

Emerging innovations in East African dairy

(mobile) ICT Tools to analyse dairy profitability

Kenya

Pilot phase
Next step:
commercialisation

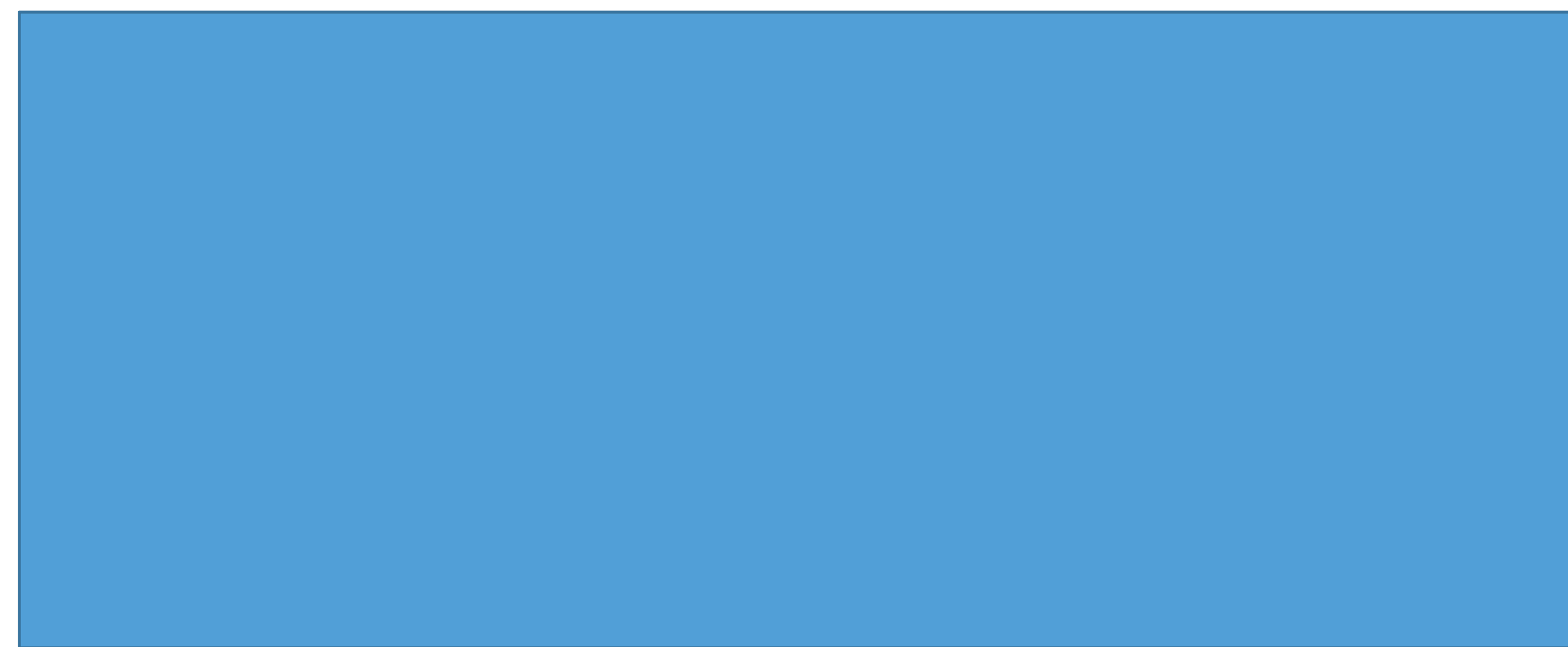
Logo SNV / KMDP

Introduction

The cost of milk production of individual dairy farms – and the breakdown of different cost components - are often unknown in Kenya, likewise in the rest of East Africa. The lack of record keeping by most farmers makes it more difficult to estimate these costs. Without understanding the cost structure, it is hard to make sound management decisions that could increase the profitability and viability of the dairy enterprise. Mobile ICT tools can help farmers progressively record farm data, and generate farm economic performance results which support their daily, short-term and long-term decision making.

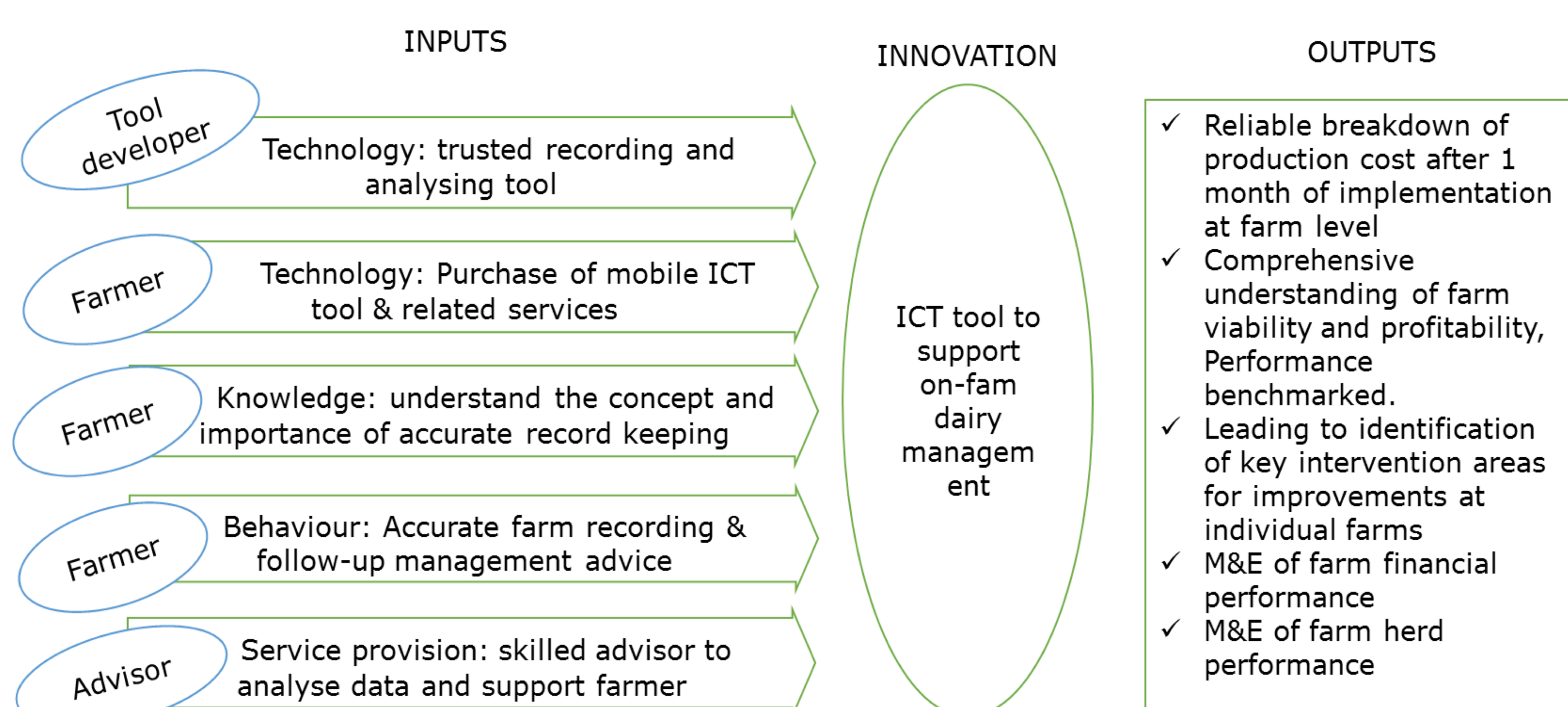
Mobile ICT tool: DairyNomics

There are different ICT tools developed to support farmers in their business operations. DairyNomics is such a tool. The tool is a 'stand-alone' total farm recording solution, to analyse financial performance and profitability of dairy farms in East Africa. DairyNomics captures the actual production costs per liter of raw milk by analysing data of monthly costs and revenues. This requires accurate record keeping by the farmer and his/her staff of all inputs and sales, which include next to milk sales of cows, fodder, manure and other products from the farm. The breakdown of costs is benchmarked with international standards or key performance indicators, which guide the farmer and the dairy advisor on the priority areas for farm interventions.



Picture 1. Dairy farmer using the DairyNomics tool

Investments & benefits of the innovation



Acknowledgements & more information

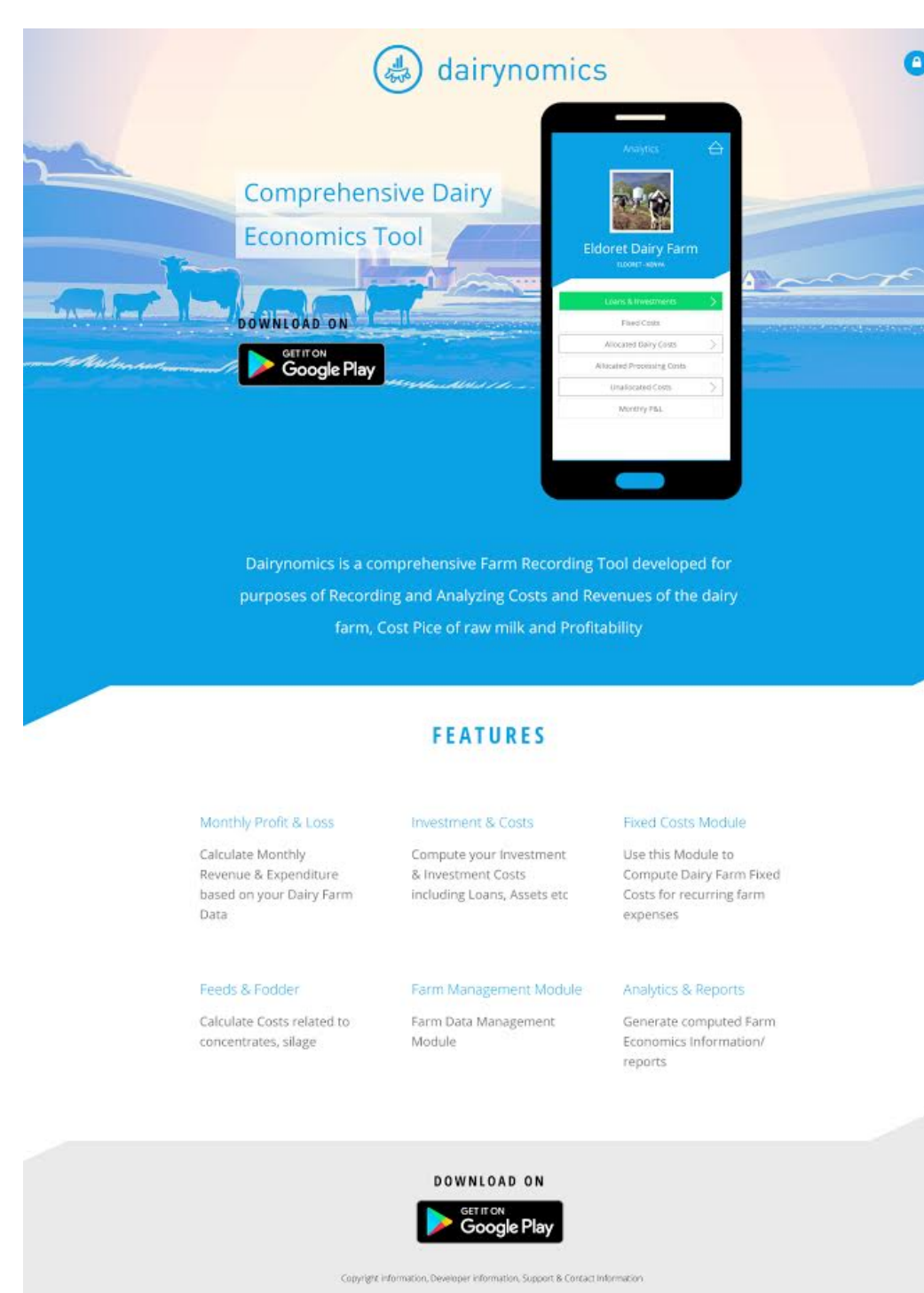
For more information on the opportunities of (mobile) ICT-tools:
SNV - KMDP: Anton Jansen, ajansen@snv.org
WUR: Asaah Ndambi, asaah.ndambi@wur.nl

Facts & Figures

- ✓ Developed & tested in Kenya, applicable in all (East) African countries.
- ✓ Applicable to smallholder, medium- and large-scale dairy farms; and to different dairy farming systems (from zero-grazing to pasture grazing).
- ✓ Piloted at 20 dairy farms in Kenya, for 4-6 months.
- ✓ Feeding costs were identified as the highest component of the cost of production, reaching 67% to 138% of the milk price
- ✓ 50% of the farms adopted the tool in their daily management.
- ✓ Investment costs for purchasing the tool: estimated around 20USD per farmer. Advisor: 30 USD per visit.

DairyNomics works as follows:

- Farmers use assigned farm advisors with whom they work
- Farmer and advisor set improvement targets for the next months
- Farmers record daily information in booklets designed to collect information for five record keeping modules of DairyNomics (i.e. Farm data; Milk records, Cow data; Feed & Fodder data; Financial)
- Advisor comes once a month and fills the data uploads the data in the DairyNomics App
- The advisor uses the tool to track farm developments and to continuously advice the farmer in reaching his targets



Results are presented as follows:

1. Results in monthly P&L: Total cost per month. Cost/litre Cost/acre. Monthly results
2. Monitoring monthly input and output with monthly P&L Revenue, Costs, Kg of feeds
3. Feed & Fodder costs: Cost of dairy meal, silage, baled products, grazing.

DairyNomics looks at operational cost/profit; EBITDA and can also consider depreciation & amortization: EBIT.

Challenges & Opportunities for scaling the innovation

- Accurate record keeping by farmers required, which is currently not common (i.e. feed stuffs need to be weighed to compute actual feed cost per month).
- Farmer needs to be business-oriented to pay and make good use of the tool and services
- Trained advisor needed to coach the farmer – advisors need many farmers in order to make their business sustainable
- If farm owners allow, farm data can be aggregated into a larger database and used for research and sector analysis
- Farmers develop interest in record keeping is encouraged especially when they are interested in meeting their targets
- The role of lead farms is helpful in adoption of the tool and changing mind-set

This information is developed in cooperation with SNV's Kenya Market-led Dairy Programme (KMDP), Jasper van den Brink (BioFoods), Wageningen Livestock Research. KMDP is financially supported by the Embassy of the Kingdom of the Netherlands in Kenya.