

Nudging

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SEGES



To make people change behaviour by small adjustments

Nudging

- It is often very visible that people are trying to make you behave in a specific way
- Very intuitive that that somebody tries to make you do a specific thing

Manipulation

- You are not always aware of that people are trying to behave differently
- It is not always intuitive what people are trying to make you do (not sympatic)

Nudging - a little push in the right direction (in the direction you "deep down" actually want to go)



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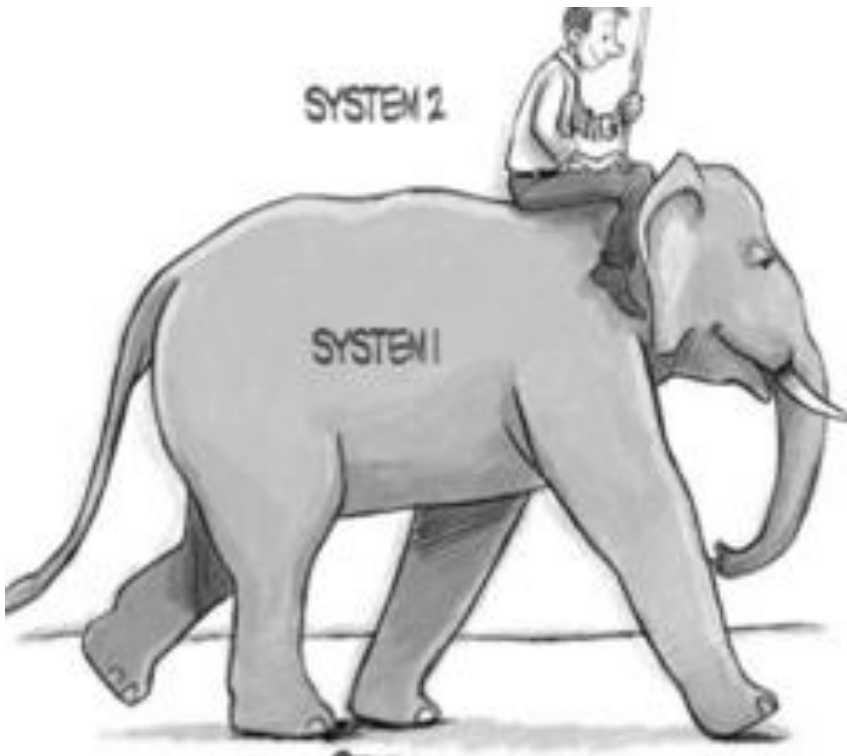


Cognitiv dissonance

- Many years we worked with trying to change attitude, change culture and we agree on that it is a long journey
- Nudging is the other way around – make people change behaviour then we will afterward find an explanation why we behave as we do now.

We like things to make sense - we dont like to do one thing and believe in something else that confuses us - cognitiv dissonans.

Rider (2) Elephant (1), energy and decisions



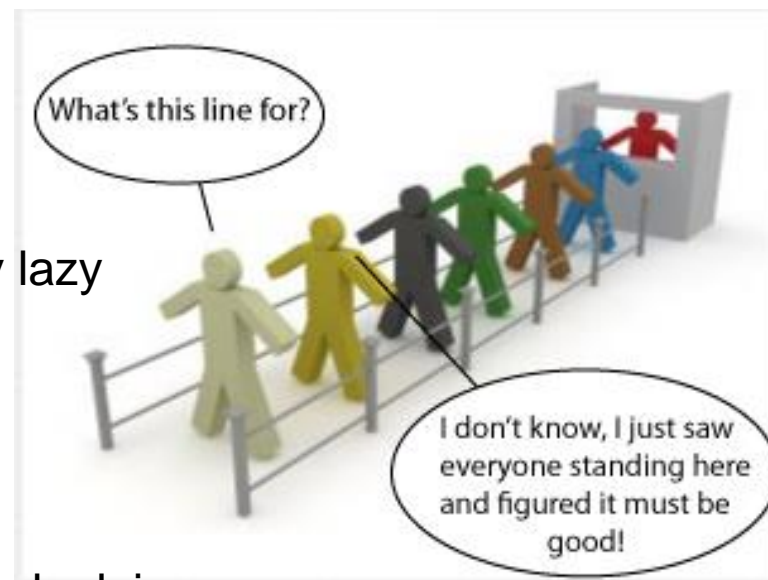
- System 2 (rider): analyze, think it through, reflecting, be in control, self-discipline, structured, organized
- System 1 (elephant): Intuitive, enthusiastic, simple way, "lazy", fast, wish for fast reward,
- **95 %** of all decisions are made by system 1 – that's why we should appeal to system 1 when you want people to behave in a specific way
- We have one amount of energy and we want as much as possible done/changed for this amount.

System 2 demands a lot more energy than system 1. We need to make a lot of decisions every day and to have energy enough for the whole day we need to use system 1 the most and do a lot of not "well thought out decision". We don't have enough energy to use system 2 a lot without getting really tired 😊

Nudging principles

- not brand new or complicated principles
- good tools when starting up nudging

- | | |
|------------------------------------|---|
| 1. Path of least resistance (POLR) | 1. We do what is easy – we are mostly lazy |
| 2. Salience | 2. We do what is visual for us |
| 3. Social proof | 3. We do what other people do |
| 4. Consistence | 4. Like to do more of what we are already doing (easy, conveniently, confidently) |
| 5. Default | 5. We just do what is already defined for us |
| 6. Feedback | 6. We like to be guided and getting praised |



Basicly – we want to use the tools to make it intuitive to make the right decision even though you are using system 1 – the fast, not analyzing, lazy system

Why nudging in agriculture

there is a need to change behaviour to work more safe, but is the nudging tool to fancy, to crazy for agriculture?

- Lot of accidents in agriculture ~ 90 % are due to wrong/bad behaviour...because of busyness, tarzan culture, to little instruction, ...
- ? Is that the wrong behaviour wouldnt be a fact if it was more easy to do the better/more safe behaviour
 - We are lazy people – also farmers and employees – if things seems difficult og time consuming we wont do it – then we rather take the chance and work unsafe
- It works in other branches so why not in Agriculture too?

Nudging - a little push in the right direction (in the direction you "deep down" actually want to go – forexample no one actually want to get hurt/experience accidents

Process tried out

- pig farm
- dairy farm

"It is the small things that matters" (employee)

Problem
(specific)

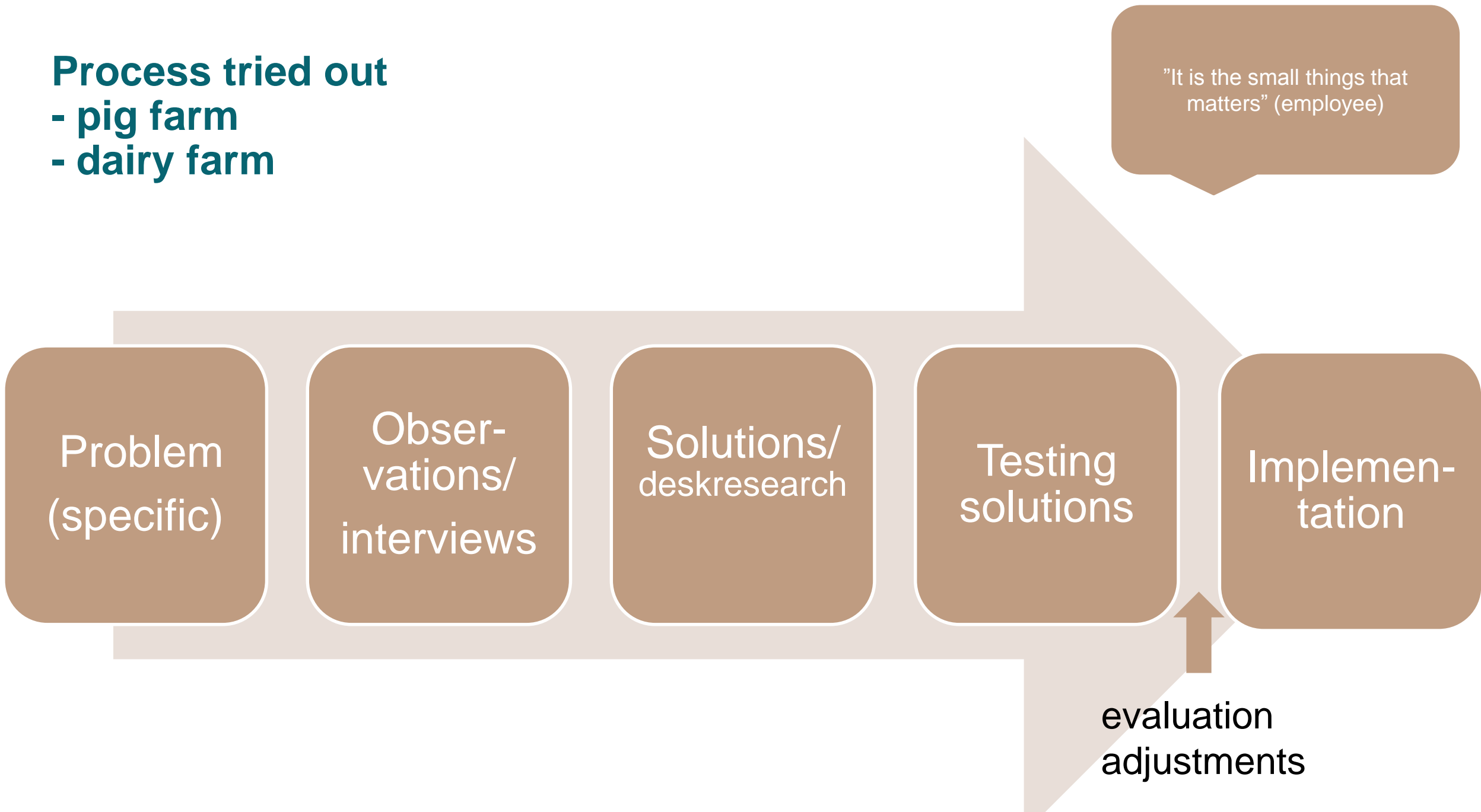
Observations/
interviews

Solutions/
deskresearch

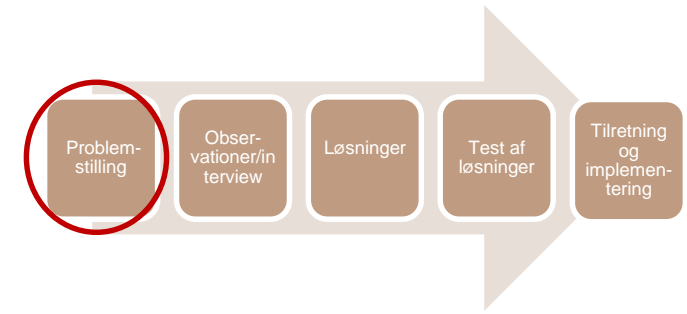
Testing
solutions

Implemen-
tation

evaluation
adjustments



Define the problem



Farmers wish (help out to meet his wishes):

Want it easy to hand-over the task for new colleagues and temporary workers.

The task should always be handled correct – and in a safe way

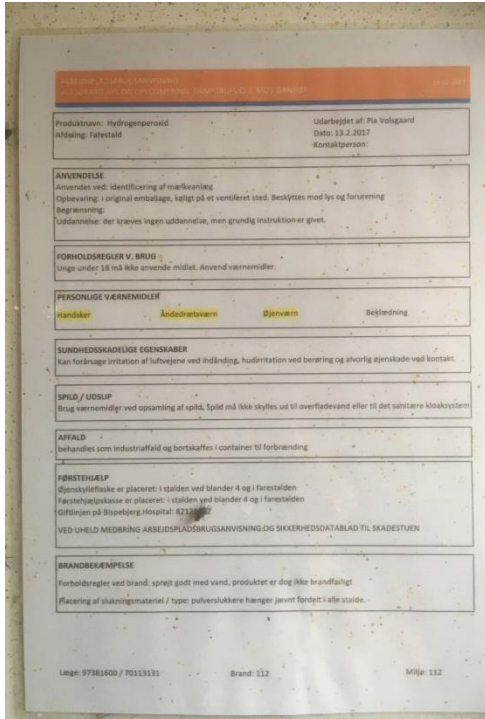
The task should be done effectively

SEGES wish:

To meet the above by using nudging principles

To implement H&S as part of the natural way to handle the task and not an add-on

Task – mixing feed in barrels for the piglets.
The barrels need to be cleaned with chemicals twice a week in a specific way to maintain high hygiene and avoid stomach troubles among piglets



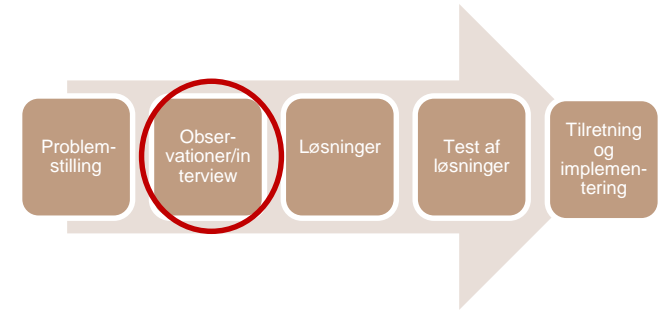
Datasheets

Bad measuringcups

- Hard to see without bad position.
- Risk for inaccurate pouring
- Risk for waste on the floor.



bad positions for pouring

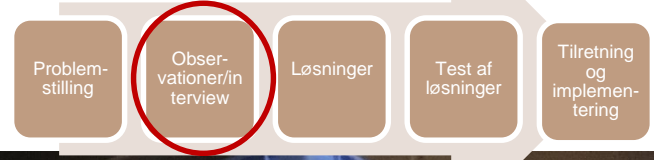


Broken glasses



"I dont use protection glasses because I poor chemicals in a specific way so I dont get it in my eyes."

Gloves was used— no glasses — no sleeves



Plenty of gloves on stock



Plenty of gloves in the stable

Plenty of gloves but far from where they should be used – changed for clean ones

Result : you put on gloves in the morning when entering the stable and dont change it when you clean the barrels – so you bring dirt to the ckeaning proces..

Either you wear the same pair of dirty gloves the enire morning untill lunch or you dont use gloves at all



Instruction

- Instruction was given one of the first days in DK
 - Directly from the farmer
 - In english
- The instruction is given further from the above employees to new employees by :
 - oral instruction
 - written instruction (see picture)

Risc for insufficient information, that the note disappears or get washed together with the overalls.

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Problemstilling

Observationer/interview

Løsninger

Test af løsninger

Tilretning og implementering



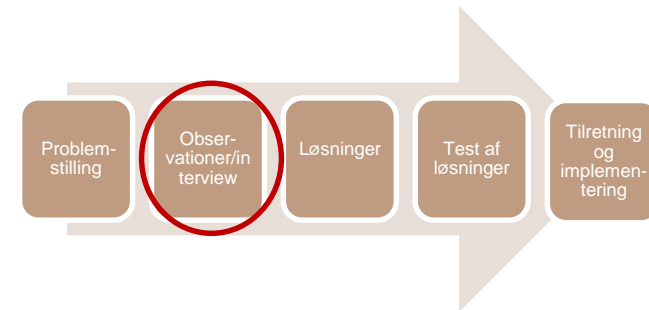
Instruction on a handwritten note in the pocket



Chemicals delivered in barrels to be poured into smaller cans



- Rubber hose (tubes) bought
- hoses doesn't fit to the pump
- 25 kg chemical cans up on the knee
- Gloves partly used
- Barrels placed far away from the barrels to be cleaned



4 kind of cans – blue and red

Risc for mistakes

– chemicals mentioned as the blue and red

- Hydrogen peroxid - brintoverilte - **blue**
- Topfoam (not used anymore) – **blue**
- MelkClean A – **blue**
- MelkClean S - **red**

Some instruksions on the wall but I dont know what it is or what it means...



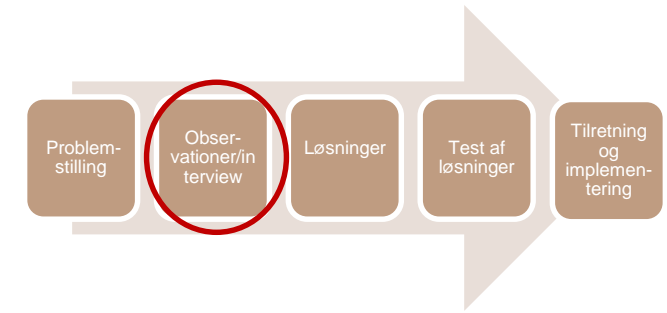
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Topfoam (blå)



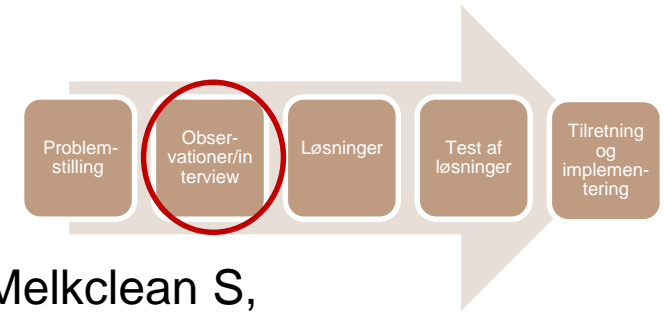
Hydrogen peroxid (blå)



MelkClean S (rød) og MelkClean A (blå)



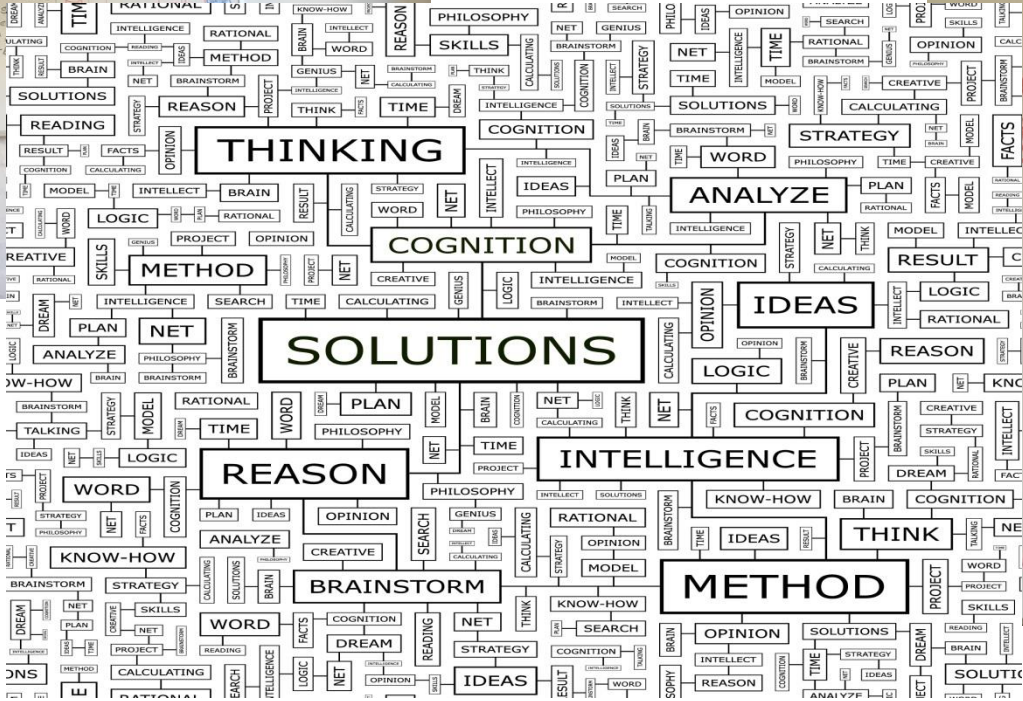
Blue and red barrel - hard to see which is what



- Never mentioned as Melkclean A og Melkclean S, men mentioned as blue and red
- Both barrels blue – hard to see the difference when the barrels was moved to another place



Nudging deskresearch



Coming up with solutions guided by nudging principles

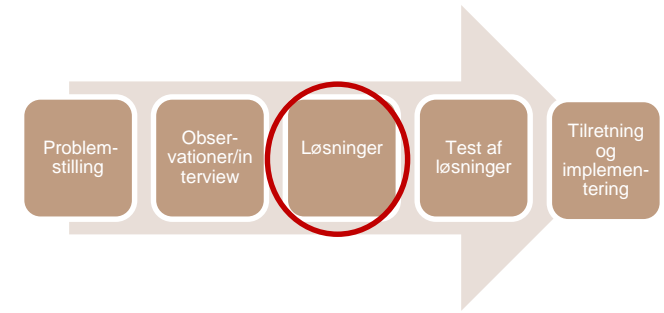
Pictograms (we do what is visible)

- We tried to visualize by colours when and how to use which chemicals
- Instruction – also used colours



Pictograms for the barrels so easy to see colours – which barrel for which can

Buying and producing solutions



- Bought pumpes for the cans
- Bought rubber hoses for pumpes for the barrels

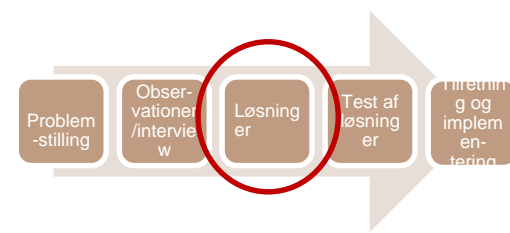


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- Bought the right gloves (!)
- Bought different type of glasses



First step – cleaning 😊

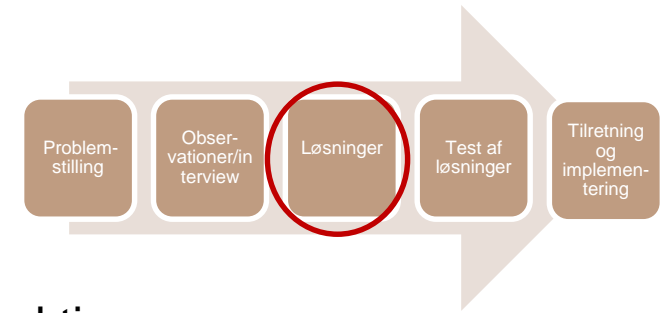


Mess grows more mess.

Get rid of what is not used anymore...



SOP – do the task correct and in a safe way

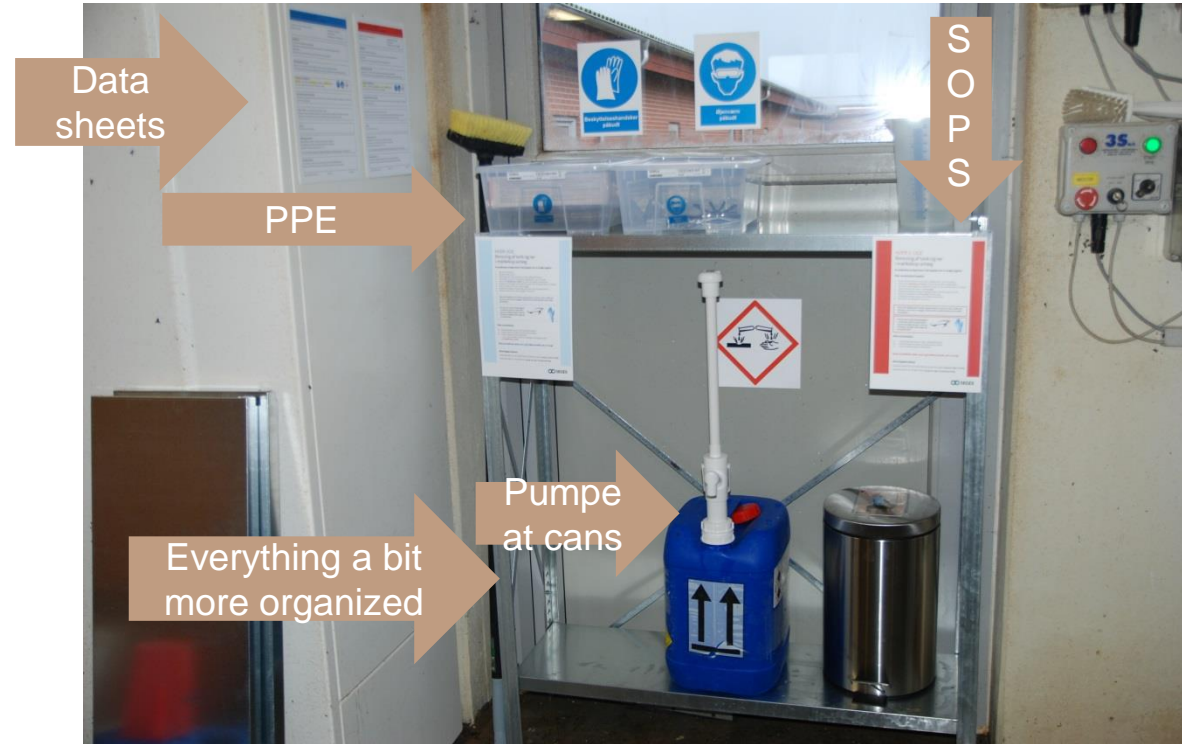


- Before – instruction



After – instruktion hængt hvor instruktion gør gavn

piktogrammer

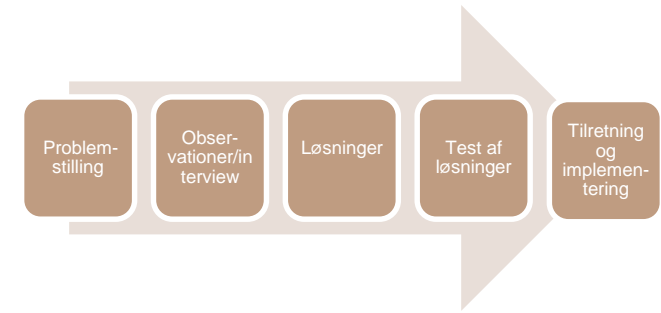


Before and after – ergonomic way of working



Pumpes, gloves and glasses

Datasheets, pictograms, ppe and instructions same place now



- Many remindes
- PPE right where it should be used – clean in boxes
- Instruction easy to read

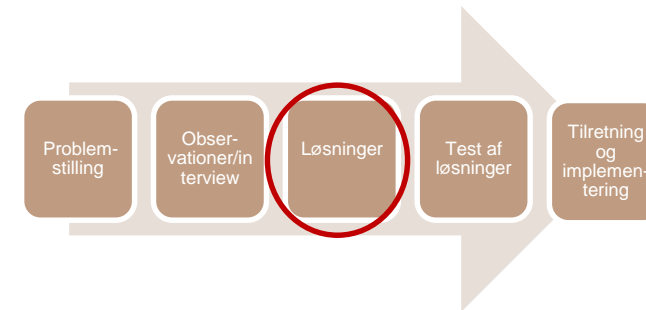


Before and after – hoses on barrels

Tubes didnt fit



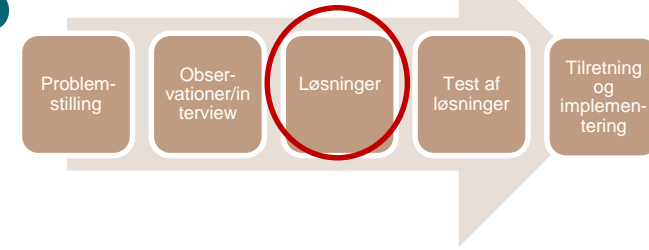
Before...



- **Nudge:** hoses with clamps on the pumps so everything fits perfectly
- **Result–** cans can easily be filled now without any heavy lifting and in a closed system without risk for chemicals on the skin
- **Principle:**
 - Defaults – we do what is decided for us
 - POLR – we do what is easy



Even better – moved the barrels, no more pouring into cans, but directly into measuring cup.



Nudge at first



Even better – fewer cans



New measuring cups so more precisely and better ergonomic way to work because you know easily see the amount you pour up

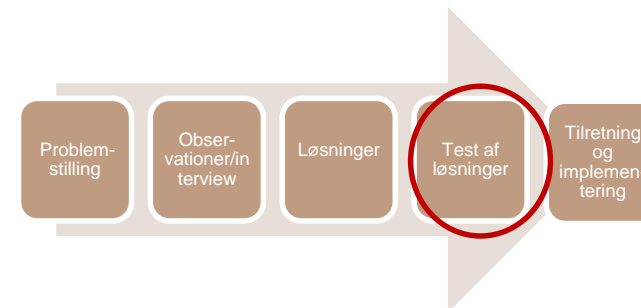


Short movie

- <https://vimeo.com/265558972>



TEST period – evaluation



EVALUATION – concerning the task of cleaning milk tanks

You have now worked two weeks with the new milk tank set-up, and we would really appreciate it, if Mihaj and Camilla would both fill in this questionnaire.

You just tick yes or no, and we hope you will also write more comments below.

Please return the completed questionnaire to [hbd](#)

EVALUERING - vedr. arbejdsopgaven rensning af mælketanke

Efter I har arbejdet 2 uger med det nye set-up omkring mælketankene, vil vi blive SÅ glade om Mihaj og Camilla hver vil udfylde dette skema.

Det er blot afkrydsning med mulighed for kommentarer, så dejligt nemt.

Håber, at I vil returnere udfyldt til hbd@seges.dk inden d. 1/12 – mange tak ☺

1	Do you use safety glasses more frequently than before?
2	Do you use gloves more frequently than before?
3	Has it been easier to change gloves more frequently than before?
4	Do you have better working postures than before (e.g. less stooped posture when handling cans)?
5	Do you experience less waste of chemistry when cleaning the can to the measuring cup?
6	Is it faster to perform the task than before?
7	Has handing over the task to a colleague/supervisor been easier than before?
8	Are you more confident about handing over the task earlier?
9	Do you think there will be fewer accidents (e.g. or splashing in the eyes)?
10	Has it become easier to perform the task (and reduced the risk of mistakes e.g. when cleaning the milk tanks)?
11	Have you been more focused on safety when cleaning the milk tanks?
12	Have you been more focused on safety when performing other tasks?
13	Would you recommend others to implement this set-up?
14	
15	

Please write more comments – we are very interested in your feedback!

	Ja (sæt kryds)	Nej (sæt kryds)
1	Bruger du oftere sikkerhedsbriller nu end før?	
2	Bruger du oftere handsker nu end før?	
3	Er det blevet nemmere ofte at skifte handsker?	
4	Har du fået bedre arbejdsstillinger end før – mindre foroverbøjet stilling ved håndtering af dunke?	
5	Er der mindre spild af kemi ved op hældning af kemi fra dunk til målebæger?	
6	Er det blevet hurtigere at udføre arbejdsopgaven end tidligere?	
7	Er det nemmere nu at overdrage opgaven til kollega/vikar nu end tidligere?	
8	Er du mere tryk ved at overdrage arbejdsopgaven nu end tidligere?	
9	Tror du der vil ske færre uheld end tidligere (som fx ætsning af hud eller sprøjt i øjnene)?	
10	Er det blevet nemmere at udføre arbejdsopgaven korrekt? (og dermed chance for færre fejl, når fx andre kollegaer/vikarer skal udføre opgaven)	
11	Har du fået større fokus på sikkerhed end tidligere når du udfører opgaven omkring rensning af mælketanke?	
12	Har du fået større fokus på sikkerhed når du udfører andre typer af arbejdsopgaver?	
13	Vil du anbefale andre at være med til at igangsætte lignende initiativer?	
14		
15		

Kom meget gerne med flere kommentarer – vi vil så gerne høre alle dine meninger:

First feedback – after 5

Til: Helle Birk Domino

Emne: Tak for sidst

Hej Helle

Tak for besøget i fredags.

Casper har kun talt positivt om det siden.

Vi har ikke glemt det gule og sorte bånd, men vi skal have slebet kanten for at det kommer til at sidde ordentlig fast.

Og med 2 på ferie i denne uge, har der bare ikke været tid endnu.

Markmanden er den ene på ferie, og det plejer at være ham,

Jeg holder ham fast på opgaven i næste uge.



evaluation

		Yes	No
1	Do you use safety glasses more frequently than before?	X	
2	Do you use gloves more frequently than before?		X
3	Has it been easier to change gloves more frequently?	X	
4	Do you have better working postures than before – a less stooped posture when handling cans?	X	
5	Do you experience less waste of chemistry when pouring it from the can to the measuring cup?	X	
6	Is it faster to perform the task than before?	X	
7	Has handing over the task to a colleague/substitute become easier than before?	X	
8	Are you more confident about handing over the task now than earlier?		X
9	Do you think there will be fewer accidents (such as skin etching or splashing in the eyes)?	X	
10	Has it become easier to perform the task correctly? (and reduced the risk of mistakes eg when colleagues/substitutes have to perform the task)	X	
11	Have you been more focused on safety than before when cleaning the milk tanks?		X
12	Have you been more focused on safety when performing other tasks?		X
13	Would you recommend others to implement similar initiatives?	X	

		Ja (sæt kr
1	Bruger du oftere sikkerheds briller nu end før?	
2	Brugere du oftere handsker nu end før?	
3	Er det blevet nemmere ofte at skifte handsker?	X
4	Har du fået bedre arbejdsstillinger end før – mindre foroverbøjet stilling ved håndtering af dunke?	X
5	Er der mindre spild af kemi ved op hældning af kemi fra dunk til målebæger?	X
6	Er det blevet hurtigere at udføre arbejdsopgaven end tidligere?	
7	Er det nemmere nu at overdrage opgaven til kollega/vikar nu end tidligere?	
8	Er du mere tryk ved at overdrage arbejdsopgaven nu end tidligere?	X
9	Tror du der vil ske færre uheld end tidligere (som fx ætsning af hus eller sprøjt i øjnene)?	X
10	Er det blevet nemmere at udføre arbejdsopgaven korrekt? (og dermed chance for færre fejl, når fx andre kollegaer/vikarer skal udføre opgaven)	X
11	Har du fået større fokus på sikkerhed end tidligere når du udfører opgaven omkring rensning af mælketanke?	X
12	Har du fået større fokus på sikkerhed når du udfører andre typer af arbejdsopgaver?	X
13	Vil du anbefale andre at være med til at igangsætte lignende initiativer?	X
14		
15		

Same procedure for a dairy farm at the moment

- **Problem**

The cell number is too high

- **Limitation**

Will work only about the milking process

- hygiene, stress among animals/employees, concentration, instructions

In the stable lot can affect the cell number too

A lot about hygiene and the rags to be used – be sure to have separated clean and dirty rags



Developing rags with 4 areas indicating that you have to use every area when you clean the 4 teats at the udder



Placement of the gloves – change more often – for the hygiene of your hands and to maintain clean milk



Nudging principle
Personel
Written "Hi xxxx – please
bring me along when you
are milking.....for refill..


You need water to stay focused 😊 we will
introduce more water when you work hard by
milking – you need liquid to stay focused 3-4
hours – both day and night

Visualize by colour when water dirty/clean

glasses to protect eyes and get closer to the cow without nervousness of getting dirt in the eyes



And much more – hopefully able to tell in Oslo at nordic meeting....☺

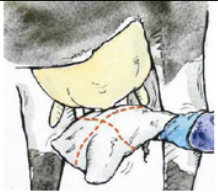
Emner	Løsninger/nudget	Begrundelser	Foto/illustrationer
Hæve/sænke gulv i malkegrav	Reetablering af hæve/sænke gulv Hvem: Morten Pris er en faktor	Medarbejdere har forskellig højde. Det kan være belastende med dårlig arbejdsstilling, forstyrre koncentrationen og desuden for hæmme for korrekt udførelse af opgaven (udsyn hæmmes fx) Oftest er der kun en malker af gangen og derfor vil der være stor nytte af at kunne indstille højden. Ved to malkere på en gang er indstilling af gulvet kun optimalt når de to malkere har ca. samme højde. Effekt: bedre ergonomi for malker, bedre syn for arbejdsopgaven og større kvalitet i arbejdet	Forskellig højde på medarbejdere 

Der udarbejdes mærkater til at klistre op lige der, hvor der malkes – lige under køerne

Også blå farve tilføjes for nykælvere/højri-

Alle interviewede kunne fint huske farvekoderne, men flere mindedes at det var svært som nyansat. Det kunne da heller ikke udelukkes at man kan komme i tvivl eller glemme det ind imellem i farten.

Effekt: korrekt malkning, ikke malkning af "defekt/syg" pat (hedder det det???)

Aftørring af pat-ter	Inndeling af klud i 4 felter – evt. i 4 farver Hvem: Vibeke undersøger muligheder på markedet	Inndeling af klud for intuitivt at forstå at hver del af kluden passer til en pat – ny pat, ny del af klud (hygiejne) Effekt: bedre hygiejne,	
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Vand til vask af hænder – anden funktion også? (sorry har vist misset hvad det vand ellers benyttes til)

Chlorpiller placeres netop ved siden af det varme vand, således, at når spand fyldes så også intuitivt at pillen skal i og opløses

Hvem:
Lars undersøger hvad der findes på markedet
Vibeke, kigger efter chlorpillebeholder (måske det udgår hvis Lars finder noget smart)

Placering af ur – hænger uhen-sigtsmæssigt pt

Uret placeres, hvor det bedst kan ses

Der opløses ikke altid desinfektionspillen i vandet, men ophældes udelukkende vand.
En pille med indikator for renheden vil være et plus, så man kan se hvornår vandet bør skiftes.

Man kunne sætte skilt i bunden af spanden, hvor der står "er jeg ren nok" – denne tekst forsvinder efterhånden som vandet bliver for beskidt og er således en indikator for hvornår vand skal skiftes – mulighed vi kan gøre hvis ikke Lars finder bedre mulighed som indikator

Effekt: hygiejnen bliver markant højere med tilsat desinfektionspille



Ændret placering vil både give mulighed for at

- medarbejderne bedre kan følge tid i forhold til malkeproces og
- opmærksomheden øges på vigtigheden omkring de 90 sekunder, når uret bliver mere synligt.



lyr og også spark, benyttes i dag ofte id Morten ønsker.

lvn for koen, men hindrer spark af malke-håndtering af køer som fx hånd på yver, ingen råb etc. virker beroligende og fører til

like a hand on my udder or my hip" mærkater forsynes med illustration af teksten

Hvem:
Helle udarbejder mærkat, Vibeke sender illustration til Helle til mærkat

Urolige dyr, nykælvere mærkes alle

mindre risiko for spark

Effekt: roligere dyr, færre spark – færre ulykker, lavere celletal
Nudge: synlighed

