Insights into Mastitis Management:

Unveiling the Drivers and Goals Behind Swedish Dairy Farmers and Veterinarians Decision-Making

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FORMAS

Goals are the core intention of an activity or plan

The idea of the future we want to reach

Mental Maps:

What drives farmers and veterinarians when they make up their mind of which preventive measures to use?

Picture: AI generated using iStock

Laddering Technique

”Why is that important to you”?

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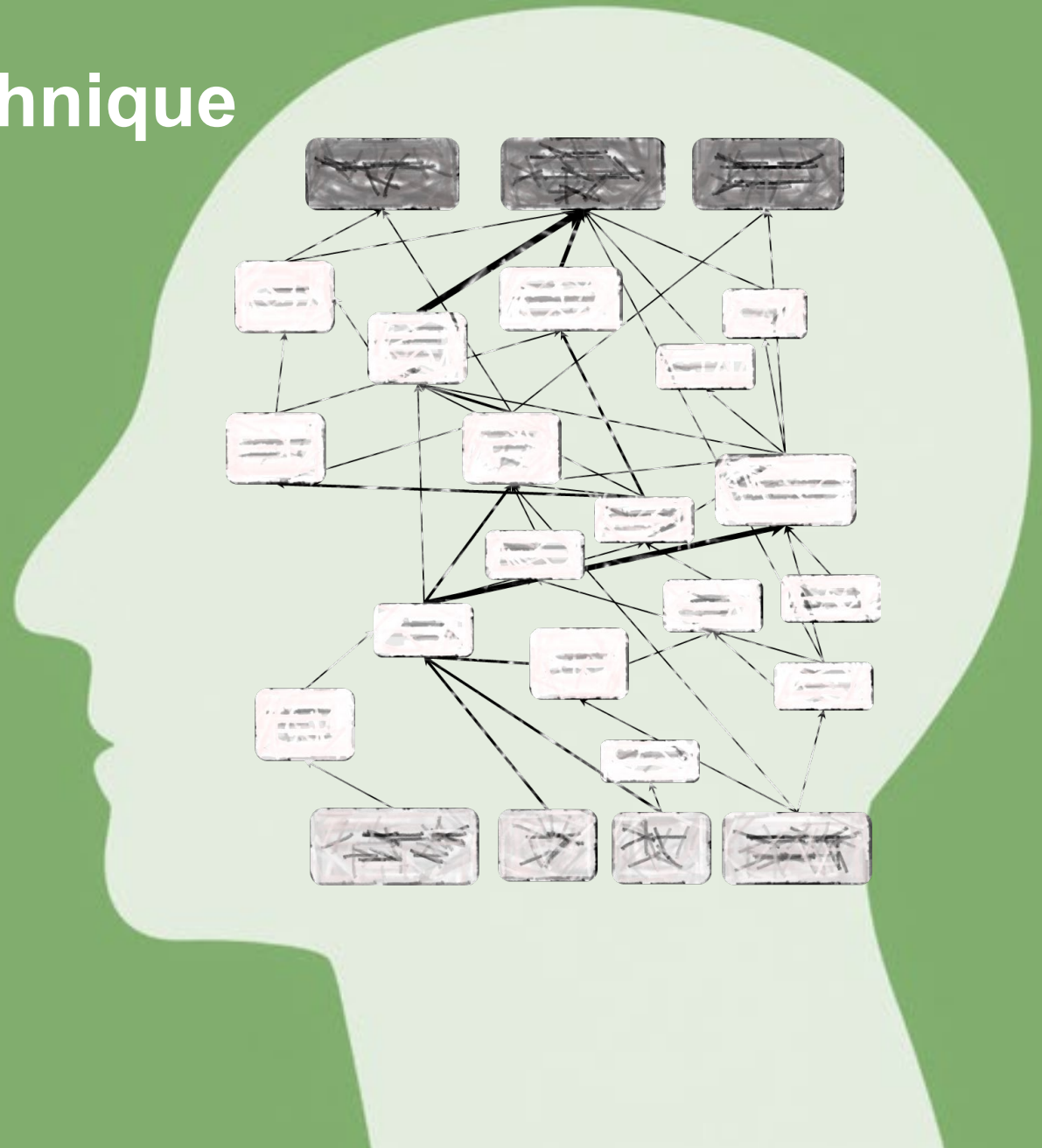

Means-End chain

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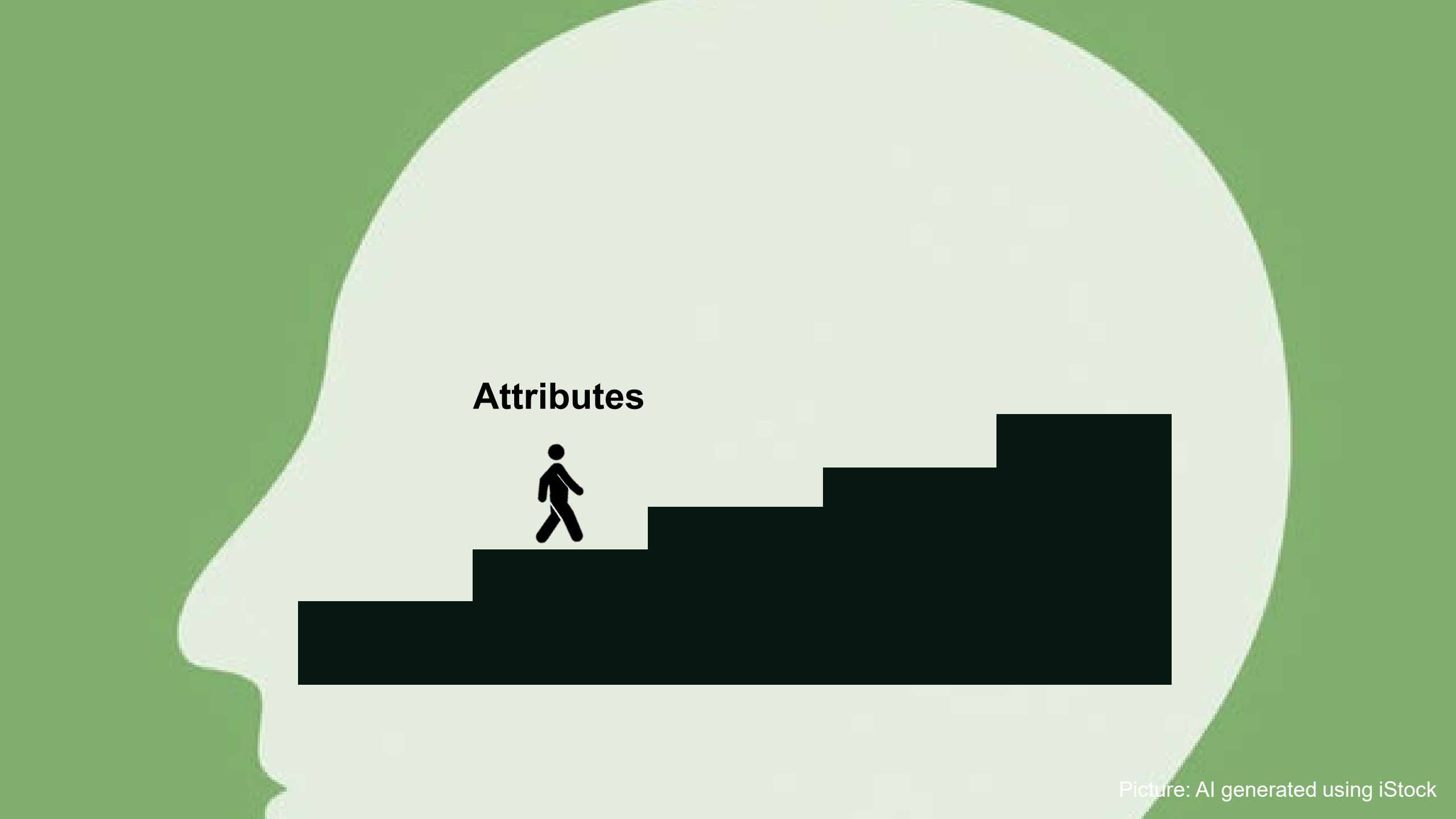

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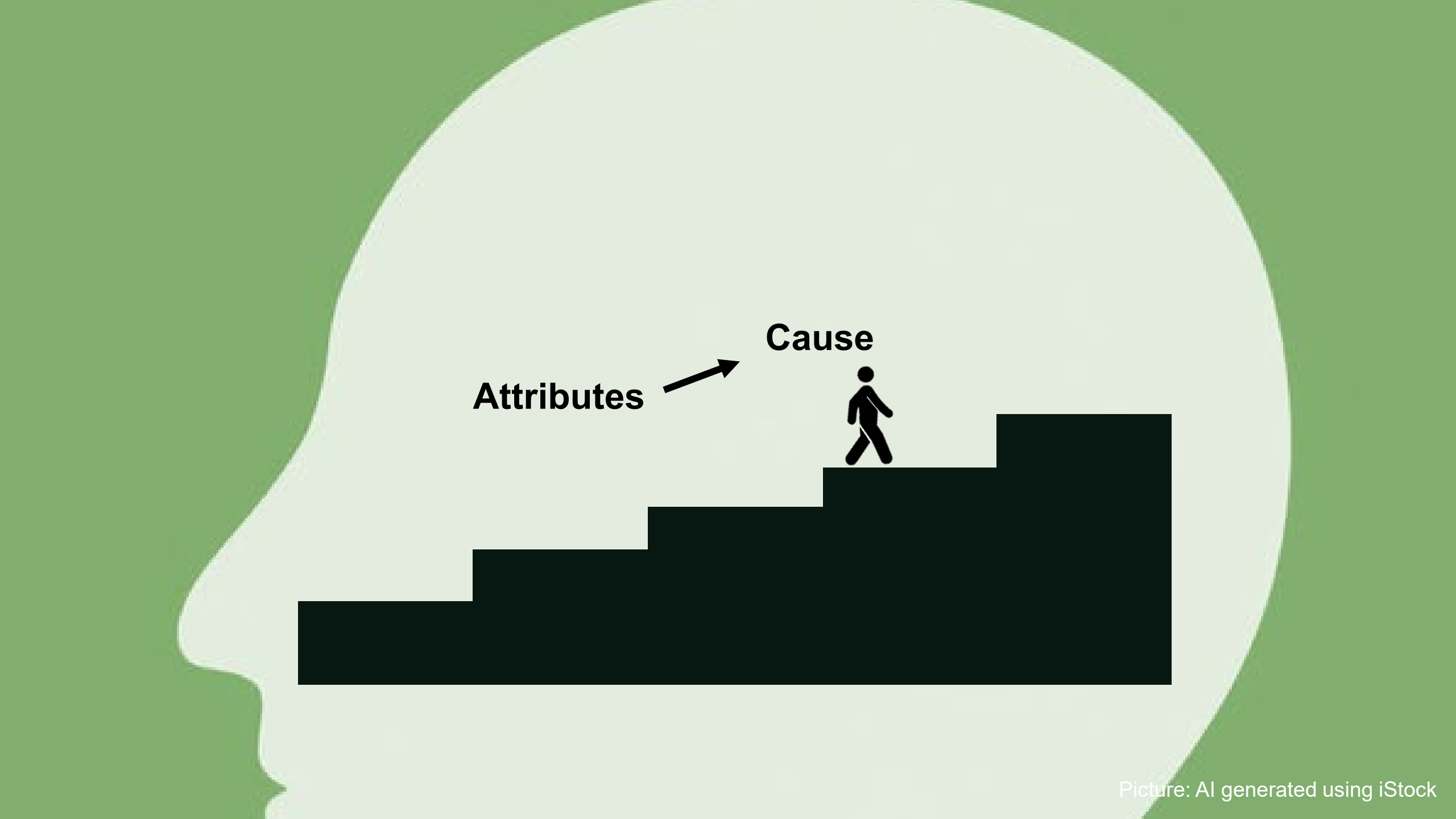

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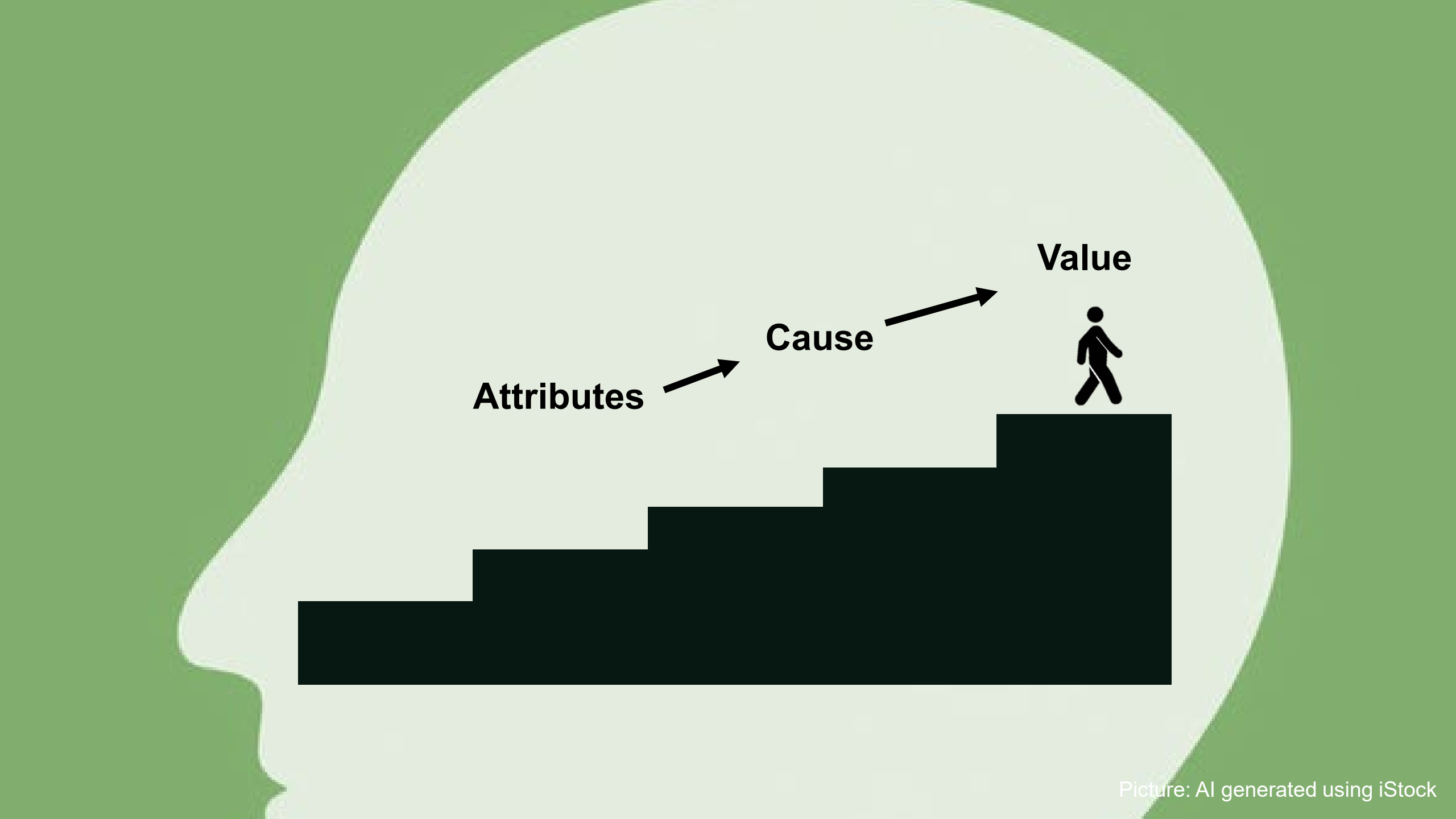

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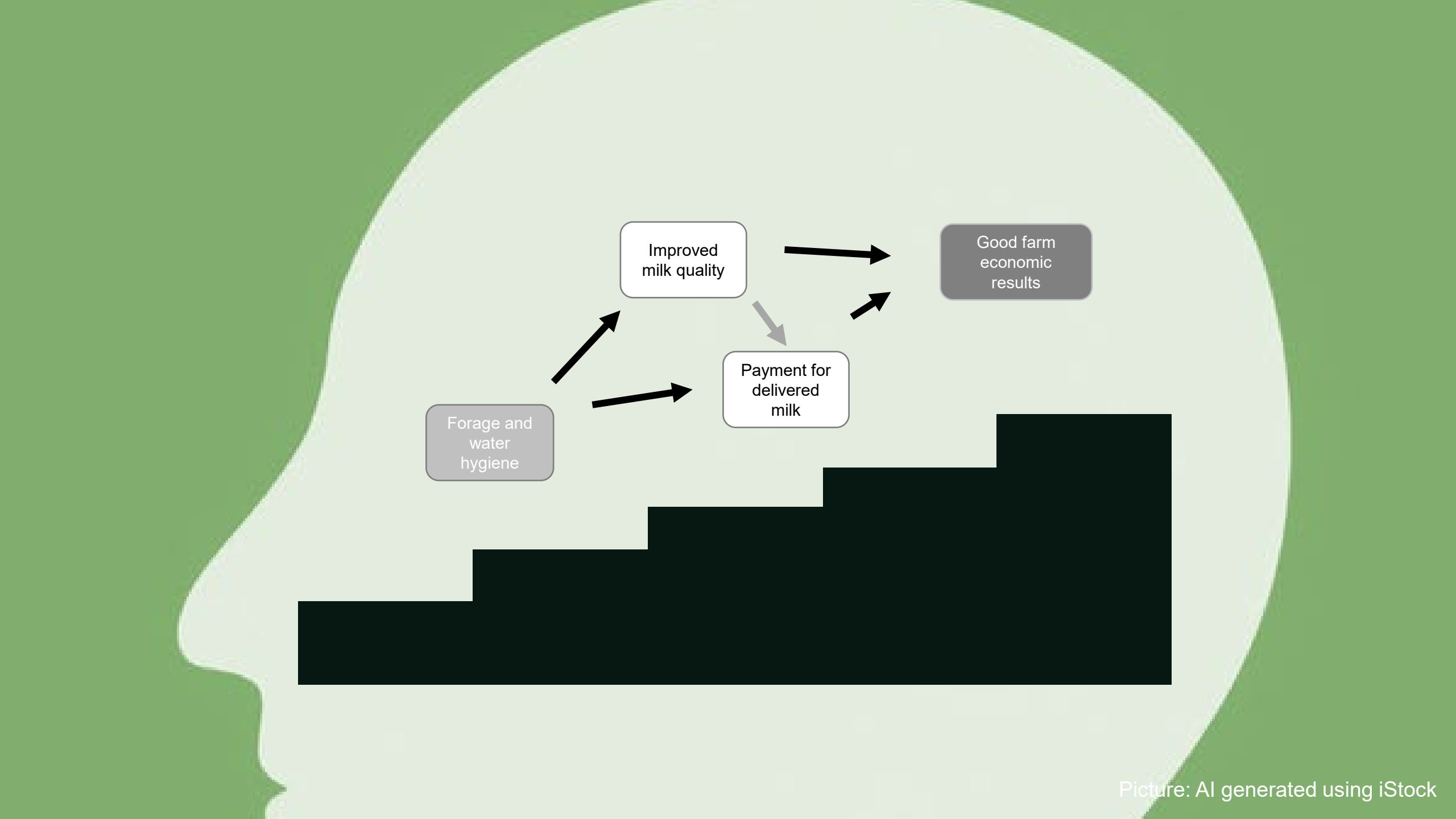

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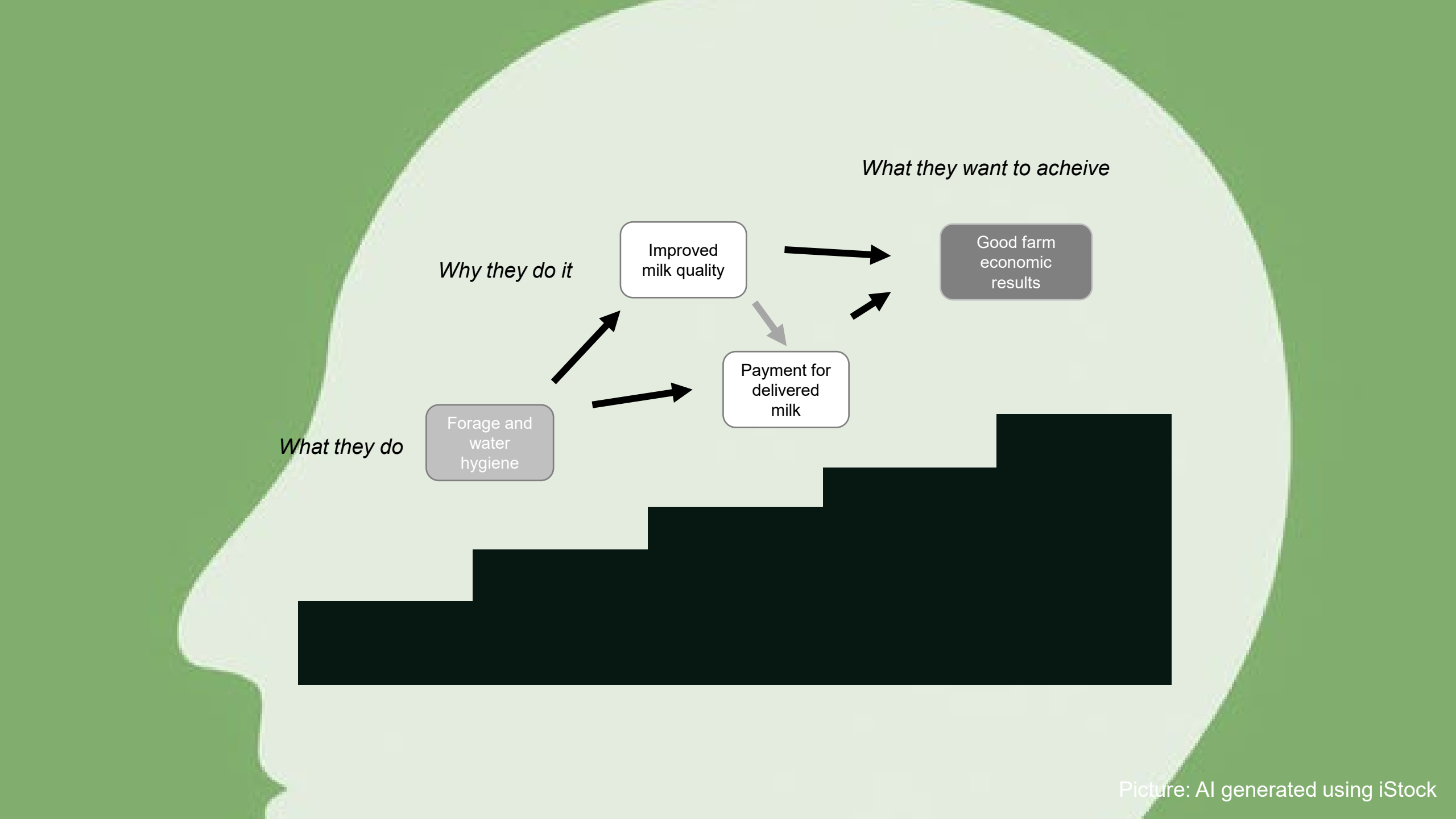

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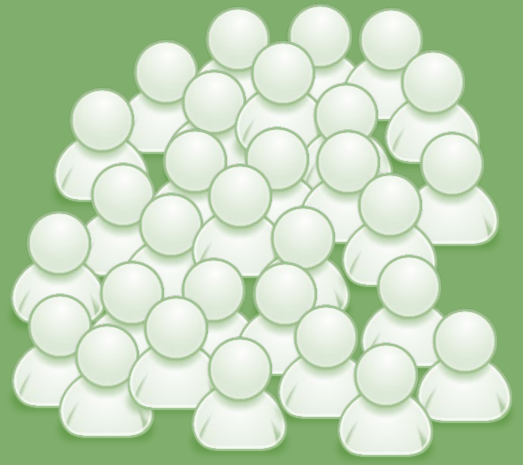
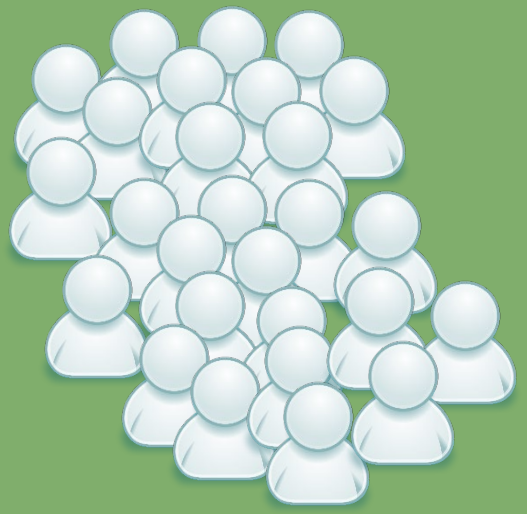
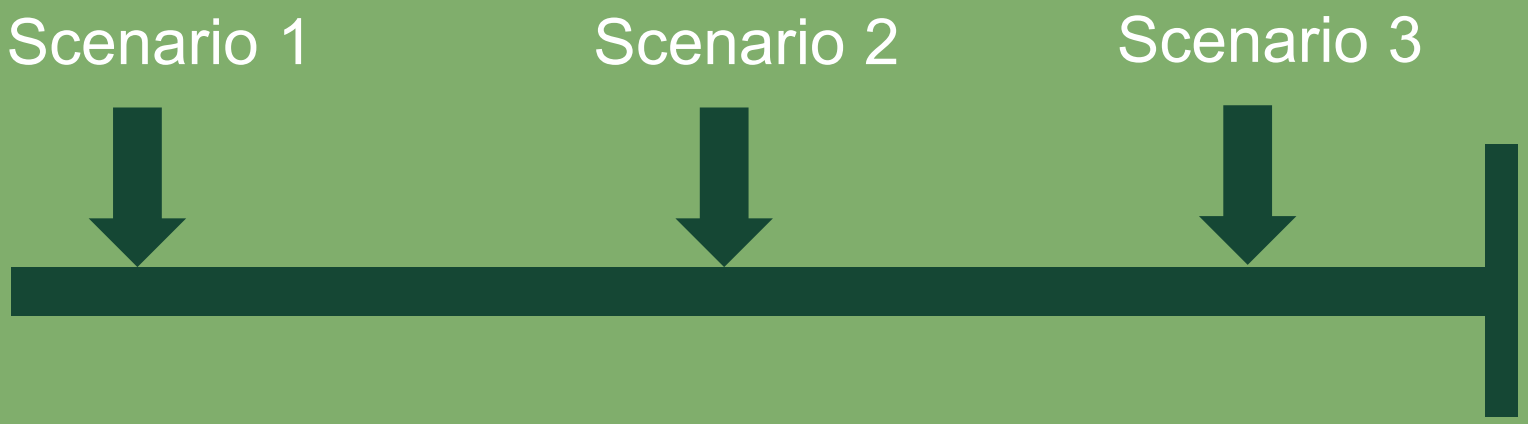


30 Swedish dairy farmers



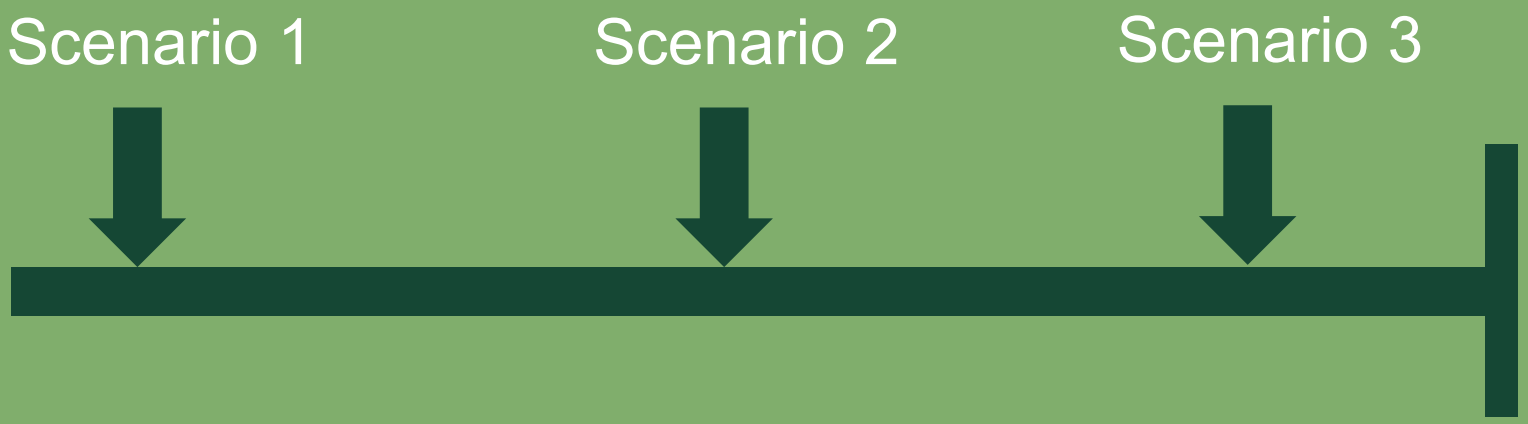
27 cattle veterinarians



Scenario 1

BMSCC **increased** to a level that you find unacceptably high

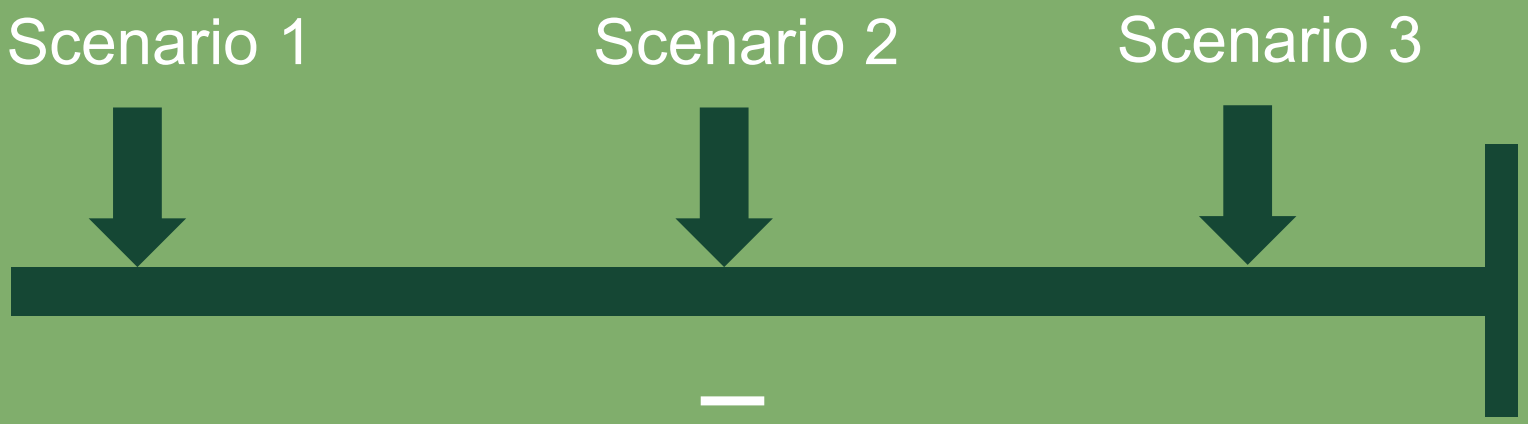
What measures would you implement/recommend?



Scenario 2

Despite (your) efforts the BMSCC **remain** at level that you find unacceptably high

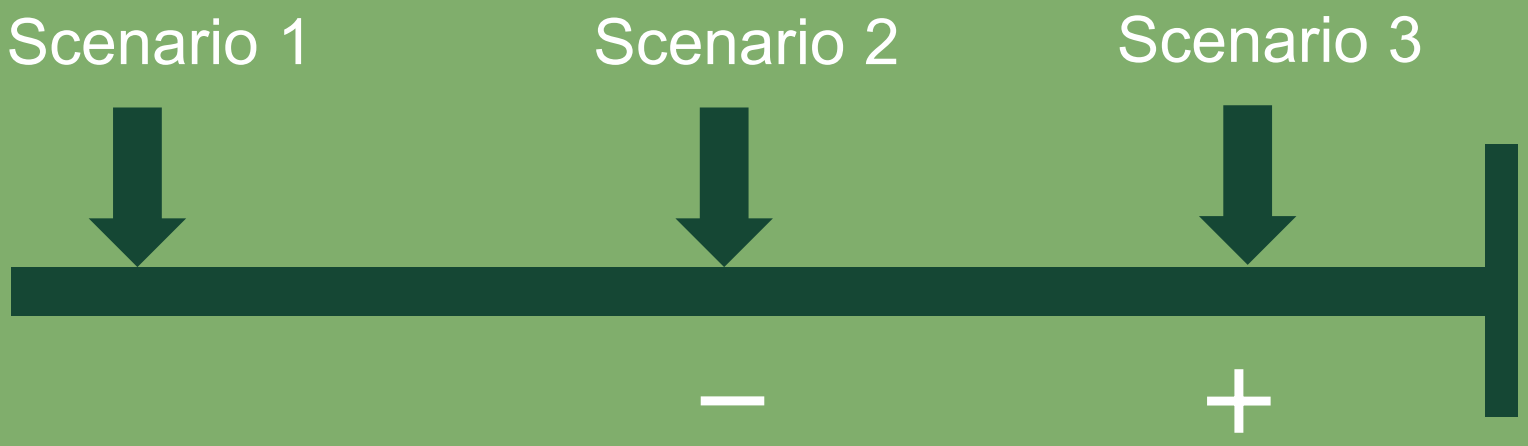
Which further measures would you implement/recommend?



Scenario 3

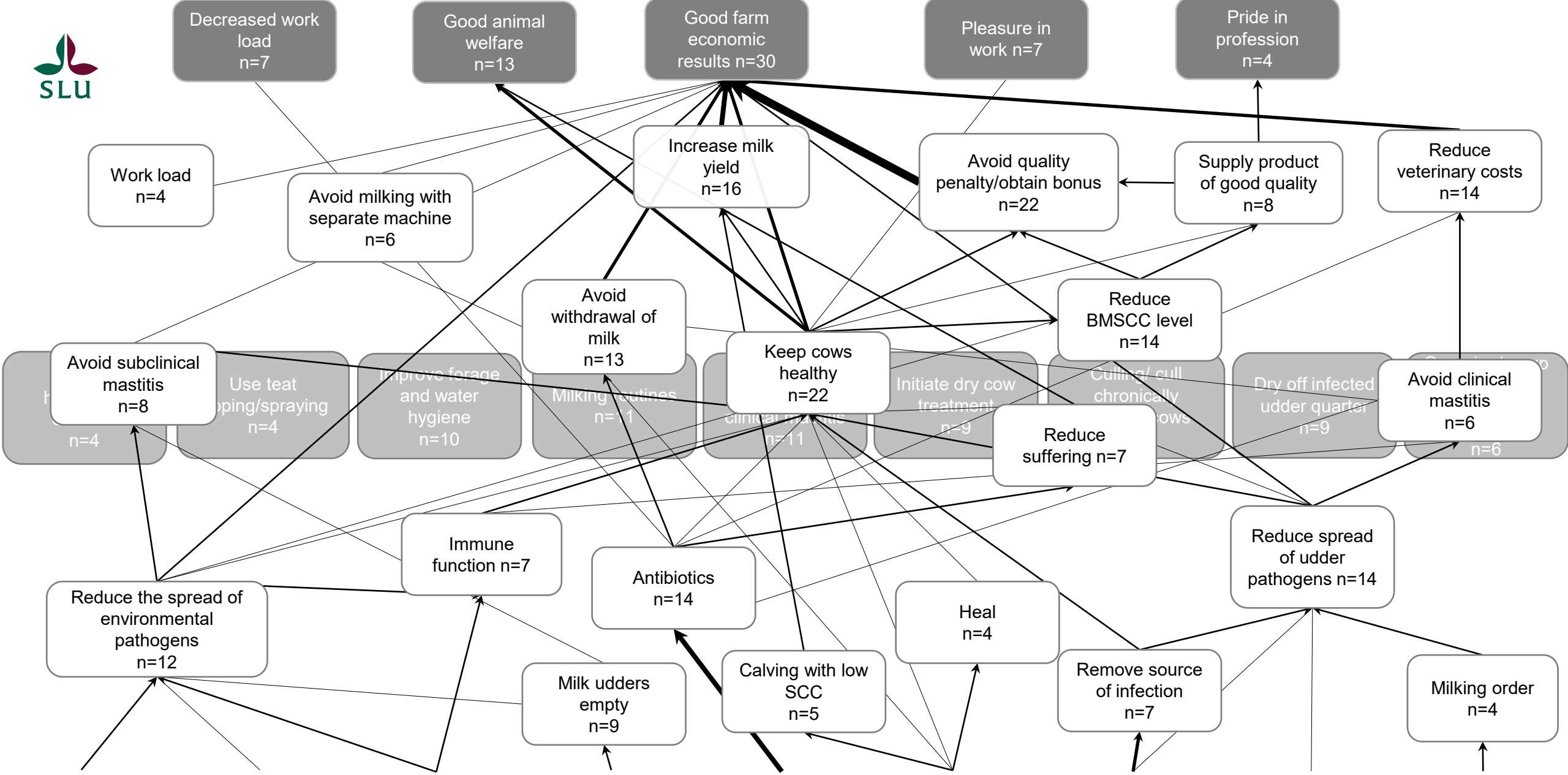
You have now **observed a reduction** in BMSCC from the previously unacceptable level.

At this point, which further measures will you add or withdraw/stop implementing?



Scenario 1 - Farmers

Picture: AI generated using iStock


Decreased work load n=7
Good animal welfare n=13
Good farm economic results n=30
Pleasure in work n=7
Pride in profession n=4
Work load n=4
Avoid milking with separate machine n=6
Increase milk yield n=16
Avoid quality penalty/obtain bonus n=22
Supply product of good quality n=8
Reduce veterinary costs n=14
Avoid withdrawal of milk n=13
Reduce BMSCC level n=14
Avoid subclinical mastitis n=8
Keep cows healthy n=22
Use teat pping/spraying n=4
Improve forage and water hygiene n=10
Initiate dry cow treatment n=9
Dry off infected udder quarter n=9
Avoid clinical mastitis n=6
Reduce suffering n=7
Immune function n=7
Reduce spread of udder pathogens n=14
Antibiotics n=14
Reduce the spread of environmental pathogens n=12
Heal n=4
Milk udders empty n=9
Calving with low SCC n=5
Remove source of infection n=7
Milking order n=4

Scenario 1 - veterinarians

Picture: AI generated using iStock

Improve hygiene in cubicles n=4

Use teat dipping/spraying n=4

Improve forage and water hygiene n=10

Milking routines n=11

Initiate treatment of clinical mastitis n=11

Initiate dry cow treatment n=9

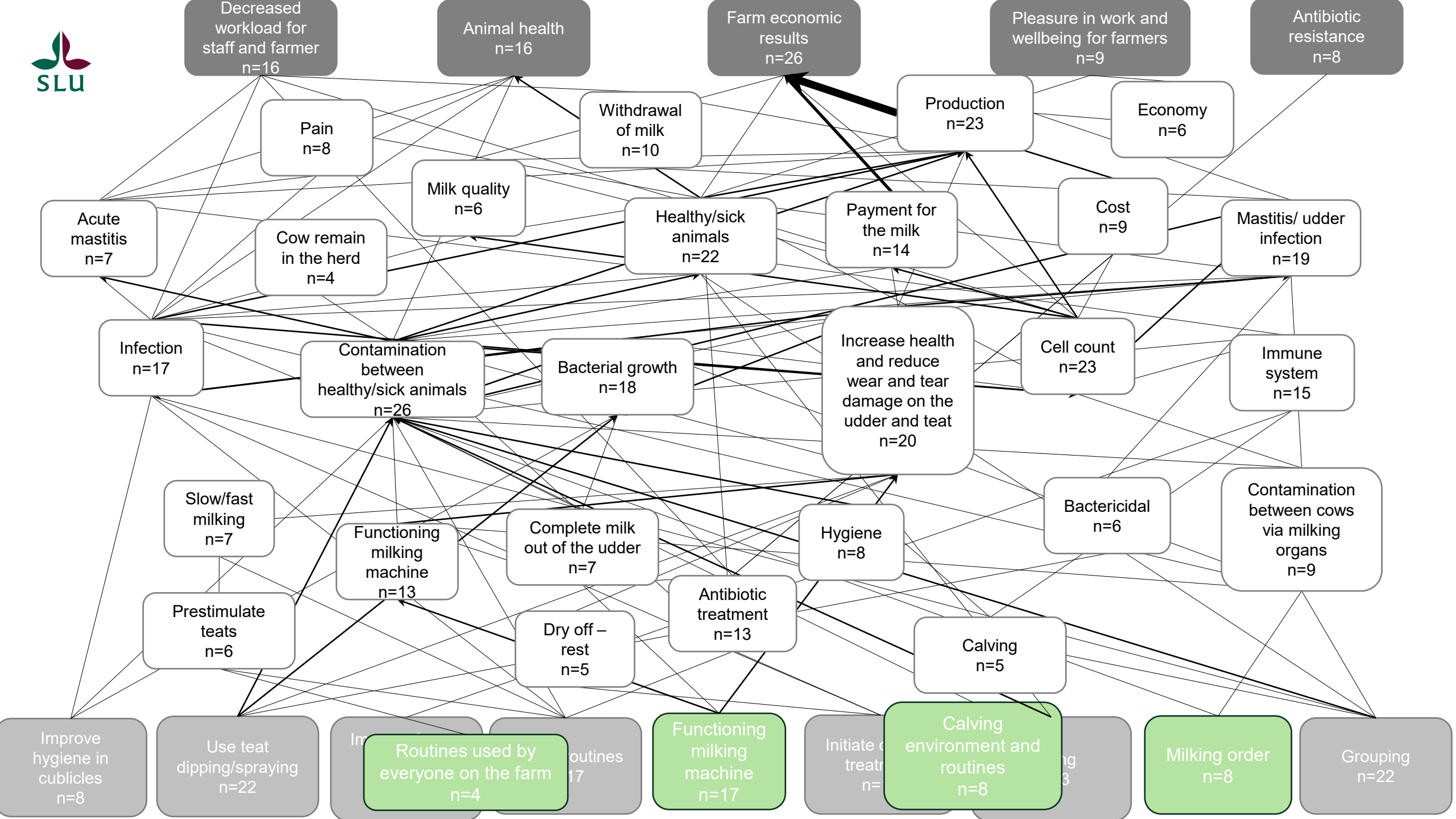
Culling/ cull chronically infected cows n=13

Dry off infected udder quarter n=9

Grouping/group according to udder health status n=6

Initiate treatment of clinical mastitis n=11

Dry off infected udder quarter n=9

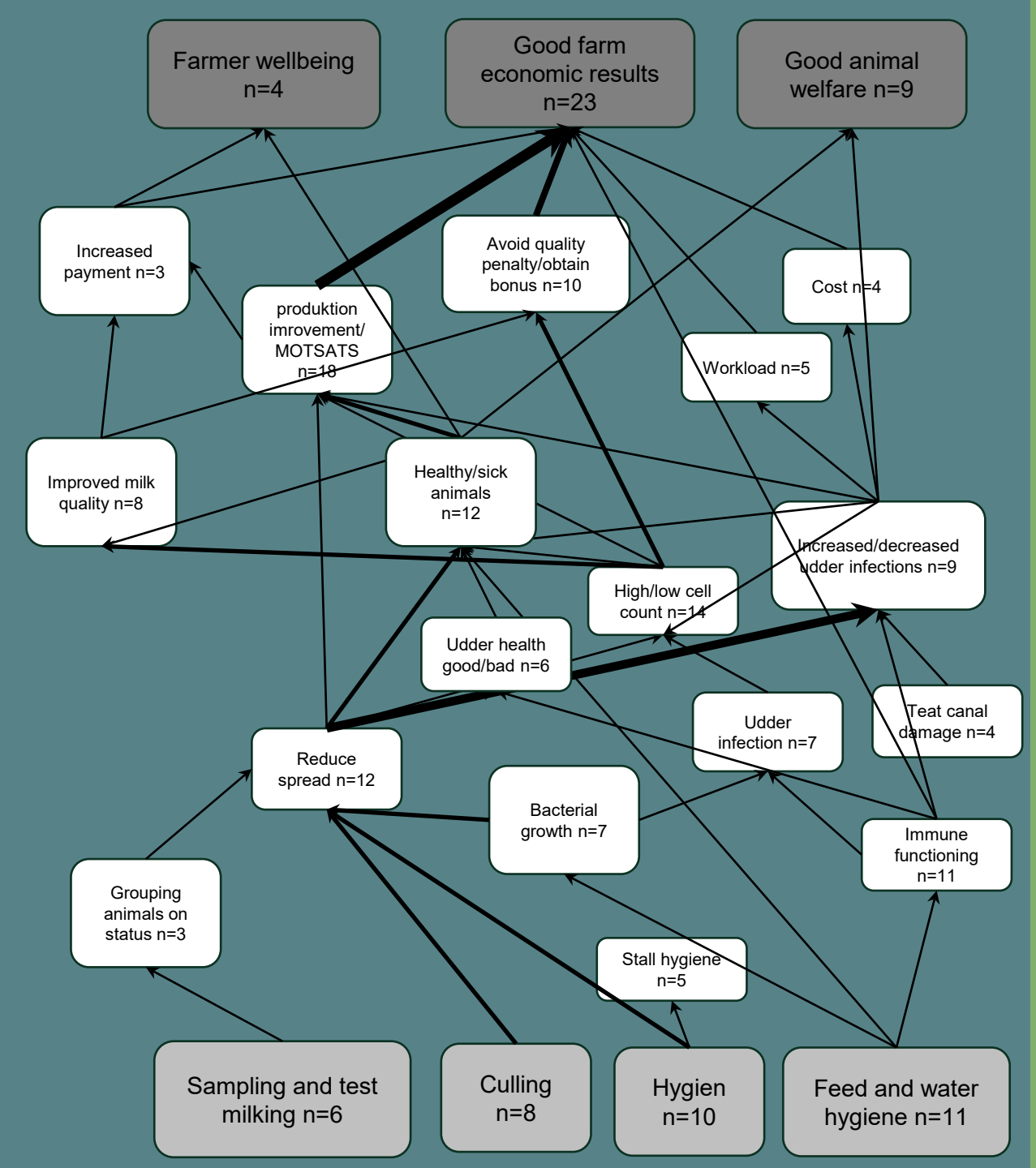

Decreased workload for staff and farmer n=16
Animal health n=16
Farm economic results n=26
Pleasure in work and wellbeing for farmers n=9
Antibiotic resistance n=8
Pain n=8
Withdrawal of milk n=10
Production n=23
Economy n=6
Milk quality n=6
Acute mastitis n=7
Cow remain in the herd n=4
Healthy/sick animals n=22
Payment for the milk n=14
Cost n=9
Mastitis/ udder infection n=19
Infection n=17
Contamination between healthy/sick animals n=26
Bacterial growth n=18
Increase health and reduce wear and tear damage on the udder and teat n=20
Cell count n=23
Immune system n=15
Slow/fast milking n=7
Functioning milking machine n=13
Complete milk out of the udder n=7
Hygiene n=8
Bactericidal n=6
Contamination between cows via milking organs n=9
Prestimulate teats n=6
Dry off – rest n=5
Antibiotic treatment n=13
Calving n=5
Improve hygiene in cublicles n=8
Use teat dipping/spraying n=22
Routines used by everyone on the farm n=4
Functioning milking machine n=17
Calving environment and routines n=8
Milking order n=8
Grouping n=22

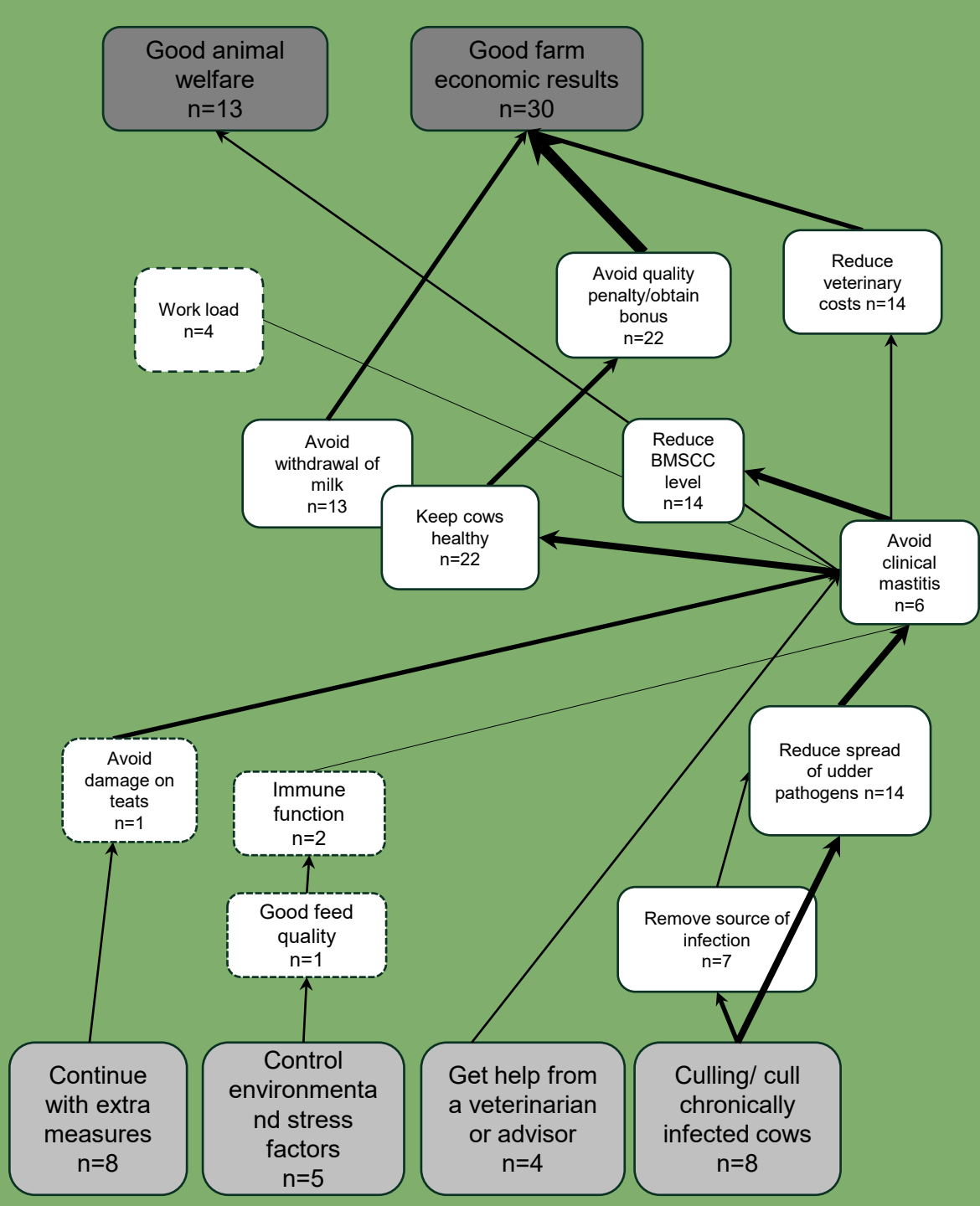
What happens when we use negative and positive feedback?

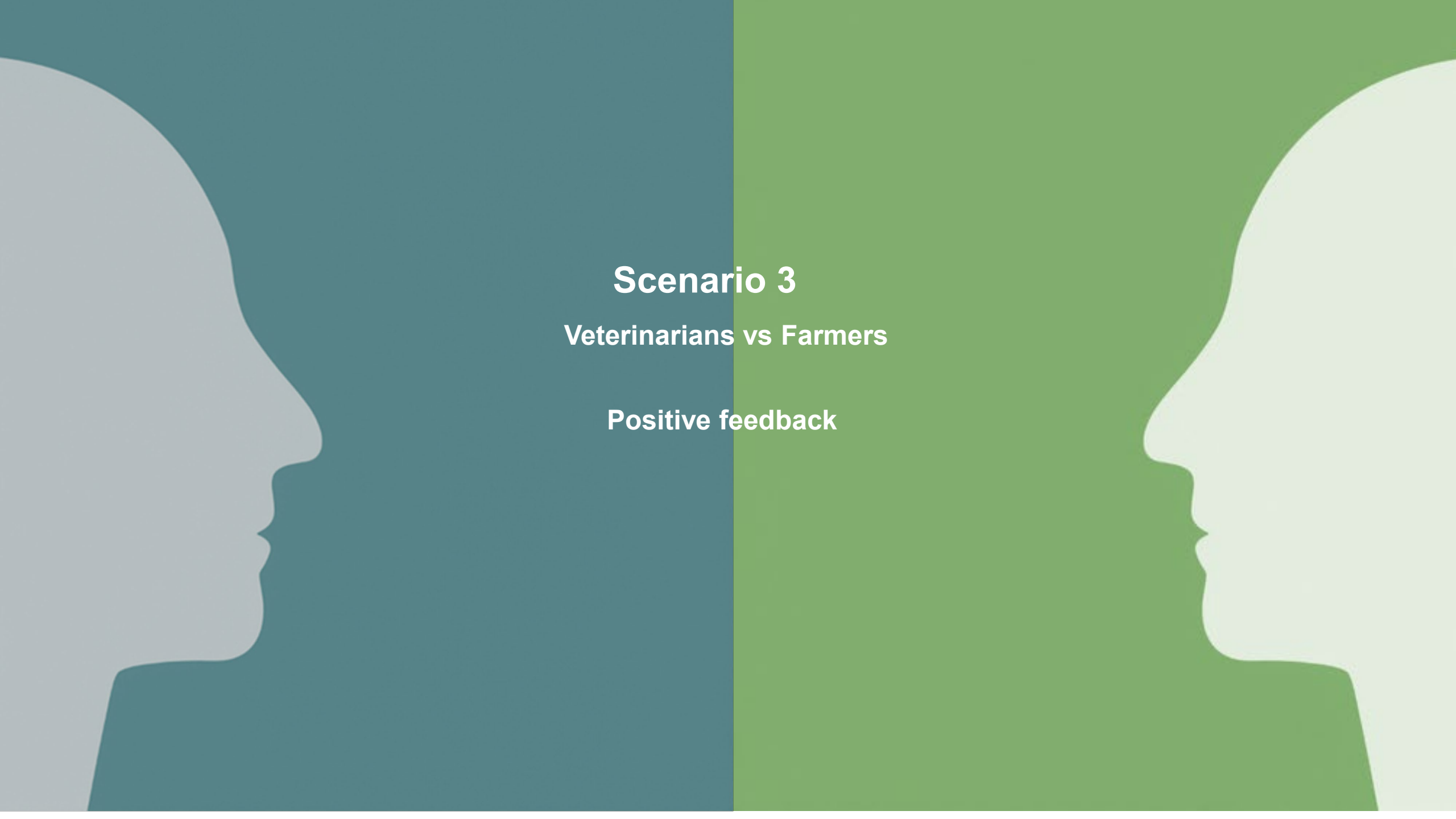
Scenario 2

Veterinarians vs Farmers

Negative feedback


Farmer wellbeing n=4
Good farm economic results n=23
Good animal welfare n=9
Increased payment n=3
Avoid quality penalty/obtain bonus n=10
Cost n=4
produktion imrovement/ MOTSATS n=18
Workload n=5
Improved milk quality n=8
Healthy/sick animals n=12
Increased/decreased udder infections n=9
High/low cell count n=14
Udder health good/bad n=6
Udder infection n=7
Teat canal damage n=4
Reduce spread n=12
Bacterial growth n=7
Immune functioning n=11
Grouping animals on status n=3
Stall hygiene n=5
Sampling and test milking n=6
Culling n=8
Hygien n=10
Feed and water hygiene n=11

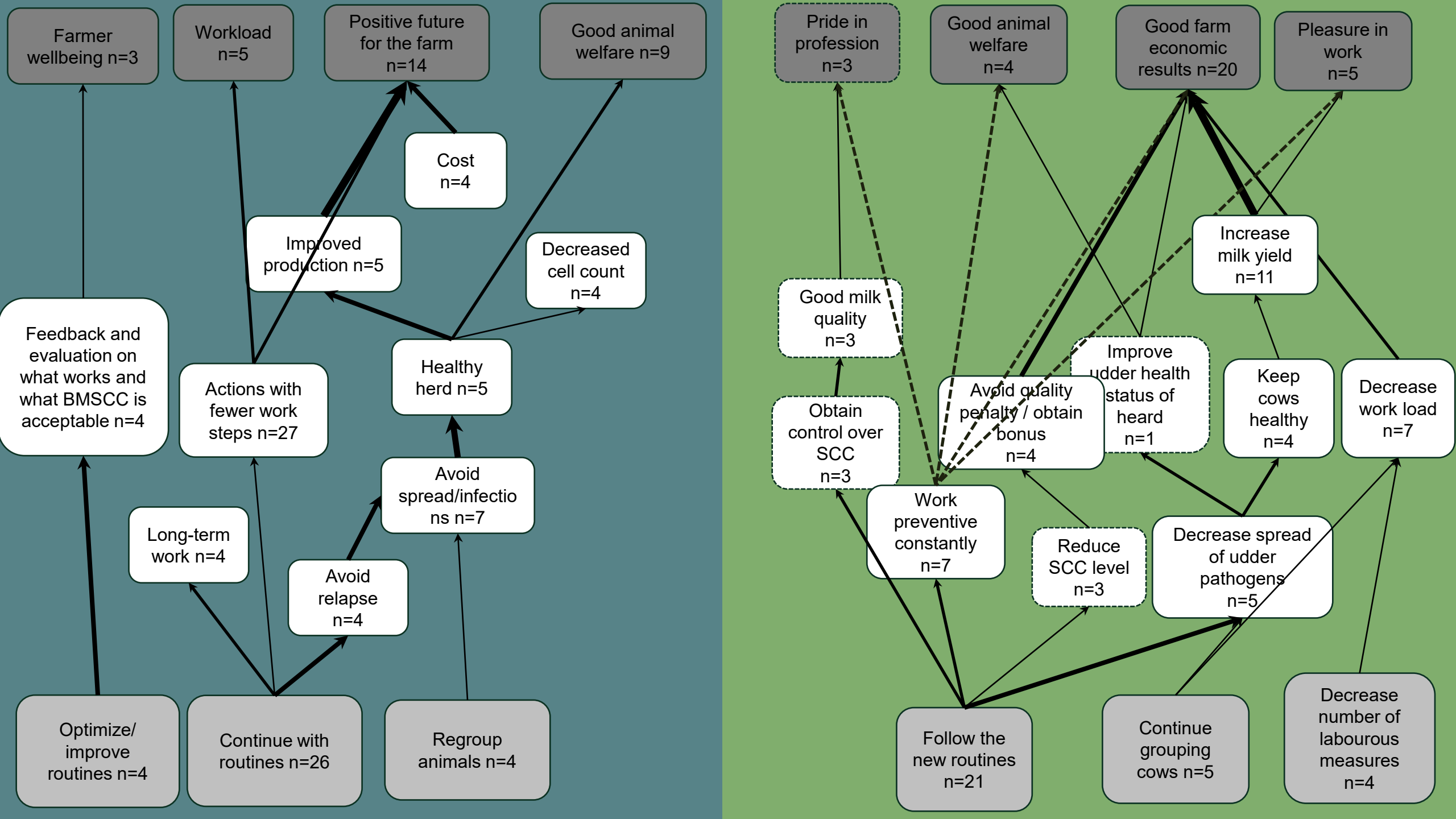

Good animal welfare n=13
Good farm economic results n=30
Work load n=4
Avoid quality penalty/obtain bonus n=22
Reduce veterinary costs n=14
Avoid withdrawal of milk n=13
Reduce BMSCC level n=14
Keep cows healthy n=22
Avoid clinical mastitis n=6
Avoid damage on teats n=1
Immune function n=2
Reduce spread of udder pathogens n=14
Good feed quality n=1
Remove source of infection n=7
Continue with extra measures n=8
Control environmenta nd stress factors n=5
Get help from a veterinarian or advisor n=4
Culling/ cull chronically infected cows n=8

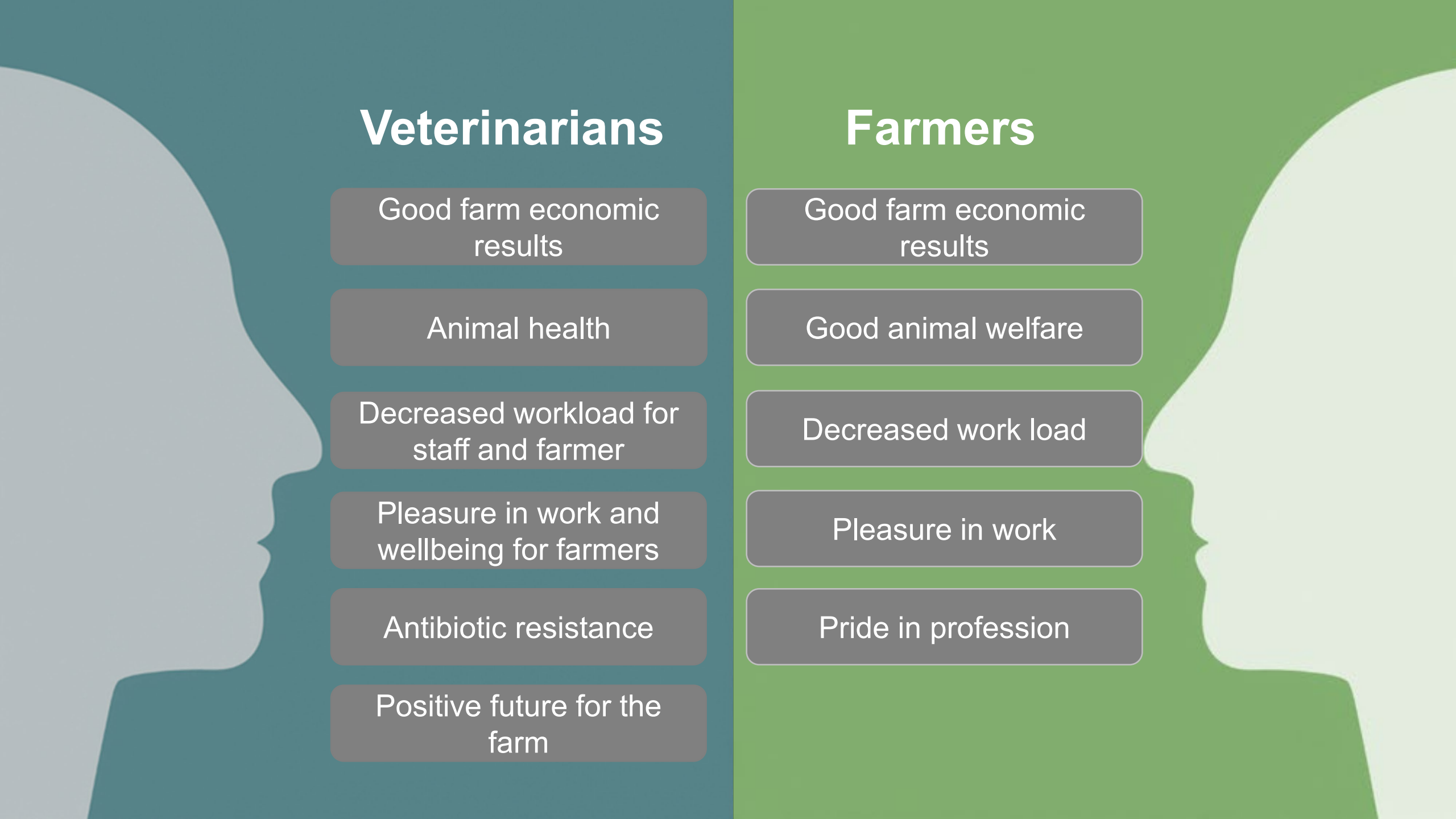


Scenario 3

Veterinarians vs Farmers

Positive feedback


Farmer wellbeing n=3
Workload n=5
Positive future for the farm n=14
Good animal welfare n=9
Cost n=4
Improved production n=5
Decreased cell count n=4
Feedback and evaluation on what works and what BMSCC is acceptable n=4
Actions with fewer work steps n=27
Healthy herd n=5
Avoid spread/infectio ns n=7
Long-term work n=4
Avoid relapse n=4
Optimize/ improve routines n=4
Continue with routines n=26
Regroup animals n=4
Pride in profession n=3
Good animal welfare n=4
Good farm economic results n=20
Pleasure in work n=5
Increase milk yield n=11
Good milk quality n=3
Improve udder health status of heard n=1
Keep cows healthy n=4
Decrease work load n=7
Obtain control over SCC n=3
Avoid quality penalty / obtain bonus n=4
Work preventive constantly n=7
Reduce SCC level n=3
Decrease spread of udder pathogens n=5
Follow the new routines n=21
Continue grouping cows n=5
Decrease number of labourous measures n=4


Veterinarians
Good farm economic results
Animal health
Decreased workload for staff and farmer
Pleasure in work and wellbeing for farmers
Antibiotic resistance
Positive future for the farm
Farmers
Good farm economic results
Good animal welfare
Decreased work load
Pleasure in work
Pride in profession

Farmers and veterinairans have similar goals and drivers

Farm economic situation and animal health and welfare


Picture: AI generated using iStock

”Why are they not following the recommentaions?”

Complexities matters!

The path from what they do to why they do it” differs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