



How FrieslandCampina works towards credible GHG reduction

Sanne Dekker | 24th January 2024

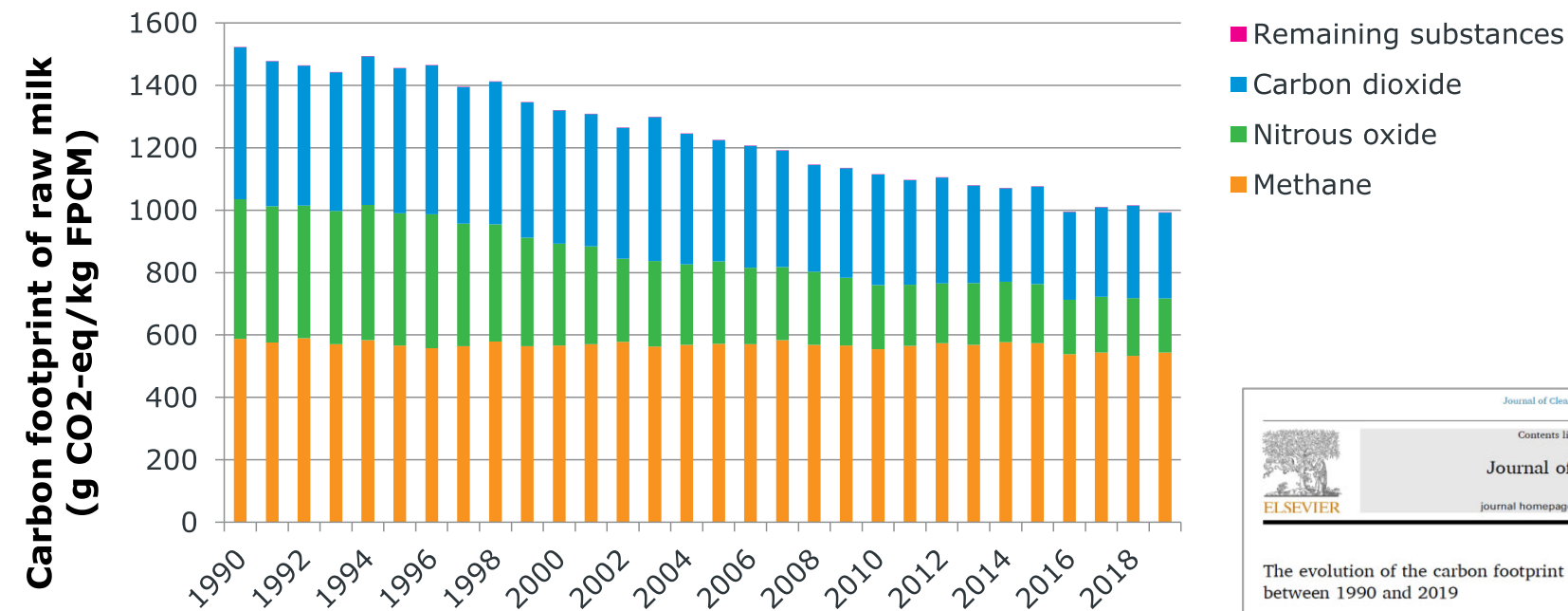
We have SBTi approved climate targets and published our climate plan

	2015-2030
Scope 1 and 2 Production and transport	-63%
Scope 3 Milk from member farms	-33%
Scope 3 other E.g. non dairy ingredients and packaging	-43%

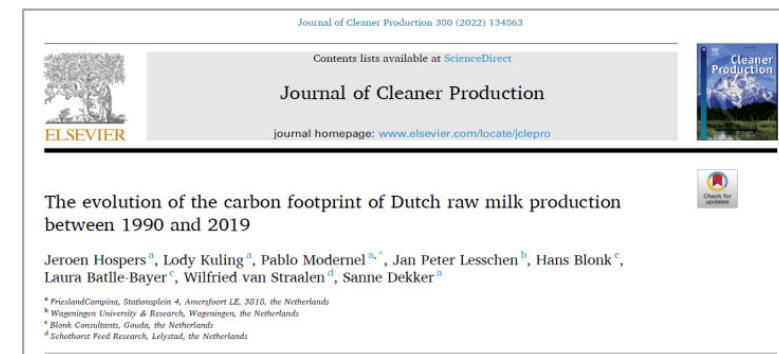
- Our climate plan can be found [here](#)
- Other sustainability targets and GHG target progress of FrieslandCampina can be found in our [annual report](#)
- Our 1.5 degree near term SBTi commitment can be found [here](#)



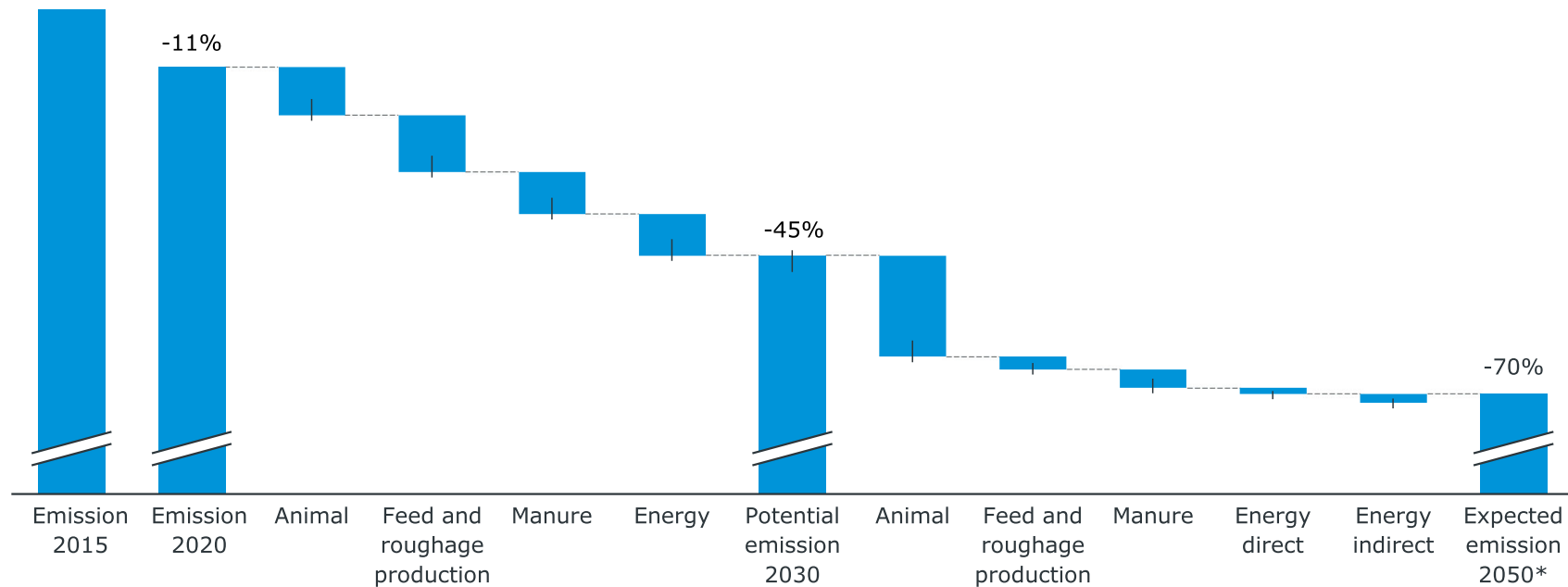
Set a 1990 baseline and prove reductions we achieved in the past



*Results excl. dLUC and C-seq

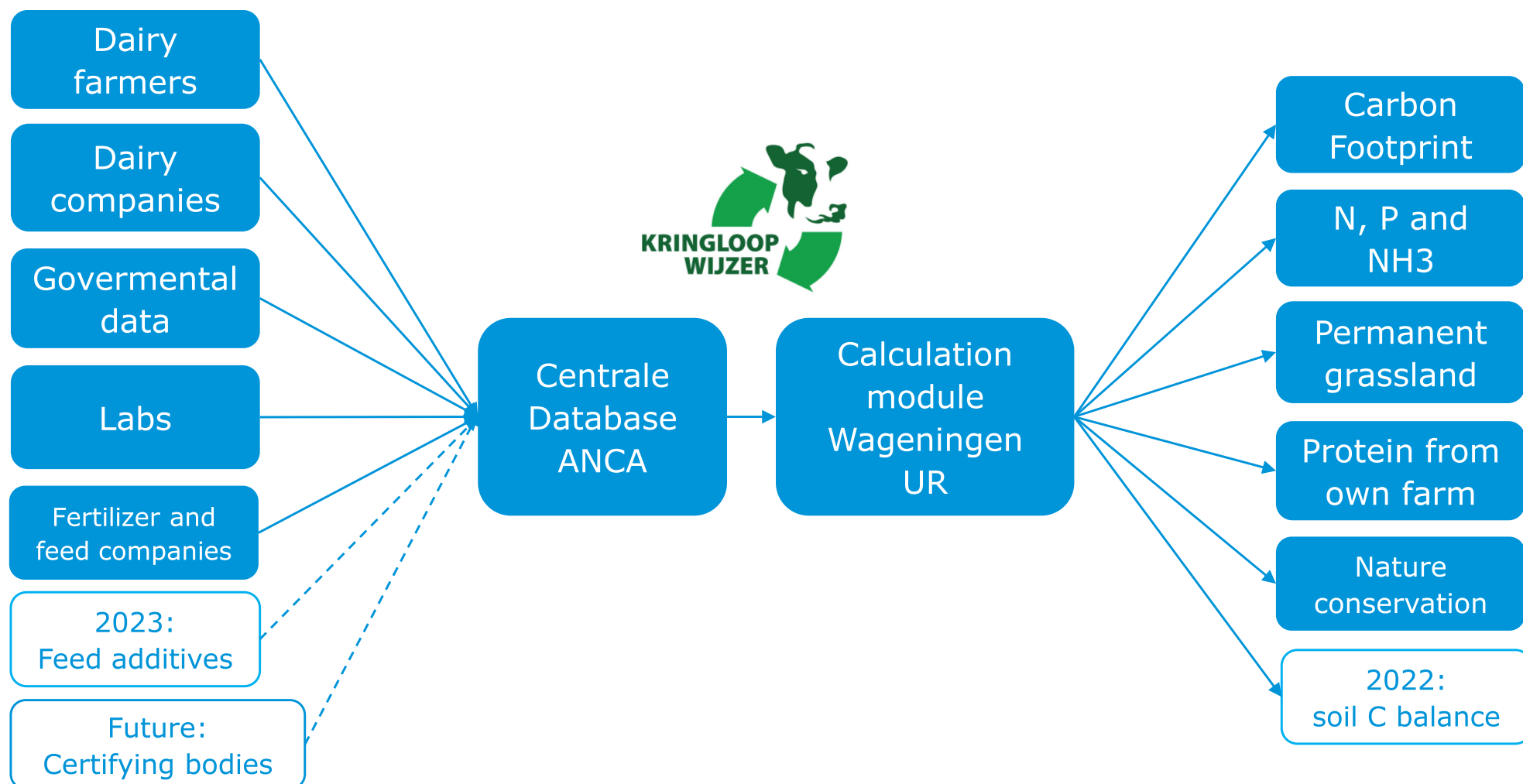


We estimated our carbon footprint reduction pathway, 2030 and 2050 milestones, and remaining emissions to achieve net zero



- To achieve net zero we need to compensate emissions in line with EU legislation through carbon removals (e.g. reforestation, carbon sequestration within our outside the production chain).

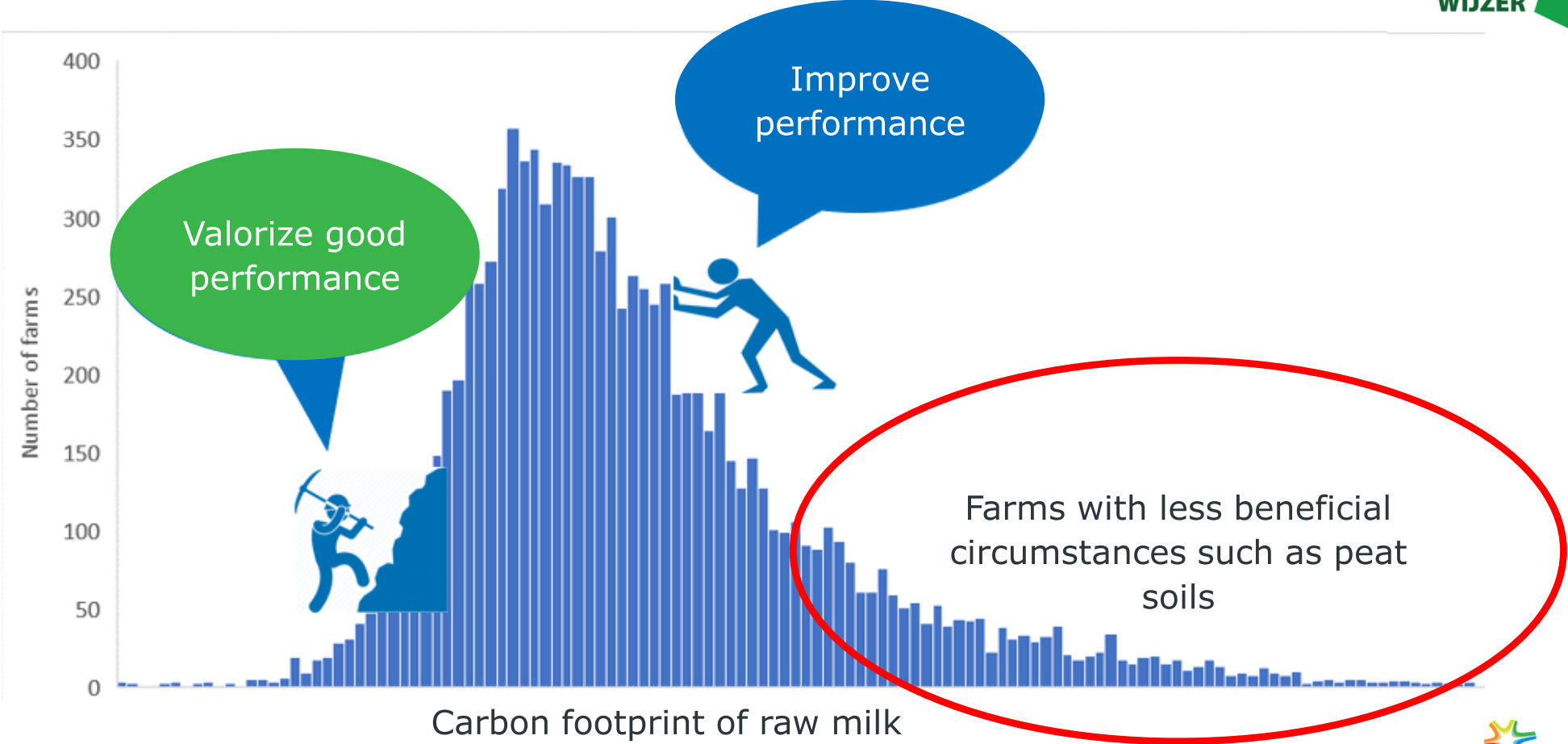
Data collection around sustainability in Dutch dairy is well organized through collective data sharing and monitoring (ANCA)



Our valorization concept for climate targets: Valorize GHG performance and bring the profit back to member farmers

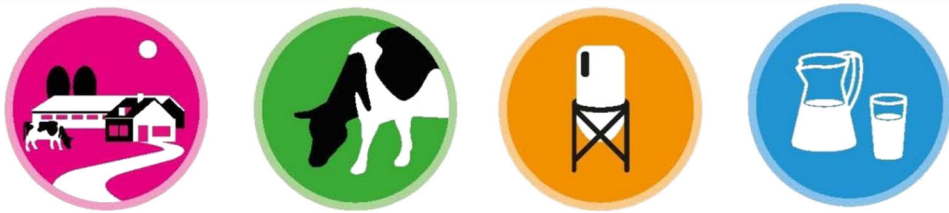


We monitor farm specific carbon footprints on every farm every year



How to reward good performance?

Example 1: Foqus Planet



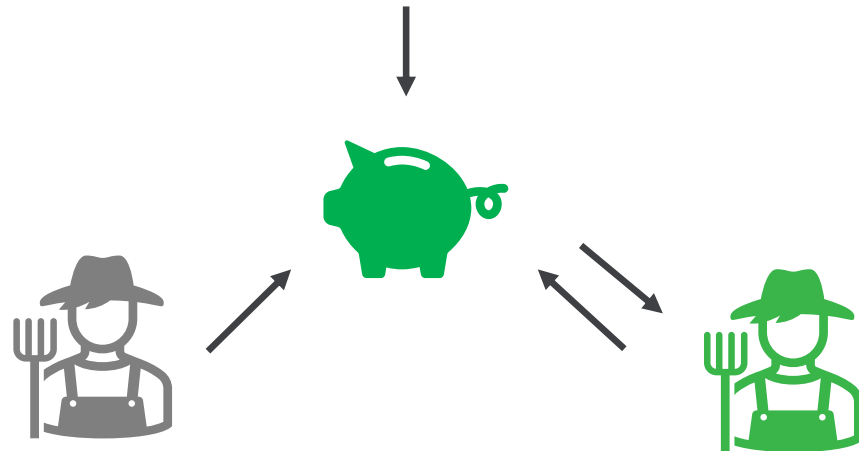
Basic requirements

Outdoor grazing

Sustainable development
















FrieslandCampina: yearly 24 million euros extra to farmers for sustainability



[link](#)

How to reward good performance?

Example 1: Foqus planet

Thema's	Indicatoren	Drempelwaarde (start toeslag)	Toeslagen	Topwaarde (maximale toeslag per 100 kg melk)	Totaal (bedragen per 100 kg melk)
 DIERGEZONDHEID EN -WELZIJN	 Levensduur (jaren + maanden + dagen)	€0,00	5 jaar en 4 maanden	7 jaar en 2 maanden	€0,10
	 Kalveropfok (KalfOK)	€0,00	70 punten	95 punten	€0,10
→  KLIMAAT	 Broeikasgasuitstoot (gram CO ₂ -eq/kg meetmelk)	€0,00	1.100 g CO ₂ -eq	775 g CO ₂ -eq	€1,50
 BIODIVERSITEIT	 Stikstofbodembalans (kg N/ha)	€0,00	160 kg/ha	20 kg/ha	€0,10
	 Ammoniakemissie (kg NH ₃ /ha)	€0,00	70 kg/ha	35 kg/ha	€0,10
	 Eiwit van eigen land (% eiwit van eigen land in rantsoen)	€0,00	45%	80%	€0,10
	 Blijvend grasland (% blijvend grasland)	€0,00	40%	100%	€0,10
	 Natuur & Landschap (% beheeroppervlak)	€0,00	0%	40%	€0,10
 WEIDEGANG	 Weidegang	Deelweidegang €0,40		Volledige weidegang €1,30	
					€X,XX +
					€X,XX
Fokus planet-inhouding:					€0,60 =
Uw totale toeslag per 100 kg melk:					€X,XX

How to reward good performance?

Example 2: Our Label 'On the way to planet Proof'

- In line with sustainability measurement in KLV and Focus planet
- Dairy farmers have to perform better than average on all three sustainability topics animal welfare, nature and climate
- Dairy farmers need to accelerate on one sustainability topic
- 700 member dairy farmers (~7% of coop) deliver 'planet proof' milk as a segregated milk stream
- Dairy farmers receive a large premium on the milk of 5 euro per 100 kg, but no Focus planet premium

[Link](#)



OF

Vaste On the way to PlanetProof-toeslag €5,00 per 100 kilogram melk
Minus coöperatieve inleg van €0,60 per 100 kilogram melk



How to valorize good performance?

Example 3: B2B contractual agreements

- FrieslandCampina helps B2B customers, by guaranteeing achievement of their climate target (SBTi)
- The customer pays FrieslandCampina a fee
- FrieslandCampina allocates best performing farms to customers to achieve the target
- The fee is reinvested to make farms more sustainable
- ~15% of our farms are covered by this type of agreements

Retail



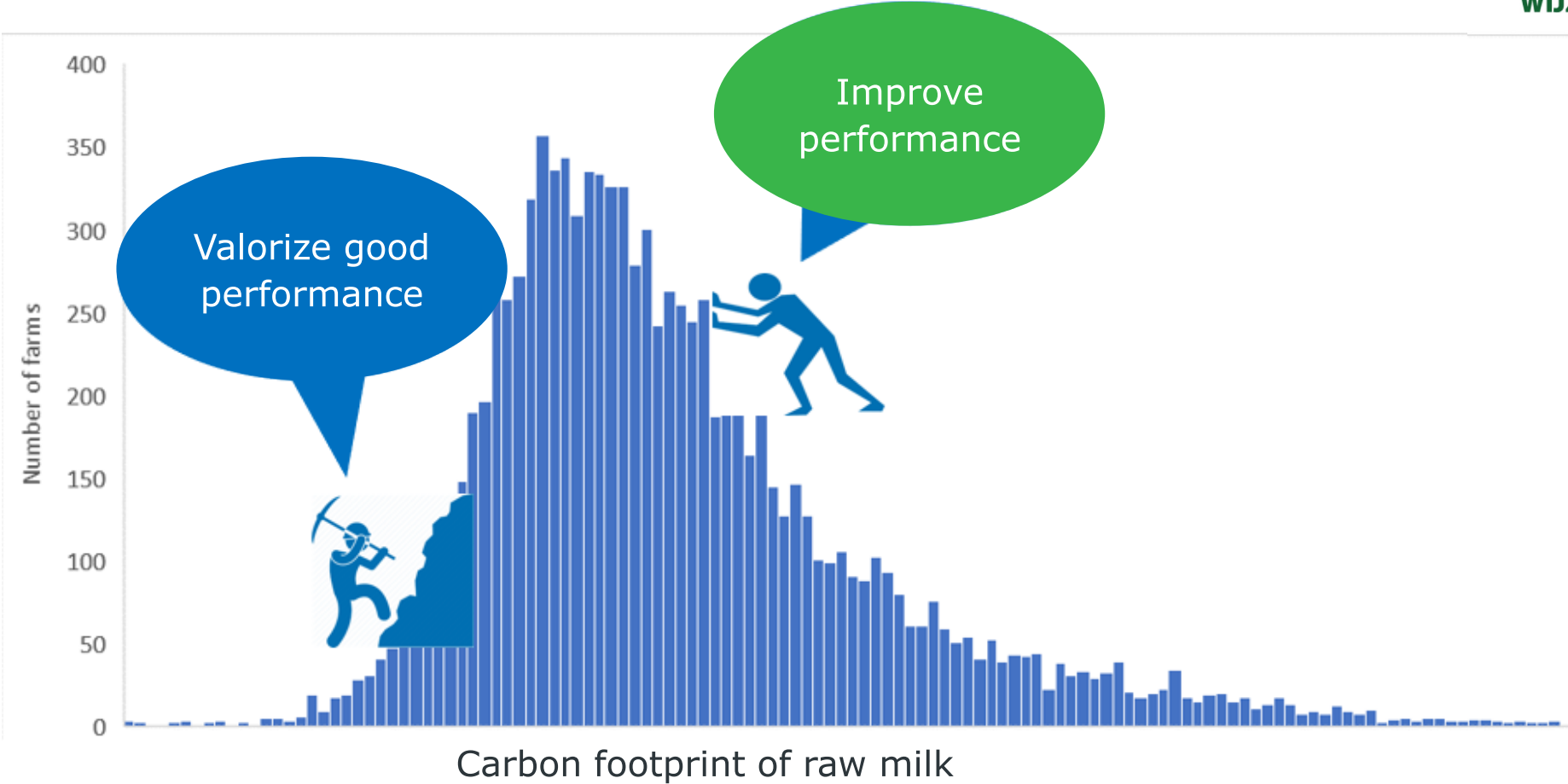
B2B



Under negotiation



We monitor farm specific carbon footprints on every farm every year



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Foqusbedrijven

- Sharing experience
- Workshops on farms
- 13 focus farms 1 in each district



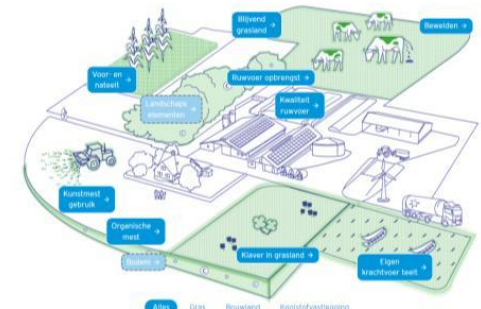
Maatregelentool

- Online projection tool
- Integral way to look at sustainability



Melkweb

- One place for knowledge and information
- Interactive infographic
- Up to date knowledge bank



How do we help farmers to improve their performance?

Example 2: Feed additive pilots

We support evidence building through collaborative research with feed additive producers

2021 pilot with Agolin

- Partnership: Agolin, Agrifirm, FrieslandCampina, Barry Callebaut
- 40 member dairy farms

2022 pilot with Bovaer (3NOP)

- Partnership: DSM, Agrifirm, FrieslandCampina
- 158 member dairy farms, 20,000 cows
- 7,6 kt CO2 eq. reduction in 2022

2022 pilot with Silvair (Nitrate)

- Partnership: Cargill, FrieslandCampina
- 5 member dairy farms, 3 months

We love working together with you too!!!



How do we help farmers to improve their performance?

Example 3: Solar Program

- Collaboration between FrieslandCampina and GroenLeven with a roof rental construction
- FrieslandCampina buys green electricity certificates from dairy farmers at a good price
- 100% green electricity in FrieslandCampina dairy factories
- 53% of the green electricity is generated by member dairy farmers
- Roofs of dairy farmers have the potential to provide electricity to 1 million Dutch households
- >3000 (30%) of member dairy farmers generate green energy



How do we help farmers to improve their performance?

Example 4: Program manure digestion

- Benefits of manure digestion:
 - reduce CH₄ from manure with 80%,
 - reduce NH₃ from farm with 50%
 - Potential to supply 750.000 households with gas
 - Potential to avoid using of artificial fertilizer on dairy farms
- Since 2016 Jumpstart program
- Aims to support realization of manure digestion on dairy farms
- FrieslandCampina buys green energy certificates (electricity and natural gas) from dairy farmers
- 46 digesters implemented on member dairy farms
- Business case and subsidies are challenging



How do we help farmers to improve their performance?

Example 4: Political hurdles for manure digestion

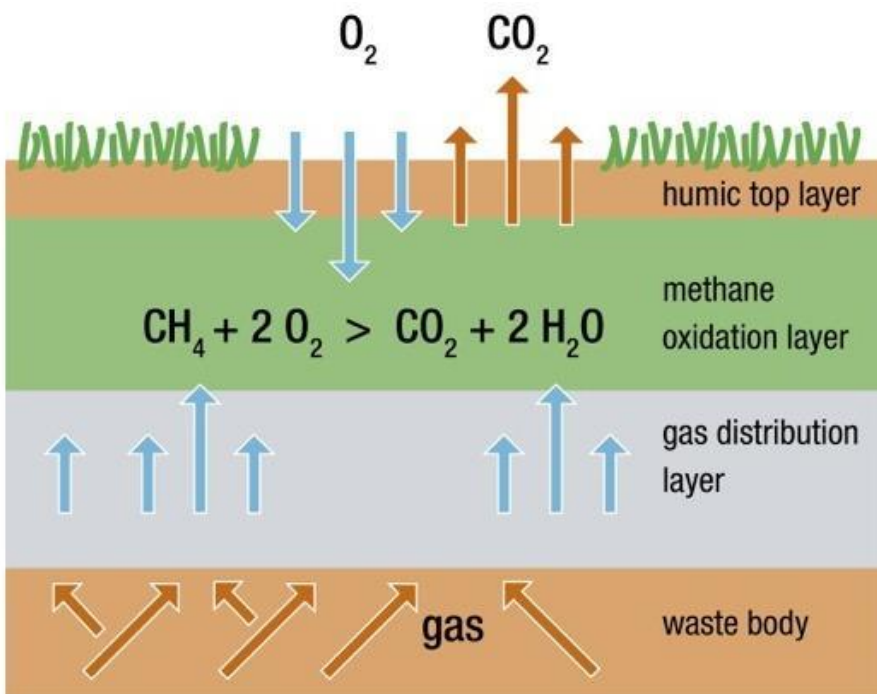
- No allowance to use N concentrates from digestate stripping as a chemical fertilizer replacement (EU policy)
- Network congestion both in electricity- and gas networks (NL policy)
- Inaccurate monitoring of manure digestion in governmental GHG models like NEMA and NIR (NL/EU policy)
- Dutch green energy subsidy system prioritizes best business case (NL Policy)
- Problems to get a permit to close stable floors (regional policy)
- Large farm size needed (+160 cows per farm) for a positive business case (ethical pushback)
- Farmers to pay for biogas piping, where this should be financed by government or energy network companies (NL policy)
- Different visions on scale of mono- vs co-digestion concepts (NL policy)
- Loans issues (Banks)



How do we help farmers to improve their performance?

Example 5: Research

Testing flaring and soil filter to transfer CH₄ in stable air into (biogenic) CO₂



Collect data on 100 farms of 10,000 cows using sniffers to obtain cow breeding data to reduce enteric methane emissions

Example 6: Defining and improving on regenerative farming

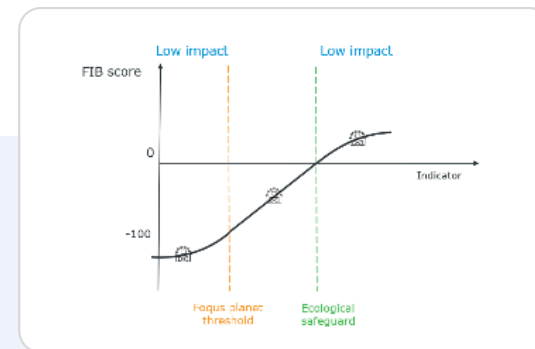
By linking (ecological) boundaries to performance of Foqus planet, we can calculate a Farm Impact Balance (FIB) score



Foqus planet indicators

- ✓ Result-based
- ✓ Clear targets per indicator
- ✓ Thresholds (★) and ecological safeguards (★) science- and policy based

input
for



Farm Impact Balance score

- ✓ A score per indicator: positive if things are already going well and negative if they could be even better
- ✓ Integral measurement for regenerative agriculture

Example 6: By starting with practice pilots, we can "learn by doing" and share our insights with our stakeholders



"Showcase" farms

- 5 farms in the ecological 'safe zone' (FIB > 0)
- Different archetypes of farms (soil type, farm intensity, etc)



Farming toward regenerative agriculture

- Selection of 15 farms based on motivation and farm characteristics
- Strength-weakness analysis based on FIB score
- Guidance by agronomist with improvement plan and projected impact on FIB score

Conclude with our financial challenges to make the dairy sector more sustainable



- Sustainalizing requires finance and the budget is tight
- The financial source is not always external so it adds costs to dairy products. This is ok, but only if we all finance at the same pace
- Sometimes you reward farmers that already perform well, while money is also needed to help farmers that are lagging behind
- Reductions do not always add to the farmers footprint, e.g. when credits are generated and traded externally
- Hard to move from pilots to common practice as added value evaporates
- Match with green claims and labelling and marketing remains challenging



Thanks!



Holistic approach to environmental assessment

Alberto Babolin
EDA – European Dairy Association





The Dairy Product Environmental Footprint (PEF)

The Dairy PEF - also known as Product Environmental Footprint Category Rules or PEFCR - is a methodology for assessing the environmental footprint of different dairy products, considering a broad array of environmental criteria and covering the full life cycle of the product, from feeding the animal to washing your yoghurt spoon. The project has been driven by the European Dairy Association (EDA) and it attests the European dairy sector's continuous effort to improve its long-term environmental sustainability.



uniting dairy excellence & ambition

Why the Dairy PEF?



A harmonised approach in the dairy the sector

It provides a harmonised approach from within the sector for measuring environmental footprint of products. The EU Commission and the sector want it for increasing the credibility of environmental measurements, compared to the proliferation of many non-reliable claims.

Identification of environmental hotspots

It is a assessment (LCA) based method that allows to identify the most significant environmental impacts linked to the production of certain dairy products, across a broad set of impact categories. It provides consistent, reliable, reproducible and verifiable results.



Minimising environmental impacts along the whole value chain

The project represents a cooperative effort of all stakeholders along the whole chain. It builds on the sector's several years' experience of environmental improvement. It is a simple and workable tool for all actors involved and all external bodies interested.

Environmental performance improvement over time

The Dairy PEF contributes to the improvement of the performance of the overall sector. The methodology can be used as an internal tool for companies for monitoring the environmental improvements over time and managing impacts associated with the products concerned.

