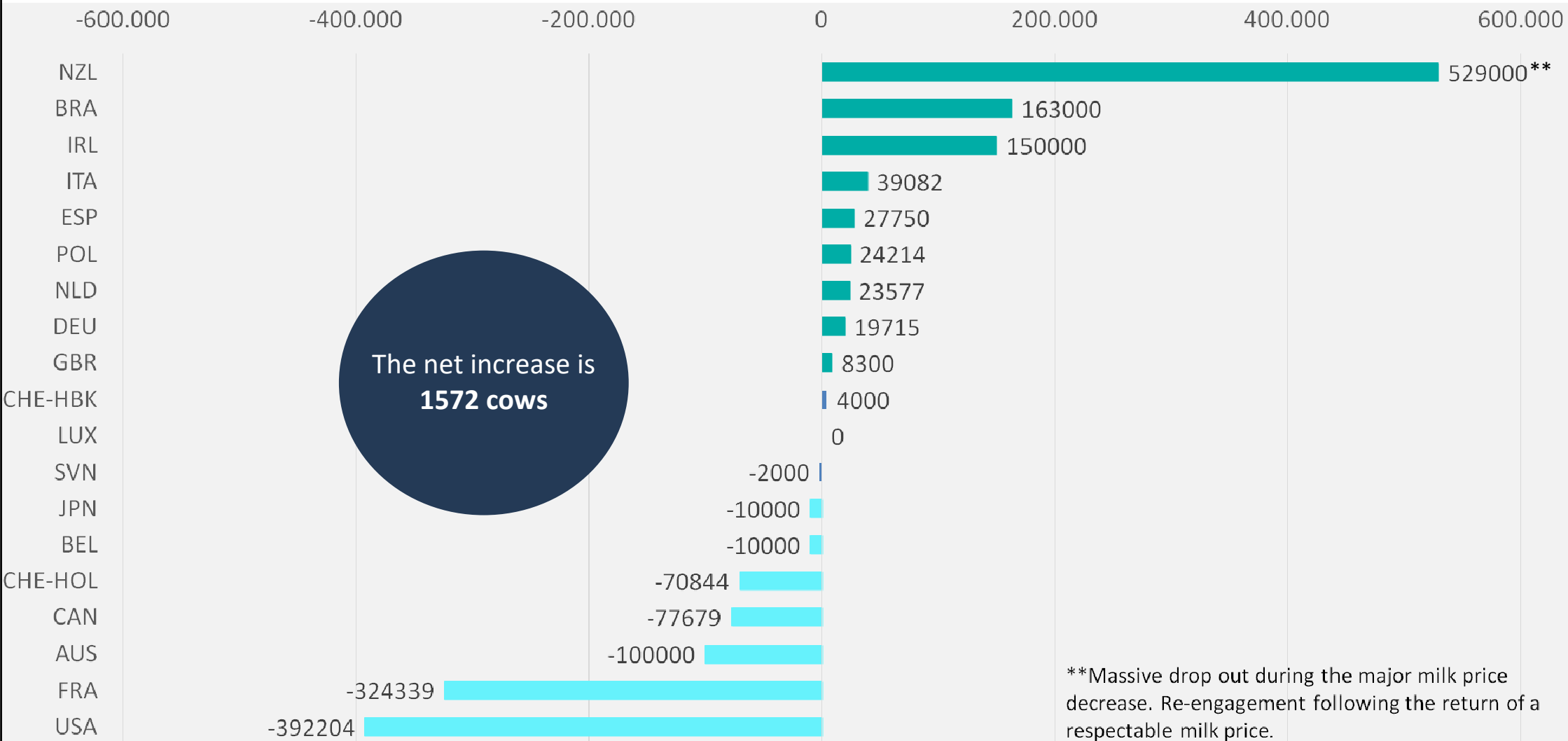
DHIA Participation Over Time (% Farms)



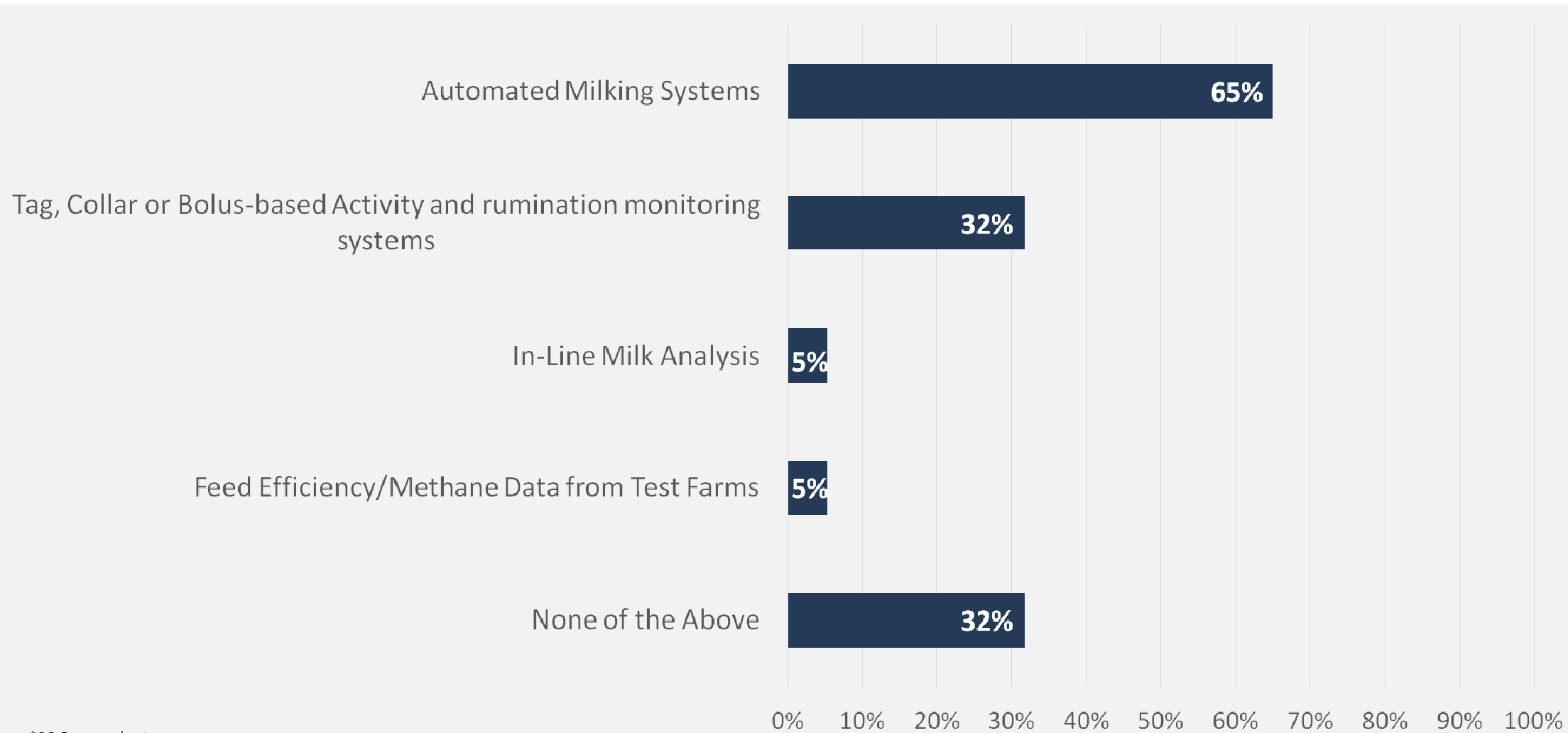
	2021 (%)	2016 (%)	Variation (%)
CAN	63,0	75,0	-12,0
USA	36,0	41,0	-5,0
AUS	40,0	45,0	-5,0
BEL	26,0	30,0	-4,0
JPN	51,0	52,0	-1,0
FRA	65,0	75,0	-1,0
DEU	68,0	68,0	0
SVN	80,0	80,0	0
CHE-HBQ	80,0	80,0	0
LUX	90,0	90,0	0
CHE-HOL	90,0	90,0	0
ITA	90,0	90,0	0
CZE	95,0	95,0	0
NLD	90,0	89,0	+1,0
GBR	72,0	70,0	+2,0
BRA	20,0	17,0	+3,0
POL	11,5	7,8	+3,7
ESP	43,0	38,0	+5,0
NZL	75,0	64,0	+11,0
IRL	60,0	45,0	+15,0

25% decrease
50% stable
25% increase

Change in DHIA Participation (# Cows) – Last 5 Years

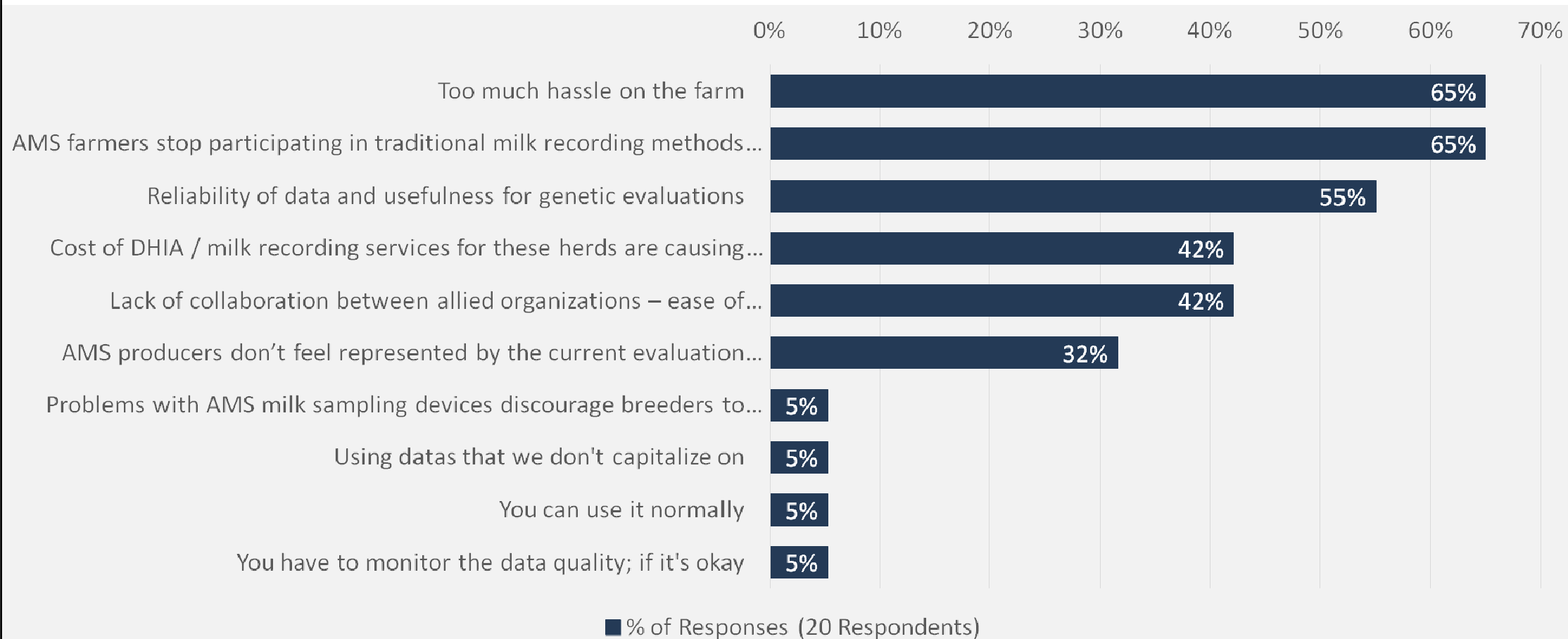


% of Responding Herdbooks Collecting & Utilizing Information from Sensors



*20 Respondents

What Challenges is your Herdbook Organization Having with Data Generated by On-farm Sensors? (TOP 3)



1. Surveyed Countries had very little knowledge about the usage of sensors (other than milking robots) on farms; most are not monitored by milk recording organizations or Herdbooks.

- a. We propose an industry effort to collect and gather information from sensor manufacturers from around the world.*
- b. We would like to maintain an active database by collecting information on an annual basis to monitor the uptake of this technology in the industry.*



2. ICAR should promote and facilitate a simple validation process for new sensors. Manufacturers need an incentive to participate in the certification process, as many farmers are not knowledgeable about ICAR certification.

- a. Establish a plan that facilitates the evaluation process and recognizes the value of daily data collection.*
- b. Meet with all current and future manufacturers within an 18-month timeframe.*



3. The time to act is NOW; level of participation in official milk recording is declining rapidly in many Countries.

Technology providers, Pharma and AI will soon be processors and producers of internal indices. They will compete directly with our lines of products and services.

- a. International partners must discuss and prepare a collaborative action plan.*
- b. We proposed a two-year timeline – one year for ICAR, WHFF and other industry partners to build a strategy, and then one year for Herdbooks to implement if they can, and want to, do so.*



Questions?

