



# DairyBISS Baseline report

This research was funded by the Embassy of the Kingdom of the Netherlands in Ethiopia

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**WAGENINGENUR**  
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This baseline report of the Dairy Business Information Service and Support (DairyBISS) project presents the findings of a baseline survey among 103 commercial farms and 31 firms and advisors working in the dairy value chain. Additional results from the survey among commercial dairy farms are described in an additional report. The findings validate the main strategies of the project. Farms and firms are interested in joining a dairy business platform that includes members from the entire value chain. While currently there is gap between the demand and supply of good quality business information and advisory services, there is a willingness to pay for advisory services. Among advisors there is a need for training on technical topics along the dairy value chain and there is an interest in forming an advisor network to share experiences.



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# List of abbreviations and acronyms

AGP	Agricultural Growth Program
AI	Artificial Insemination
ATVET	Agricultural Technical and Vocational Education and Training centre
B2B	Business to Business
BDS	Business Development Services
BOR	Business Opportunities Report
CDI	Centre for Development Innovation, Wageningen UR
DairyBISS	Dairy Business Information Service and Support project
EDGET	Enhancing Dairy Sector Growth in Ethiopia (project of EKN, implemented by SNV)
EKN	Embassy of the Kingdom of the Netherlands
F&S	Fair & Sustainable
LMD	Livestock Marketing Development (program of USAID, implemented by CNFA and partners)
MoA	Ministry of Agriculture (Ethiopia)
M&E	Monitoring & Evaluation
NICHE	Netherlands Initiative for Capacity Development in Higher Education
SNV	Netherlands Development Organisation
USAID	United States Agency for International Development
WLR	WUR Livestock Research
WUR	Wageningen University & Research Centre



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# Summary

The Dairy Business Information Service and Support project (DairyBISS) has conducted a baseline survey in Addis Ababa and its surrounding in the first two weeks of September 2015. The objectives of the survey were to establish where possible a baseline for impact, outcome and output indicators in order to be able to measure progress over time: during the project and at the end of the project. These objectives of the baseline study also include informing the project on whether it is based on accurate assumptions about how change happens and to further shape the activities within the different strategies of the project. Respondents that represent actors along the dairy value chain were included in the study.

## Research questions

The study identifies research questions that are linked to the different levels (impact, outcome, and output) of the result chain. The research questions at impact level are:

- To what extent are the farms and firms that enter the project profitable?;
- To what extent do farms and firms make use of business information and advice to improve their profitability

On outcome level the research questions are linked to the three different outcomes or strategies of the project:

- Strategy 1: Development and support of Dairy Business Platform: What is needed according to potential members to make the dairy business platform an effective private sector network?
- Strategy 2: Business information and advice: To what extent is the business information and advice that is needed by the farms and firms currently available and of quality?
- Strategy 3: Capacity development and advisor network: What are the training needs of advisors? And how should trainings be organised? What is needed according to potential members to make the advisor network functional and rewarding for its members?

## Methodology

To answer these research questions primary qualitative and quantitative data was collected through a survey instrument using AkvoFlow. Separate questionnaires were designed for farms, firms and advisors that covered the different strategies of the project. Secondary information was used from research reports from Wageningen UR, governmental and non-governmental organisations and from key informant interviews conducted earlier for the business opportunities report. Interviewees were selected based on their location and type of dairy activities they engaged in. 103 farms were interviewed spread over the milksheds of Great Addis, Adama-Asella and Ambo-Weliso. 26 firms (of which 18 also give advice) and 5 advisors were interviewed covering the areas of Great Addis, Addis Ababa, Ambo-Weliso and Adama-Asella and the categories of animal feed processors and retailers, suppliers of by-products, dairy equipment, packaging, fodder seed, animal drugs and veterinarian equipment, AI, breeding, business development services, dairy technology, cooperatives/unions, dairy processors, traders and retailers. This sample is not necessarily representative for all commercial farms and firms that work in the dairy sector in Ethiopia, but gives sufficient information to inform the project on its further course of action and as a basis for monitoring project progress.

## Impact level: profitability

To answer the first research question, only a minority 23 of the 103 **farms** shared their financial information with us. Of these 7 were not profitable and the 16 that were profitable had an average profit margin of 35 percent. For **firms** 16 of the 26 provided us with their financial information and on average they have a profit margin of 8.3 percent from dairy activities. Secondly, 90 out of 103 **farms** use business information to improve the profitability of their farm and 12 out of 26 **firms** do so.

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## **Development and support of Dairy Business Platform**

Among the interviewed farms and firms there is a widespread interest in joining a dairy business platform. In order to make the platform functional and establish an effective private sector network, members should be selected based on their commitment to the sector and their role in the dairy value chain to cover the whole chain, with a focus on the private sector. The platform should meet quarterly, maybe more often in the beginning and less often later on, and start at a national level, developing more local chapters after a while. Most farms (50 out of 84 that answered) and firms (18 out of 23) prefer Addis Ababa as the meeting location. However, when needed, rotational meetings can be organised in different cities. The majority of the farms (62 percent) and firms (74 percent) would be willing to pay for membership once the pay-offs of membership become clearer. Both firms and farms expect to share experiences, learn about new technologies and innovations, share business information, network or link with various actors through the platform, while having some policy leverage where possible. The term “B2B brokering” was not often used by farms (7) and firms (10) to name their expectations from the dairy business platform, they rather called this linking with various actors (including other businesses and potential clients) and networking. Therefore the role of the platform to facilitate B2B relations using face-to-face events like matchmaking and business lunches, in cooperation with NABC and ABSF, is justified.

Farms and firms prefer to communicate within the platform through face-to-face meetings, visits, fairs and phone calls. While farms do not always have internet access, both farms and firms would appreciate communicating through Facebook and a website. Farms and firms listed a variety of topics they would like to see communicated, most importantly dairy farm management and market(ing) information. In line with this, both farms and firms use informal face-to-face meetings, phones and field visits for getting business information, while firms use more internet and social media and farms use the radio. Barriers to getting business information include availability, communication, lack of awareness (mostly for farms), and lack of an organized body that provides reliable and up to date information on dairy business.

## **Business information and advice**

Business information that farms most need and that is currently not sufficiently available is information on product marketing, product development, market outlooks and perspectives, and business planning. Firms need market information on the supply and prices of inputs, market trends and outlooks, product marketing, and information on the availability and prices of support services like logistics. Respondents are aware of business information being crucial to improve their profitability and productivity. However, the majority of them indicate that the available business information is not of sufficient quality, i.e. it is not realistic, practical, applicable, up to date and does not help to improve the production, productivity and profitability of the farm/firm.

The DairyBISS project works in a context where the majority of the farms (53 out of 103) indicate that there are no advisory services at all in their geographic location that are tailored to their needs. For farms available advisory services do not meet their demand on the topics of credit and finance, business development services, improved dairy collection and handling, AI, breeding and product marketing. For firms the gaps are highest in product development, client relationships, and financial management. Though many farms and firms have received advice for free in the past, there is a general willingness to pay for advisory services. What farms and firms value most in advisors is practical experience, good/hard working attitude, and an adequate education.

Business information can be developed within the project through business opportunities studies (like the one done in August/September 2015), student and internship program, and use of information from business cases that will be developed through technical innovation pilots on topics along the dairy value chain.

## **Advisor network and training**

The training and possible coaching activities of the DairyBISS project are mainly tailored to improve the skills of advisors that work or are willing to work for the commercial dairy sector. We have spoken to 23 advisors that give advice on many different topics that cover the entire dairy value chain. The services of these advisors would fit well with the needs from especially commercial dairy farms. Advisors indicate that they need further training on various technical topics relating to their specialty and beyond, such as financial management and accounting (6); milk quality and hygiene (6), business planning (4), dairy processing (4) and farm equipment (4). Most advisors would like to receive these

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trainings through longer face-to-face trainings, which can be combined with e-learning, peer-learning, and shorter meetings. There is some willingness to pay for trainings by advisor, depending on who develops and provides the training and what the precise topics are.

91 percent of the 23 advisors interviewed is or might be interested to join an advisor network.

In order to make the network functional and rewarding for its members, a network should allow for knowledge sharing, working collectively to address common challenges and sharing new information. The network should offer training, networking with other advisors, information on potential clients, and peer learning opportunities. Members should be selected based on their willingness to learn and share, willingness to pay for membership (sustainability), the topic of advice (to cover the whole dairy value chain), and their level of education. 81 percent is or might be willing to pay for membership, once it becomes clear what value the network adds for advisors. The network should start at the national level. Meetings can be held in Addis Ababa (14 out of 23 prefer this) and when required be made on a rotational basis on the topic or issue at hand.

In general, although the sample size of the baseline study was limited, the study indicates the need for establishment of a dairy business platform that can represent actors along the value chain; development of business information and private advisory services; capacity building and networking among advisors. The study also provides us, where possible, with the baseline situation for the impact, outcome and output indicators.

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# 1 Introduction

## 1.1 Background

Ethiopia has the potential to expand its milk production. It offers a good climate for high producing dairy cows in the highlands since there is fertile soil and high precipitation that create good conditions for high fodder production. However, the dairy sector is not yet developed to the expected level. Studies and progress reports indicate that there are systemic challenges in the dairy farms that contribute to low milk production. The major causes for low milk quality and production include limited access to land for production of forage seed and forage, inadequate and poor access to quality forage seed, low extension service and trainings on forage production, and poor feeding system to achieve optimum milk production with proper feed ratios. To increase milk production in a sustainable manner there are constraints such as poor genetics of cows, inefficient AI services and lack of crossbred dairy heifers (high heifer prices and poor calf rearing on farms). The animal health service is also not responsive to farm demands for extension advice and adequate and quality drug supply. Lack of market outlets for milk and milk products is also a main issue in the dairy sector. Seasonal fluctuation of demand which causes inconsistency in milk supply and processing, lack of milk quality and grading standards, and enforcement mechanisms, and absence of quality based pricing incentives are issues widely mentioned by value chain actors.

Currently, Ethiopian government has prioritized the further development of the dairy sector in its GTP II. It shows commitment by designing the Livestock Master Plan (LMP) for 2015/16-2019/20 and forming a new Ministry for livestock and Fisheries that is mainly responsible for initiating livestock related policies and strategies and for dealing with the implementation of LMP and other livestock development interventions. The LMP states that domestic milk production will be doubled by 2019/20 and will reach 7,967 million liters/annum. This increase will require investments and improvements in yields of fodder crops, feeding, genetics, health and dairy processing.

The LMP puts forward two main strategies to realize this ambitious goal: The first one is to transform the family dairy farms in the highland moisture sufficient production zone to **improved family dairy (IFD) systems** that are mainly market-oriented. The second strategy focuses on flourishing commercial-scale **specialized dairy units**, and improving milk production from indigenous (or local) cattle breeds as well. Unlike the previous dairy interventions, medium and large-scale commercial dairy farms get attention in the LMP. This may lead to various supports, including extension service, which is fundamental to improve their productivity and economic results.

The DairyBISS project is designed in alignment with the key government strategy to **flourish commercial-scale specialized dairy units**. The project works to contribute to further development of private dairy farms and firms through business service development to dairy commercial value chain actors (farms, input suppliers, milk processors etc.). The following conclusions form the basis for inception of the DairyBISS project.

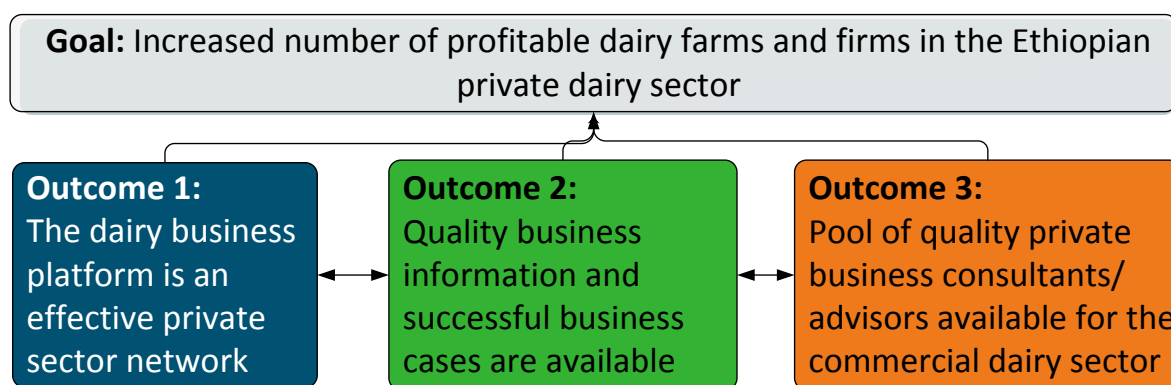
- The specialized medium and large-scale dairy farms could be catalysts in local dairy development and could facilitate the further commercialization of smallholder dairy farming as well as input & service delivery in their vicinity once the farms can serve as example;
- Most dairy development initiatives, including the government extension system, provide limited support on knowledge and innovations that are suitable to medium and large-scale specialized dairy farms;
- The private dairy sector (commercial medium and large-scale dairy farmers, milk processors, and input suppliers) lacks up-to-date knowledge and advice, skilled staff, exposure to new innovations, and international linkages;
- Introduction of new innovations and improvement of management at farms and companies is still very dependent on foreign expertise. A broader base of expertise and qualified staff is needed for the sector;

- The need and opportunities for private advice to medium/large-scale commercial farms is growing. However, the capacity and knowledge level (technical, business development) of Ethiopian private advisors is still limited.

Therefore, there is a need for additional activities in terms of linking the various private dairy sector initiatives by means of setting up a dairy business platform for networking, business development support, and capacity and knowledge base development. Accordingly, DairyBISS is initiated by Wageningen Livestock Research to contribute to development of the commercial dairy sector.

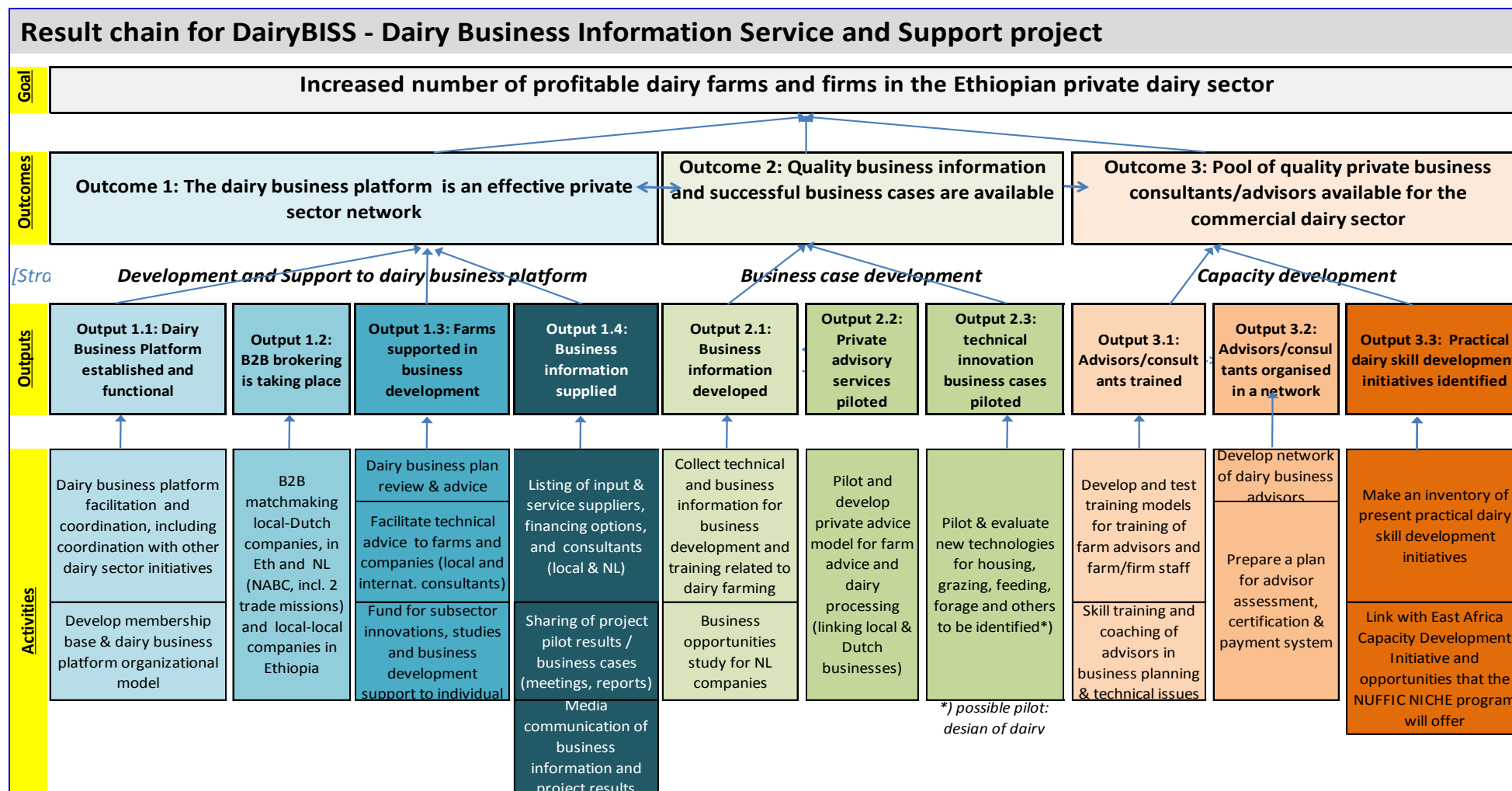
The main strategies and outcomes of the project, as summarized in the following figure, are:

- Develop and support a dairy business platform to become an effective private sector network for business development, B2B relations, business information, and learning;
- Develop quality business information and examples of successful business cases to support business development;
- Develop training modules (for dairy business consultants/advisors, farm managers, staff of milk collection centres) and a pool of quality private business consultants/advisors for specialized commercial dairy farms and dairy related firms.



**Figure 1** Summarised result chain

Comprehensive information about private dairy farms and firms in the project results is crucial to assess the performance indicators of the project and to draw lessons for scaling up further implementation. Accordingly, the DairyBISS project planned to carry out a baseline survey in its primary target area (the major milksheds of Oromia regional state and Addis Ababa), so as to acquire more comprehensive information on key areas underlying its goals and objectives. The DairyBISS result chain on the next page gives a more detailed overview of the goal, outcomes, outputs and activities of the project.



**Figure 1** Result chain DairyBISS

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## 1.2 Objective of the baseline study

The objective of this baseline study is to establish a comprehensive information base about the project result indicators at impact, outcome and output level. This means that a baseline is established for these indicators in order to be able to measure progress over time: during the project and at the end of the project. The objectives of the baseline study also include informing the project on whether it is based on accurate assumptions about how change happens and to further shape the activities within the different strategies of the project.

The study identifies research questions that are linked to the different levels (impact, outcome, and output) of the result chain. The research questions at impact level are:

- To what extent are the farms and firms that enter the project profitable?
- To what extent do farms and firms make use of business information and advice to improve their profitability?

On outcome level the research questions are linked to the three different outcomes or strategies of the project:

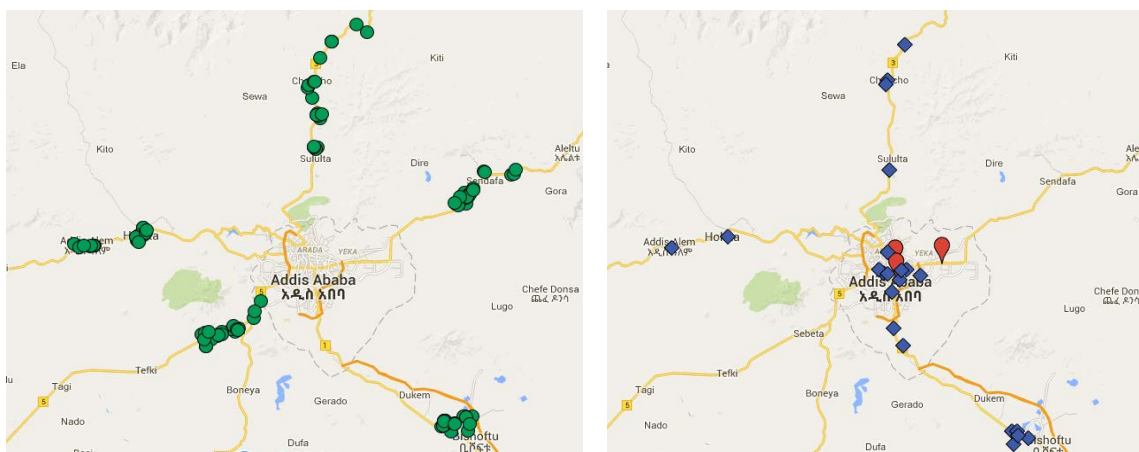
- **Strategy 1:** Development and support of Dairy Business Platform;
  - What is needed according to potential members to make the dairy business platform an effective private sector network?
- **Strategy 2:** Business information and advice;
  - To what extent is the business information and advice that is needed by the farms and firms currently available and of quality?
- **Strategy 3:** Capacity development and advisor network;
  - What are the training needs of advisors? And how should trainings be organised?
  - What is needed according to potential members to make the advisor network functional and rewarding for its members?

Within each strategy or outcome there are different outputs that need to be achieved in order to reach the results at outcome level. The subchapters zoom further in on the outputs that are relevant for this baseline study.

## 1.3 Scope of the study

The study focuses on gathering information on various result levels of the project. Hence, the major task of this study is to provide basic information on impact, outcome and output results. Following the research questions mentioned above, the study focuses on the profitability of farms and firms in the commercial dairy sector; the needs for a dairy business platform as an effective private sector network; the availability and quality of business information and successful business cases that can support dairy business development; and on the availability and quality of private business consultants/advisors for the commercial dairy sector.

In terms of geographic scope the focus of the baseline study is on the milk sheds of Oromia regional state and Addis Ababa. The maps below give a general overview of the location of the interviewees. This will be discussed in more detail in chapter 2.



**Figure 2** Geographic scope of the baseline study

## 1.4 Methodology

Based on the objectives and the scope of work outlined above, a study team was organized into two groups. The first group was responsible to collect and analyze information on commercial dairy farms while the second team was working on collection of information on firms who are engaged as input supplier, service provider, processor, trader, retailer, or wholesaler.

A survey instrument was developed, using the AkvoFlow smart phone application, with the purpose of collecting qualitative and quantitative data to answer the research questions. It contains a structured questionnaire with separate forms for farms, firms and advisor that do not belong to a firm. It has sections on general information, advisory service experience and need, practice of using business information, and current and future need, interests and requirements to participate in a dairy business platform, and access to communication means. Additionally, advisors and firm managers that give advice were asked questions about trainings for advisors and joining an advisor network.

The data collection for commercial dairy farmers was conducted during four weeks in the month of August 2015, while interviews for firms and advisors were conducted during two weeks in the month of September 2015. A validation workshop was organized on October 6, 2015 during the first dairy business platform meeting where the preliminary results of the baseline study were presented and discussed among potential platform members. The results of this workshop are incorporated in the present report.

In addition to the surveys conducted for the baseline study, in August – September 2015 interviews were conducted in the light of developing a report on business opportunities for Dutch investors in the dairy sector in Ethiopia. Jelle Zijlstra and Tinsae Berhanu interviewed 12 key informants on a number of issues including their perceptions on a dairy business platform and advisors network, business information, future prospects and profitability of dairy sector. Their information has been used to further interpret the baseline results.

### 1.4.1 Type and sources of data

Key research questions drove requirements for quantitative and qualitative data. These data are generated from secondary and primary sources as follows:

- **Secondary data**– this refers to quantitative and qualitative information from Wageningen UR research reports, Governmental and Non-Governmental Organizations' reports and studies. Progress reports and lessons documented by development partners such as LMD, SNV, and ACIDI/VOCA on subjects related to dairy sector, such as value-chain analysis;
- **Primary data** – these are firsthand information materials from interviews with the informants. Informants included commercial dairy farmers, input and service providers, processors, traders and retailers, and key informants.



### 1.4.2 Sampling procedure and limitations

The Ethiopian milk production system is based on a milkshed development pattern/approach that relates to the market and distance from urban centers. The milk production system in Ethiopia is classified as urban, peri-urban and rural. All the other systems such as subsistence, smallholder, commercial, intensive, extensive, highland and pastoral are subsets of this general classification (Brandsma et al., 2012: 89). Thus, based on the belief that most socioeconomic situations are directly and indirectly dictated by the surrounding milk shed environment, it was decided that milk shed consideration should be used for sampling purposes of the survey. Thus, the quantitative instruments were addressed to 134 commercial dairy farms and firms who were selected in purposive manner from the three milk sheds in Oromia region and Addis Ababa city government where firms have been clustered across the business they are engaged in. The sample milkshed are:

- Great Addis Milkshed (North Shoa of Amhara and North Shoa Oromia);
- Adama-Asella Milkshed (East Shoa); and
- Ambo-Weliso Milkshed (West Shoa)

In addition, Addis Ababa which is the capital of Ethiopia was also identified as one study area for firms. Accordingly, qualitative and quantitative data were collected from:

- 103 commercial farmers;
- 31 firms and advisors.

The size of sample for firms and farms was determined based on the number of commercial farms and firms operating in each of the milksheds. The sampling procedure followed a combination of stratification (clustering), purposive sampling and random selection of farmers and firms to ensure and enable capturing of the existing diversity and variation with respect to the socioeconomic elements of the environment in the study area. Table 1 shows the number of farms and firms and advisors that were interviewed per area or milkshed.

Table 1  
*Sampling per geographic area*

Survey Area/ milkshed	Number of farms / firms interviewed	
	Commercial farms	Firms and advisors
Great Addis	42	4
Addis		16
Ambo-Weliso	41	2
Adama-Asella	20	9
Total	103	31

Interviewees were furthermore selected based on where their type of activities placed them in the dairy value chain. Table 2 shows how many interviewees were selected per category.

Table 2  
*Sampling per category*

Place in the value chain	Number of interviews	Further specification
<b>Input supplier</b>	13	7 animal feed processors & retailers and by-product suppliers; 2 dairy equipment; 1 packaging; 1 fodder seed; 2 animal drugs and vet. Equipment
<b>Service provider</b>	9	2 AI, 2 breeding, 3 business development services, 2 dairy technology
<b>Producer/Commercial farm</b>	103	
<b>Cooperatives/unions</b>	3	
<b>Dairy processors</b>	3	
<b>Traders and retailers</b>	3	

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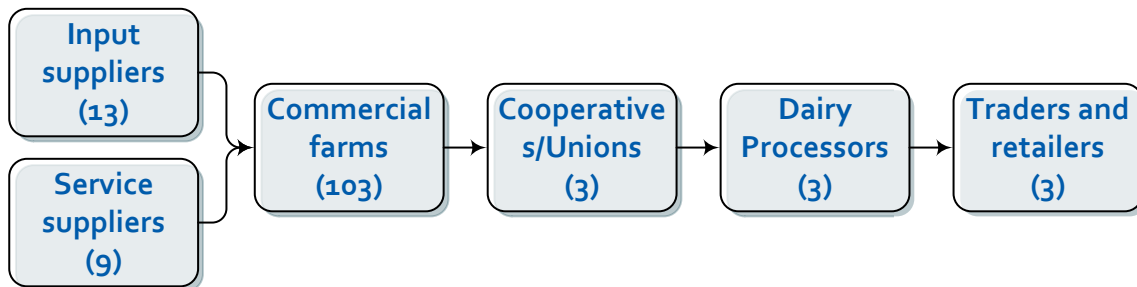
It must be noted that this sample is not necessarily a representative sample of all commercial farms and firms that work in the dairy sector in Ethiopia. Due to time and resource constraints only a limited number of interviews and surveys could be conducted. Unfortunately we were not able to interview any veterinarians specifically, though most animal drugs and veterinarian equipment suppliers were veterinarians by profession. Also interviews with financial institutions were not possible within the timeframe of the baseline study but some initial linkages have been made for follow up as the project develops. Furthermore, limitations of this study include that not all farms and firms were willing to share financial information on their profitability; therefore a one-shot survey is not expected to provide full information, particularly when it comes to the profitability of commercial dairy farms and firms. Hence, these limitations should be born in mind while interpreting the results in this respect. We believe, however, that the information collected and analysis provided will suffice for the purpose of the baseline in the study area; that is to further inform the project on its course of action and to serve as a basis for monitoring of project progress.

#### 1.4.3 Data Analysis

As far as method of data analysis is concerned, the standard ways of data compilation, variable generation, computation and aggregation were followed. Both quantitative and qualitative analyses were carried out. The unit of analysis varied depending on the type of information intended to be provided. Attempts were made, as much as possible, to provide disaggregated information on firms and farms. The preliminary findings of the study were thoroughly discussed in a validation workshop during the first dairy business platform meeting on October 6, 2015 in Addis Ababa.

## 2 Dairy value chain actors interviewed

As mentioned in the previous chapter, a total of 103 farms and 31 firms were interviewed. The firms come from across the dairy value chain. We interviewed 13 input suppliers, 9 service providers, 3 cooperatives/unions, 3 dairy processors, and 3 traders and retailers. It must be noted that many firms fit into multiple categories, e.g. a cooperative that also processes milk. In the figure below the firms are presented as they were selected, later on we will provide some more information on the type of activities the firms implement. In this chapter we will provide some general information on the farms and firms that we have interviewed in order to give some background to who they are and how they are involved in the dairy sector.

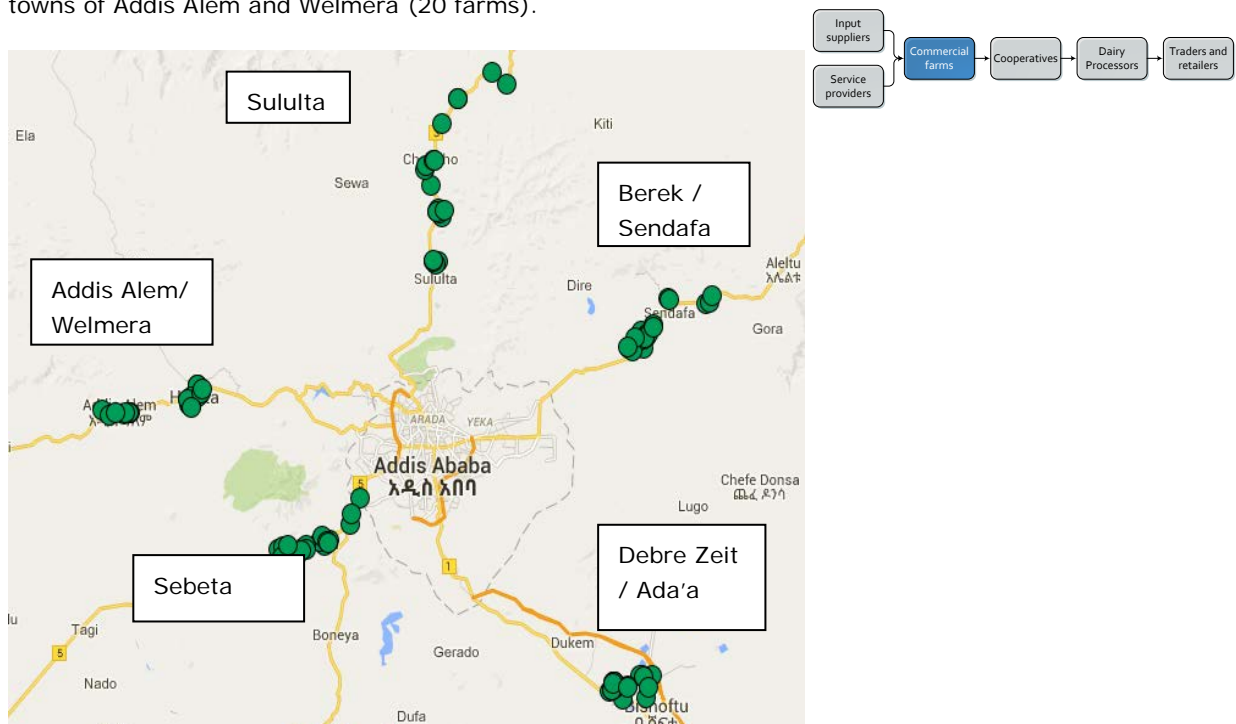


**Figure 4** Dairy value chain actors included in the study

### 2.1 Commercial dairy farms

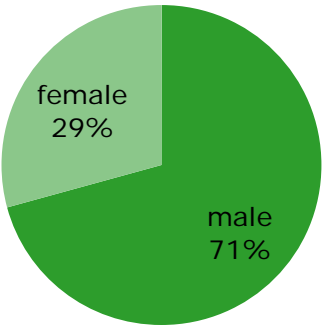
#### 2.1.1 Location

The 103 dairy farms that were interviewed are divided over 5 main areas around the cities of Sululta (21 farms); Berek/Sendafa (21 farms); Debre Zeit/Ada'a (20 farms); Sebeta town (21 farms), and the towns of Addis Alem and Welmera (20 farms).



**Figure 3** Location of farms

Gender of the farm owner

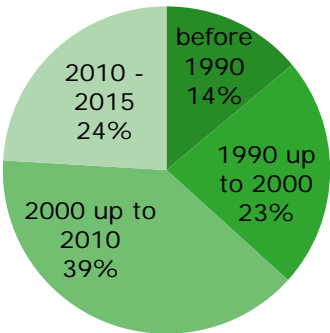


When we look at gender, we see that almost one third of the interviewees at the farms was female; presumably these were the (co-)owners of these farms.

The farms that were interviewed have on average between 6 and 7 employees (not counting one outlier farm with 300 employees, of whom 196 were women). Of these farm employees on average around 24 percent are women.

33 of the 103 farms have a permanent farm manager. In terms of education level, of these 33 farm managers 34 percent has no diploma, 27 percent has a diploma, 30 percent has a Bachelor’s degree, 6 percent a Master’s degree and 3 % (that is one farm manager) has a PhD.

Year of establishment of the farm



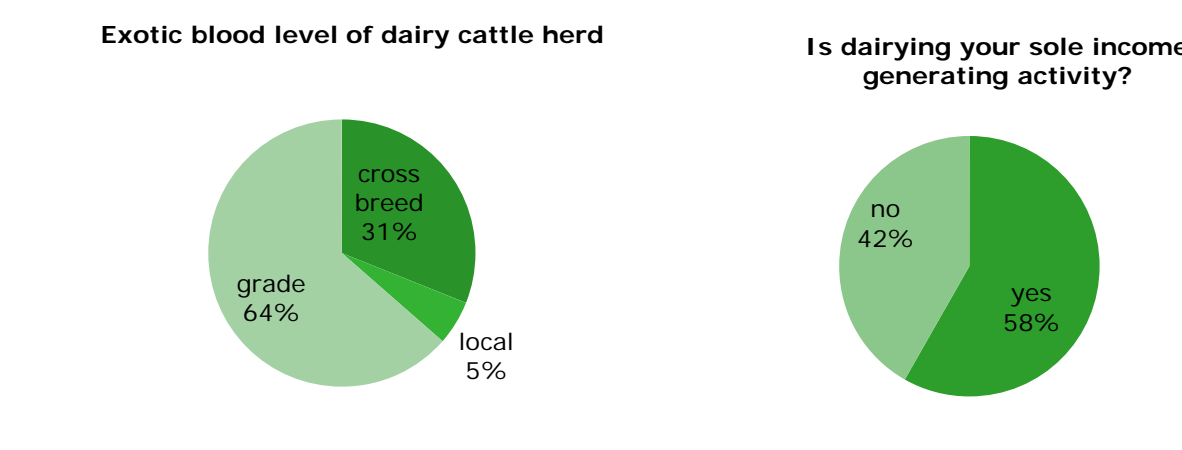
The farms interviewed have been established between 1948 and 2015. Most companies were established between 2000 and 2010 (39 percent), 14 percent of the farms has been established before 1990, 23 percent between 1990 and 2000, and 24 percent of the companies has been established over the last 5 years.

7 female calves
9 Heifers >1YRS
4 dry cows
17 milking cows
1 breeding bull

Figure 4 Average dairy herd size

On average the farms interviewed have a dairy cattle herd size of 38, which consists (on average) of 7 female calves, 9 heifers (>1 year), 4 dry cows, 17 milking cows and 1 breeding bull.

On average, of the farms' dairy cattle herd 64 percent of cattle is grade cattle, 31 percent cross-breed, and 5 percent local.

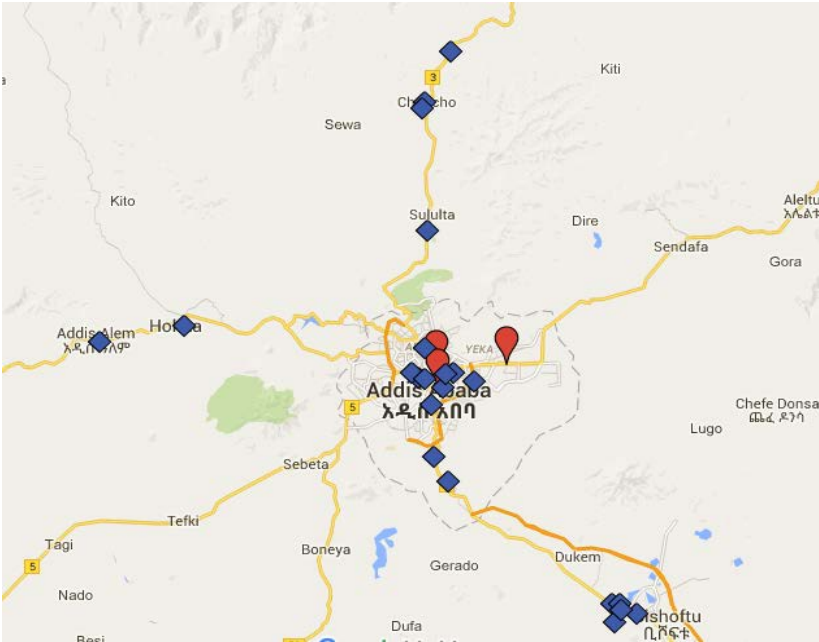


All farms that were interviewed are involved in milk production. 9 farms are also involved in milk collection and 10 farms work on milk processing. For 60 percent of the farmers, dairy is the sole income generating activity. For those farmers that have other income sources besides dairy, dairy accounts on average for 32 percent of their turnover.

## 2.2 Firms & advisors

### 2.2.1 Location

The 31 firms and advisors that were interviewed are divided over four main areas: Debre Zeit (5), Addis Alem/Holeta (2), Sululta/Chanco (5) and Addis Ababa (19). On the map the blue figures represent firms and the red pins advisors. The 5 advisors we interviewed were only asked general questions and questions about the advisor network and means of communication. The advisors were not interviewed about the dairy business platform. The firms that also offer advice, 18 out of 26, were asked these questions as well.

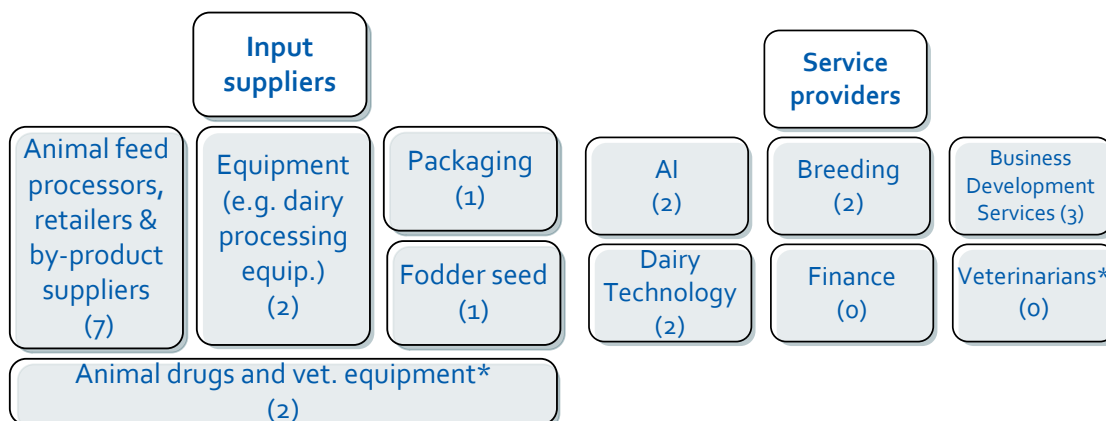


**Figure 5** Location of the firms and advisors

## 2.2.2 Firm details

The firms and advisors interviewed can be divided over different categories, namely input suppliers, service providers, cooperatives/unions, dairy processors, and traders and retailers. Within the category “input suppliers” we have talked to a total of 7 animal feed processors, retailers and by-product suppliers (by-products suppliers include flour, oil and beer factories). We have spoken to two equipment suppliers, one packaging company, one fodder seed supplier, and two animal drugs and veterinarian equipment suppliers.

Among the service providers interviewed two AI service providers, 2 firms working on breeding, 3 advisors and firms working on business development services, and 2 dairy technology consultants. Unfortunately we were not able to speak to any finance or veterinarian service providers in the time provided.



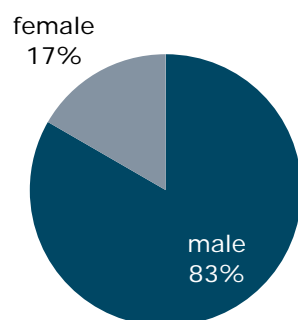
**Figure 6** Number of input suppliers and service providers per category

\*Animal drug & veterinary equipment suppliers are often veterinarians themselves and also provide veterinary services



The division among categories above is how we selected the firms. However, we also asked the firms to state in which categories their firms fit best. Often firms fall into different categories at the same time. A dairy processor might also collect the milk and sell feed to the farmers to supply the milk. The graph to the left shows in which areas the firms interviewed are active.

### Gender of the advisor/ manager of the firm



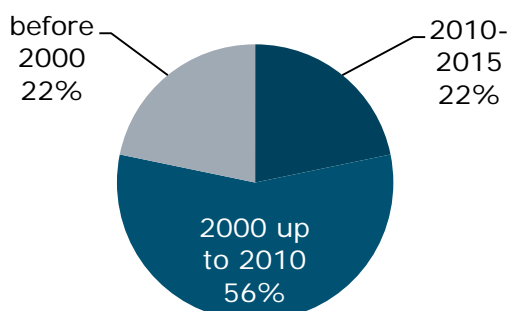
17 percent of the advisors and firm managers we spoke to were women. The average age of the advisor or firm manager is 43 years.

On average the firms (excluding the advisors) have 45 employees. Of these employees around 55 percent is women and 32 percent is between the ages of 16-25 years (youth).

In terms of education level, out of the 28 firm managers and advisors that responded to this question 10 percent had no diploma, 36 percent had a Bachelor's degree, 36 percent had a Master's degree and 18 percent had a PhD. In general firm managers and advisors have received a higher level of education than farm managers.

We have interviewed firm managers and advisors from different nationalities. Most were Ethiopian (26), 3 were Dutch and 1 was Italian.

### Year of establishment of the firm



The firms and advisors have started their businesses between 1964 and 2013. Most companies were established between 2000 and 2010 (56%), 22 percent of the companies is older than 15 years and 22 percent of the companies has been established in the last 5 years.

For the input suppliers and service providers we asked: "To what kind of customers do you supply your inputs/services?" Most firms (13) supply to medium scale dairy farms (10-25 cows), followed by small scale dairy farms (<10 cows) (12), NGOs (11), government organisations (10), large scale dairy farms (>25 cows) (10) and retailers (7).

---

**Box 1 Overview of the products and services supplied by the firms interviewed****Dairy products**

Provolone Cheese, Fontina Cheese, Mozzarella Cheese, Ricotta Cheese, Cooking Butter, Yogurt, Smoked Cheese, Feta Cheese, Cottage cheese, bread butter, cream, raw milk, cooling butter, table butter, pasteurized milk.

**Inputs**

Hay, yoghurt cups, genetic materials (semen), noug cake (by-product of oil), calf rearing pellet, heifer feed, dairy basic feed, dairy excellent feed (for crossbreds with high blood level), dairy super feed (highest production), heifers, fodder seed, milking machines, milk processing machines, lacto scans, cream separators, milk buckets, milk cans, butter churners, measurers, AI guns, ear tags, thermos flasks, nitrogen containers, AI sheaths, applicators, lactometers, brewers waste, wheat bran, vaccines, drugs, veterinary equipment.

**Services**

Capacity building and trainings, feed processing, feasibility studies, business plans, value chain analysis and development, animal treatments, in-house trainings for dairy farmers.



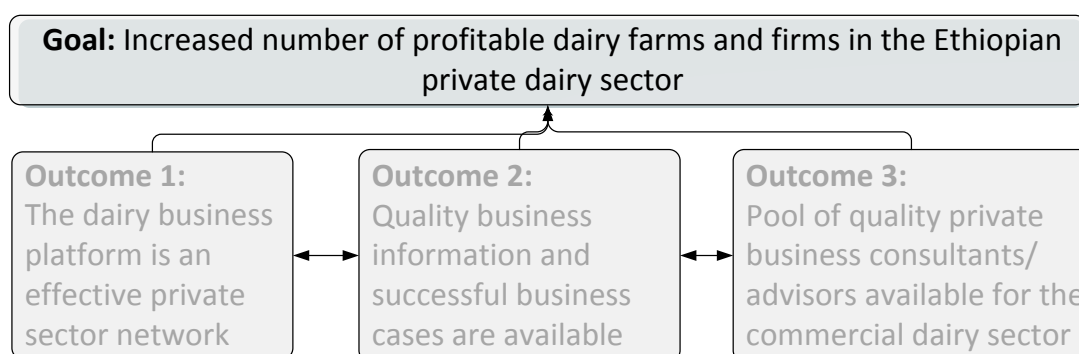
### 3 Impact level: profitability of farms and firms

The goal or impact that the DairyBISS project sets out to achieve is to increase the number of profitable dairy farms and firms in the Ethiopian private dairy sector. At this level, the baseline looked at the following questions:

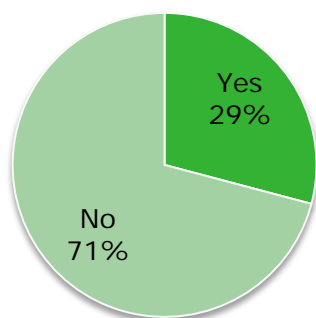
*"To what extent are the farms and firms that enter the project profitable?"*

- *This will be a rolling baseline. From the farms that were interviewed, several will be selected for the pilot private advisory services and in this way participate in the project. For the firms, it is still unclear which firms will participate in what way in the project. For the interviewed firms we have tried to obtain baseline information on their current turnover and profit.*

*To what extent do farms and firms make use of business information and advice to improve their profitability?"*



**Rates of Firms keeping Costs/turnover records**



#### 3.1 Using Advice and Business information to improve profits

The strategies of the DairyBISS project are based on the assumption that good quality advice and business information are important for firms and farms in the commercial dairy sector in Ethiopia to improve their profits. Therefore we will explain shortly what we mean with advice and business information and look into whether firms and farms are currently using this to improve their profits.

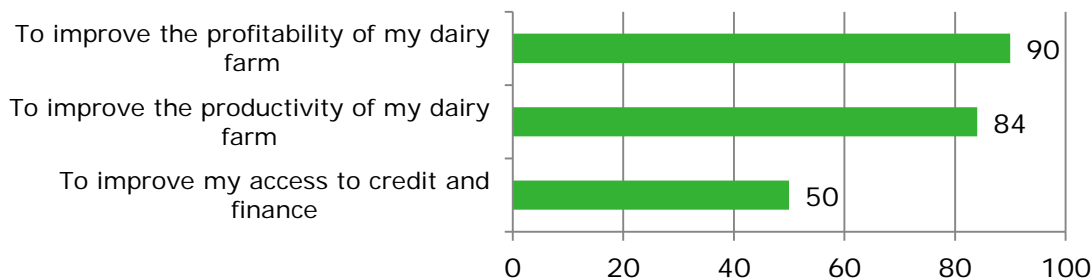
We consider **advice or advisory services** to include advice on a variety of topics that can be useful for farms and firms, including but not limited to: AI, feeding, business development services, financing and milk quality.

We consider **business information** to include among others information on product marketing and development, market outlooks, financing, information on regulation and standards. Business information can come from different sources. One of the sources can be an advisor (e.g. a business development or financing advisors) but can also come from internet, magazines, radio and other media.

**Farms**

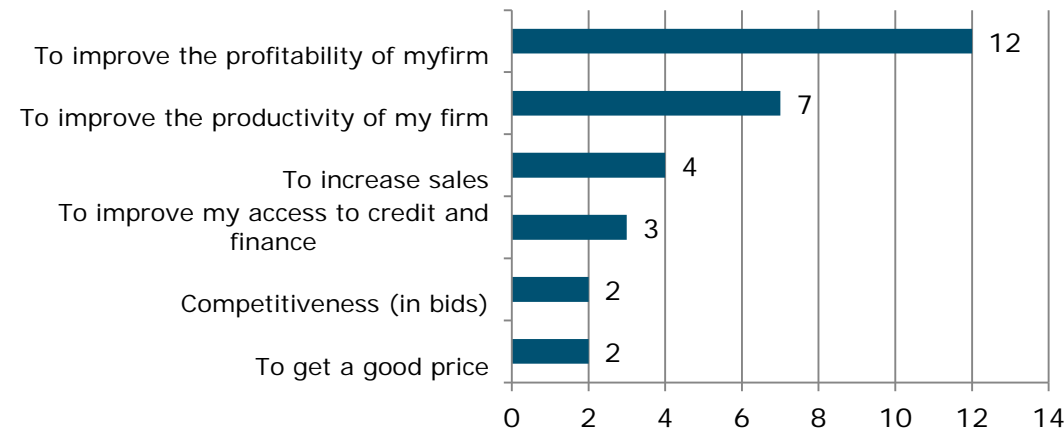
Benefits and gains from using **advisory services** will further be discussed in chapter 5.

Farms use **business information** for improving the *profitability* of their dairy farms (90) (through improving e.g. sales and competitiveness), but also the *productivity* of farms (84).



**Firms**

Benefits and gains from using **advisory services** will further be discussed in chapter 5. **Business information** is mostly used to improve the profitability (12) or productivity (7) of the firm.



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## 3.2 Turnover and profits

The majority of the farms, 71 percent, indicated that they do not keep cost and turnover records.

Of the 30 farms that do keep records, 7 farms did not share their financial information. Of the 23 remaining farms that did share their financial information on 2014:

- The average turnover from the dairy farms that made a profit was 408,673 BIRR, excluding the outlier that had a dairy turnover of 24,75 million BIRR.<sup>1</sup> This means that for the 16 farms the average profit margin was 35 percent;
- 7 farms reported to incur a loss from their dairy activities of 321,786 BIRR on average. 16 farms made a profit of on average 142,990 BIRR from their dairy activities, excluding one outlier of 22.95 million BIRR.

During the validation workshop attendants indicated that the profit margin of commercial dairy farming is low and that it is hard to make a profit in dairy farming in Ethiopia. This may explain why 71 percent was not able or willing to give information on this subject.

### **Farms' turnover and profits**

The majority of the farms, 71 percent, indicated that they do not keep cost and turnover records.

Of the 30 farms that do keep records, 7 farms did not share their financial information. Of the 23 remaining farms that did share their financial information:

- 7 farms seem to have an average loss from their dairy activities of 321,786 BIRR;
- 16 farms made a profit of on average 142,990 BIRR from their dairy activities in 2014, excluding one outlier of 22.95 million BIRR. In 2014 the average turnover from the dairy farms that made a profit for the farms was 408,673 BIRR, excluding the outlier that had a dairy turnover of 24,75 million BIRR.<sup>2</sup> This means that for the 16 farms the average profit margin was 35 percent.

During the validation workshop attendants indicated that the profit margin of commercial dairy farming is low and that it is hard to make a profit in dairy farming in Ethiopia.

As only 23 farms shared their turnover and costs with us and this information was not checked with financial reports, this information does not tell us much yet about the average profitability of dairy farming. Once farms are selected to participate in the project, through e.g. the private advisory services pilot, more detailed information on their financial situation will probably become available to better track the changes in profitability.

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<sup>1</sup>This is the number that the outlier farm reported, though it seems unlikely that their profit margin was indeed 92.7percent .

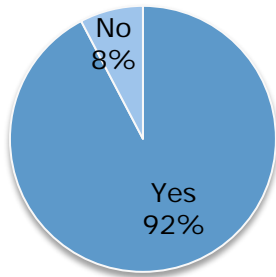
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### Firms' turnover and profits

Of the firms interviewed, 16 of the 26 were able to provide us with figures on the profit that they earn from dairy related activities. Not all were willing to share their financial information with us and some were not able to share the profit from dairy specifically.

#### Is your firm profitable?

[self-reported profitability]  
n=26



For the 16 firms that did provide financial figures, the average turnover from dairy was 13,244,687 BIRR in 2014, ranging from 3000 BIRR to 140 million BIRR. The average reported profit from dairy was 1,096,758 BIRR, including two outliers of 5 and 8 million BIRR and three firms that break-even.

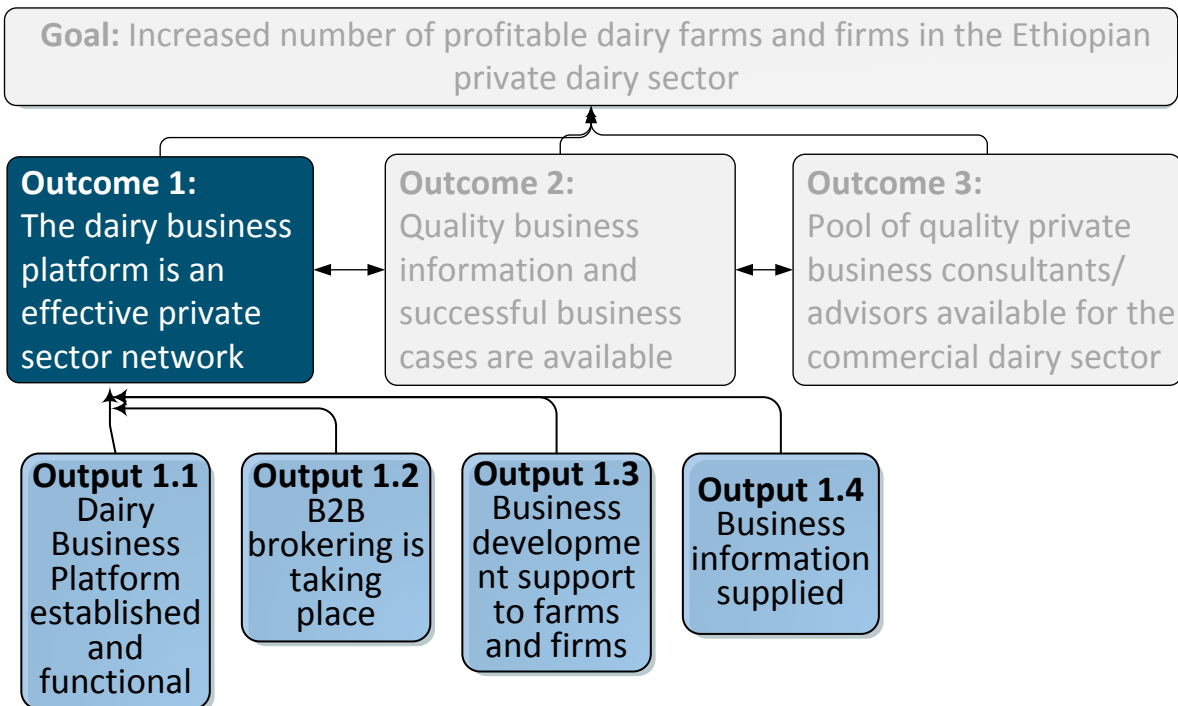
When looking at the average profits and turnover rates from dairy, the average dairy profit margin would be 8,3 percent for the 16 firms that reported their financial information.

We asked all the firms if they considered their firm to be profitable – this rendered a higher response rate (100%) than asking for profits from dairy. 92 percent of the firms indicated that their business was profitable (self-reported profitability).

## 4 Strategy 1: Development and support of Dairy Business Platform

Developing and supporting a Dairy Business Platform is one of the strategies that the DairyBISS project will apply in order to improve the profitability of farms and firms in the private dairy value chain. The baseline for this strategy looks at the following main research question:

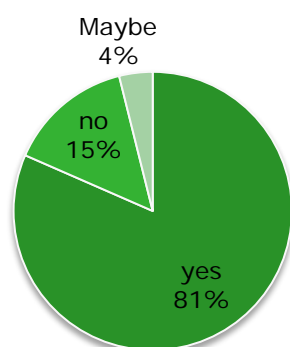
*“What is needed according to potential members to make the dairy business platform an effective private sector network?”*



## 4.1 Dairy business platform

### 4.1.1 Interest in platform and who can join

**Would you like to join the Dairy Business Platform?  
[farms]**

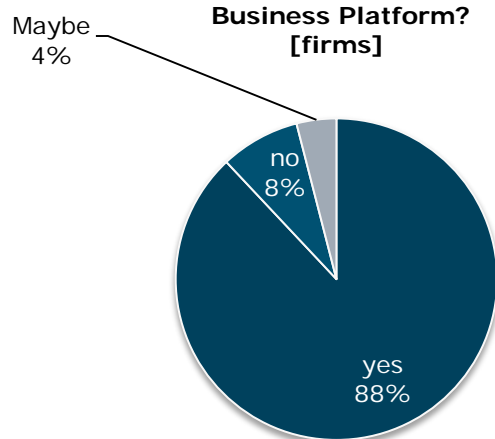


81 percent of the 103 farmers interviewed showed an interest to join the Dairy Business Platform. 4 percent said maybe.

22 of the interviewed 26 firms were interested to join the platform, that is 88 percent. 4 percent said maybe.

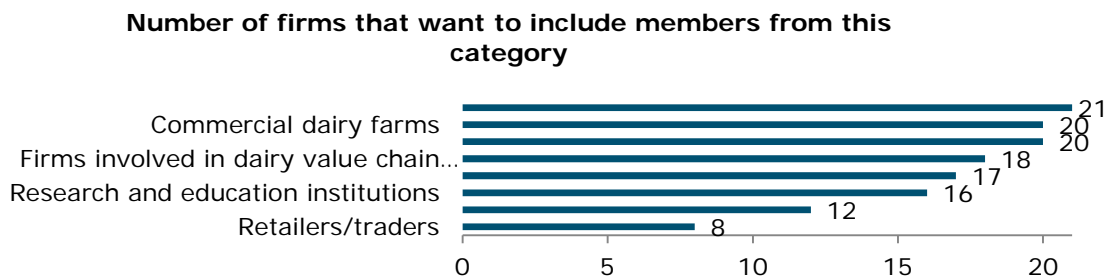
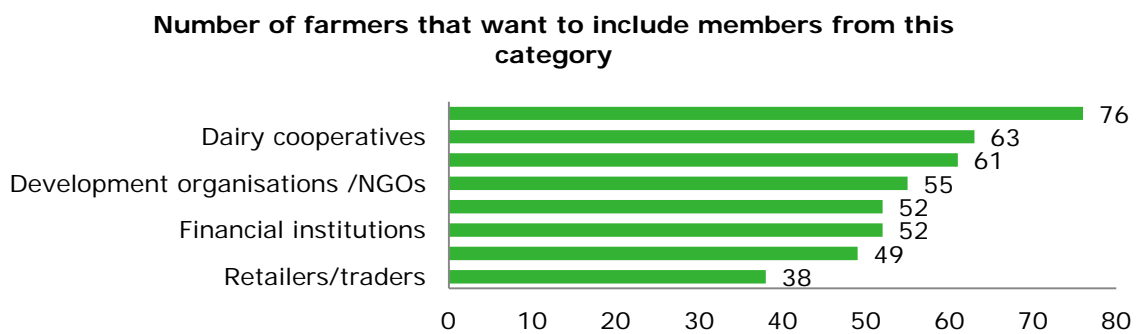
To all those that answered 'yes' or 'maybe' we then proceeded to ask a series of questions on how this platform should look like, starting with who should be able to become a member.

**Would you like to join the Dairy Business Platform?  
[firms]**



Most farmers want to include members from commercial dairy farms (76), dairy cooperatives (63), and firms involved in the dairy chain (including input and service suppliers and dairy processors) (61). Least mentioned by farms are research and education institutes (49) and retailers and traders (38).

Firms most often mention government organisations (21), commercial dairy farms (20), dairy cooperatives (20) and firms involved in the dairy value chain (18). Least mentioned are financial institutions (12) and retailers and traders (8).



Thus, almost all respondents from the firms and farms revealed the importance of including all actors along the value chain. Few respondents from the firms indicated that the involvement and role of government institutions in a private business platform would not be significant.

We asked both farms and firms whether there should be criteria for becoming a member of the platform. 55 percent of the 84 **farmers** that answered this question said that criteria should be used to select the members of the platform. Here are the criteria they mentioned:

- Role in the sector/contribution to the sector (14);
- Their business standard (10);
- They need to have dairy cattle (5);
- Experience and background (4);
- Knowledge (about dairy) (3);
- Should all be dairy farms (3);
- Practical dairy owners (3);
- Based on their long term business plan (growth) (3);
- Capacity of ownership (1);
- Good quality dairy (1);
- Good quality personnel (1);
- Common needs and willingness to cooperate (1);
- Based on membership fee (1).

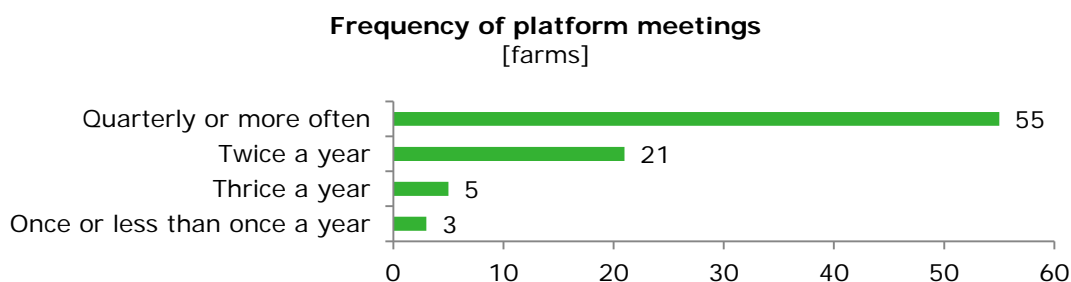
61 percent of the 23 **firms** that answered this question said that members should be selected for the platform based on a set of criteria. Here are the criteria they mentioned:

- Dedication/ time investment / commitment to the sector (4);
- Capacity (3);
- Based on their performance (2);
- Exclude smallholders (only through dairy cooperatives) (1);
- Practical interest in the sector (1);
- Include all value chain actors (1);
- Mandate to share responsibility (1);
- Their position in their organisation (1);
- Medium scale companies who have interest but problems in finding finance (1);
- Market share and linkages (1).

#### 4.1.2 Frequency, level and location of meetings

The farms and firms that are or might be interested to join the Dairy Business Platform were asked questions about the desired frequency, level and location of the meetings of the platform.

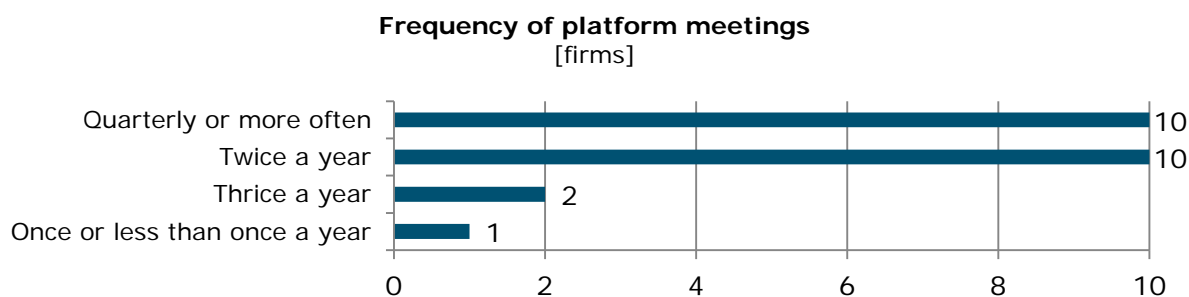
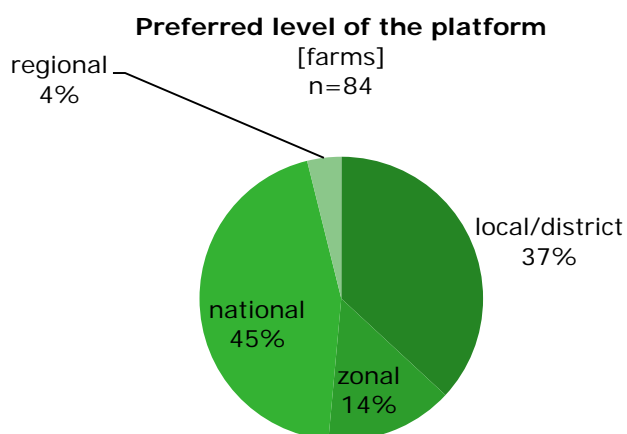
Most **farms** (55) prefer to have meetings every three months, followed by twice a year (21). Firms also prefer quarterly (10) or biannual (10) meetings.



Some **firms** mentioned that in the first year the platform should meet often, but that once it is established yearly meetings would be sufficient.

Most **farms** (45 percent) prefer the platform to be at a national level, followed by local/district level (37 percent).

**Firms** have a clear preference for national level: 63 percent, followed by regional (17 percent). Some firms mentioned that it would be good to start at a national level and then later on develop regional/local chapters of the platform.

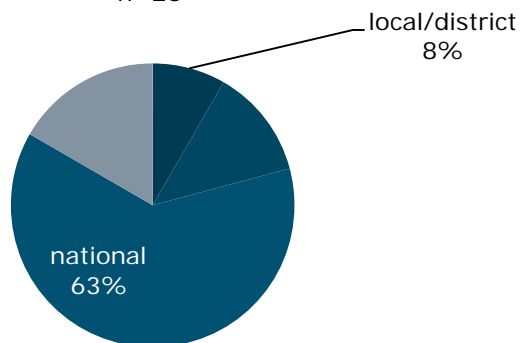




### Preferred level of the platform

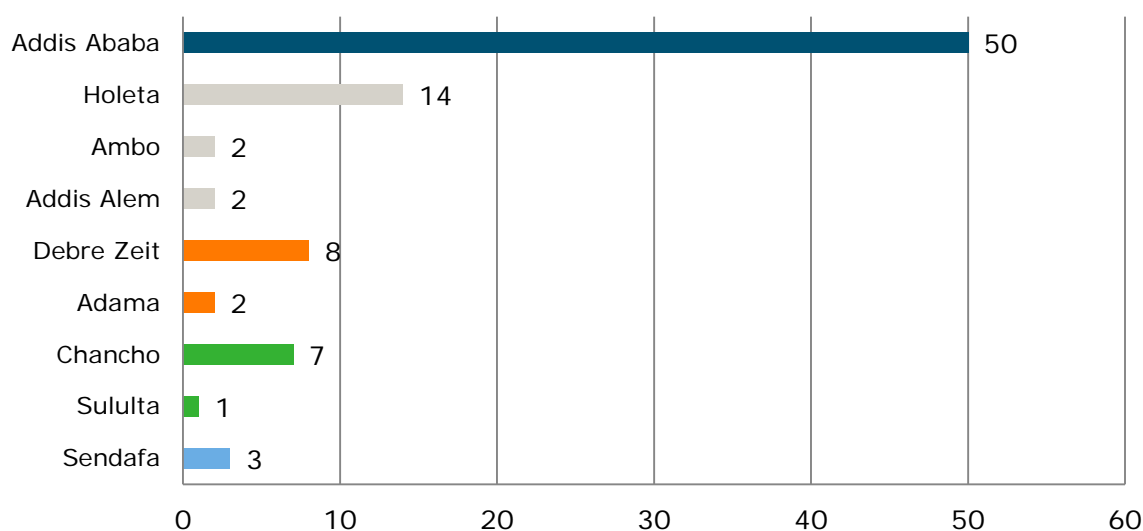
[firms]

n=23



For the location of the meetings, **farms** prefer Addis Ababa (50 out of 103), but have also mentioned various other cities. In the figure below these are grouped in colours according to proximity, which might later on help in forming local chapters of the platform

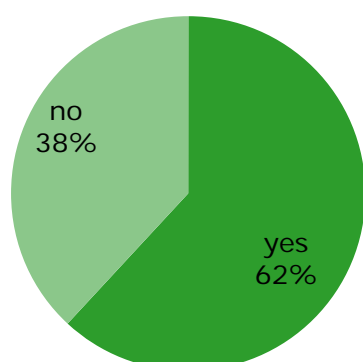
### Number of farms that prefer this city for platform meetings



Most **firms** (18) believe Addis Ababa is the best location for the platform meetings. Some firms suggested making it rotational between zones/cities – basing this on the issues to be discussed. Others suggested starting the platform in one area so that it can be replicated in other areas later.

### Are you willing to pay for membership?

[farms]



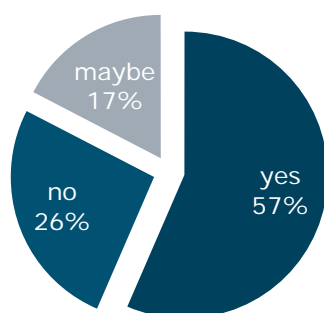
#### 4.1.3 Payment

As the objective is to have a Dairy Business Platform that serves as an effective private sector network but that also is sustainable, that is, should be able to continue to exist without the project's support, we asked firms and farms if they are willing to pay for platform membership.

62 percent of the farms is willing to pay for membership, while 57 percent of the firms is willing to pay for membership. As the survey of firms took place later, the answer category "maybe" was added for those firms that might want to contribute but have some conditions. 17 percent of the firms may want to contribute – that makes a total of 74 percent of firms that do or may want to pay for membership.

Most firms indicated that they will be willing to pay once pay-offs of being a member become clearer.

**Are you willing to pay for membership?**  
[firms]



We also asked them about how they would prefer to pay: have a low membership fee with paying separate for trainings, meetings etc.; or have a higher membership fee that includes all, a so-called flat rate. Most farms (80 percent) preferred the lower rate. Some firms indicated that it is better to have a flat rate, that maybe would be a bit higher, to ensure that everyone can and will participate in the platform's activities. To make sure that it is still affordable membership fees should be differentiated according to business size.

Of those who want to and are able to pay, the majority of firms (86%) and farms (90%) would pay less than 2000 BIRR per year.

#### 4.1.4 Expectations from the platform

We asked both farms and firms what they expected to be the benefits of becoming a Dairy Business Platform member. They could choose multiple out of a list with 7 options for farms and 8 options for firms.

##### **Farms**

The expected benefits that farms chose are listed below ordered by frequency:

1. Share experiences (78 farms);
2. Learn new technologies and innovations (63 farms);
3. Share business information (62 farms);
4. Link with various actors (62 farms);
5. Networking (35 farms);
6. B2B relationship brokering (7 farms);
7. Business development support (e.g. business plans reviews) (7 farms).

## Firms

The expected benefits that firms chose are listed below ordered by frequency:

1. Networking (17 firms);
2. Share experiences (15 firms);
3. Share business information (14 firms);
4. Learn new technologies and innovations (13 firms);
5. Lobby & advocacy (11 firms);
6. B2B relationship brokering (10 firms);
7. Link with various actors (9 firms);
8. Business development support (e.g. business plans reviews) (8 firms).

The most important benefits mentioned by both farms and firms are to share experiences and business information, to learn about innovations and new technologies, and to link with different actors (including meeting new clients).

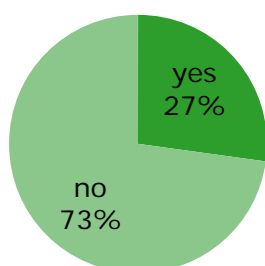
Though we only asked firms about lobby and advocacy as a benefit of the platform, we did ask farms and firms whether they would like the platform to have policy leverage. 78 out of the 88 farms that were interested in the platform want the platform to influence policies, while 22 out of the 23 firms that were interest in the platform want this.

### 4.1.5 Communication within the platform

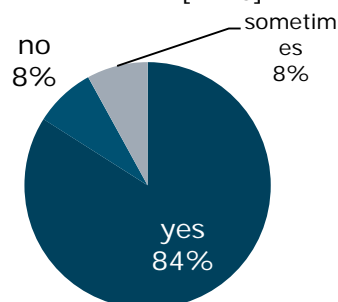
For a well-functioning and active Dairy Business Platform we need to use communication channels and media that the members have access to and provide them with the information they are interested in.

First of all, when deciding on how to communicate, it is important to which communication channels are used by farms and firms in their daily activities. For this it is important to take into consideration that 73 percent of the farmers interviewed do not have access to internet. For firms this is much lower at 8 percent, where 84 percent have access to internet and 77 percent of them access internet on a daily basis.

**Do you have access to internet?**  
[farms]



**Do you have access to internet?**  
[firms]



#### Preferred way of communication within the platform:

##### Farms

1. Face-to-face meetings/visits (80)
2. Technical reports (53)
3. Facebook (44)
4. Short visualized version of reports (31)
5. ResearchGate (30)
6. Radio (27)
7. Dairy Business website (25)

##### Firms

1. Face-to-face meetings/ visits (16)
2. Network newsletter (6)
3. Television (5)
4. Dairy Business website (4)
5. Technical reports (4)
6. Facebook (3)

---

For both farms and firms, face-to-face meetings and visits are the preferred way of communicating within the platforms. Both farms and firms mentioned technical reports, Facebook and a DairyBISS website – even though farms have little access to internet.

During the validation workshop attendants added that in addition to the list of communication channels listed, telephone calls, exhibition and trade fairs and organising milk days would be good ways to ensure interaction within the platform.

Some examples of what farms and firms would like to see communicated within the platform:

What should be communicated?	
Farms	Firms
1. Dairy farm management (27)	1. Market information (10)
2. Dairy Product development and marketing (10)	2. Business information (5)
3. Dairy technology / technical information (7)	3. Share experiences & ask questions (2)
4. Animal health and welfare issues (3)	4. Contact list
5. Feed resource and quality, feeding (3)	5. Current activity of dairy projects
6. Breeding issues (2)	6. Calendar of activities and events of dairy platform
7. How to increase cow productivity and improve profits	7. Project reports
8. Business information	8. Price and availability of dairy equipment
9. Share experiences	9. Scientific discoveries in dairy sector
	10. Link to potential clients
	11. Bid notices

## 4.2 B2B brokering

Business to Business (B2B) relationship brokering is one of the expected benefits of the Dairy Business Platform, but as such it was not mentioned by many farms (7) and firms (10). However, for many firms "linking with various actors" and "networking" also means linking to other businesses and meeting new business clients. Some examples: a feed company would like to connect with new commercial farms that are interested in buying feed; a packaging company is interested to link up with dairy processors who can become their clients; international B2B brokering might be needed as well, as an animal drugs company indicated to be interested to import animal drugs from the Netherlands.

How have B2B brokering and trade missions in dairy taken place until now? If we take a look at the Netherlands Africa Business Council (NABC), they have a long history in strengthening relations between companies in Ethiopia and the Netherlands. In the dairy sector they work together with the Agri-Business Support Facility (ABSF) Program, under the Addis Ababa Chamber of Commerce. On dairy, NABC has published a quick-scan report on the Ethiopian sector, which was an important input for the Business Opportunities Report of the DairyBISS project.

NABC has organised Dairy Trade Missions for Dutch companies to Ethiopia in 2014 and 2015:

- Ethiopian Dairy Trade Mission to Ethiopia: 23-27 February 2014;
- Dairy Processing Trade Mission to Ethiopia 26-30 April 2015 - In collaboration with Agribizz.et and ABSF, this mission focused on quality testing, milk processing, packaging, cooling and logistics, distribution etc. This mission included bilateral tailor-made meetings and visits and matchmaking sessions.

NABC and ABSF are thus well connected in the Ethiopian dairy business sector. Collaboration with the DairyBISS project (or in particular the Dairy Business Platform), through sharing of information and contacts could be very useful to further develop the B2B brokering element of the platform.

## 4.3 Business development support and business information supply

First of all, business development support is one of the types of advice that we have asked farms and firms about. We asked about the availability, need, and willingness to pay for business development support. This will be further discussed in sub-chapter 5.2 on private advisory services.

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In this sub-chapter we will focus on which current sources of business information are used by farms and firms, what are the barriers they encounter in getting the information they need, and what are the communication channels that the DairyBISS project should use.

#### 4.3.1 Current sources of business information

If we want to know how we should supply business information to the members of the Dairy Business Platform, it is important to know which sources they currently use for getting this information.

##### **Farms**

In order of importance, farms answered this question as follows:

1. Informal face-to-face with peers (67 farms);
2. Meetings (50 farms);
3. Seminars (34 farms);
4. Radio (30 farms);
5. (Mobile) phone (including calls) (26 farms);
6. Field visits (19 farms);
7. Expert networks (18 farms);
8. Consultants (18 farms);
9. Internet / social media (17 farms);
10. Magazines (8 farms);
11. Digital newsletters (5 farms).

##### **Firms**

In order of importance, firms answered this question as follows:

1. (Mobile) phone (including calls) (8 firms);
2. Internet / social media (7 firms);
3. Informal face-to-face with peers (6 firms);
4. Field visits (5 firms);
5. Expert networks (2 firms);
6. Digital newsletters (2 firms);
7. Meetings (1 firm);
8. Seminars (1 firm);
9. Radio (1 firm);
10. Consultants (1 firm).

While informal face-to-face meeting with peers and phones are important sources of business information for both farms and firms, internet/social media and field visits are relatively more important for firms than for farms. It can also be noted that farms make more use of meetings, seminars and radio than firms.

#### 4.3.2 Current barriers to business information

The most important barriers that **farms** encounter in getting business information are awareness (knowing what is out there), communication (receiving the information), shortage of information, and lack of attention for business information for the dairy sector (from the government). While **firms** also mention the communication and availability problem, for them the most important barrier is that there is no organised body responsible for providing reliable and up to date business information on dairy. The DairyBISS project can work on these barriers and also look into making information more accessible, letting the platform (as dairy business network or information network) be the organisation that works on business information and training of experts and advisors to share this information.

#### Barriers to getting business information that farms need

- Awareness (14);
- Communication (11);
- Availability/shortage of information (9);
- There is no attention (from government) (8);
- Accessibility of information (7);
- There is no organisation that works on business information (6);
- Shortage of skilled/trained personnel / availability of experts and advisors (7);
- Failure (of products) (6);
- Lack of information network (5);
- Producers are not united / cannot influence the government (2);
- Lack of dairy business network (4);
- Market(ing) problem (4);
- No access to technology (2);
- Training needed on dairy management and marketing (2);
- Finance (1);
- Distance of feed resource (1);
- There is no objective of profit (1);
- The system is not customised (1);
- Government rules (1);
- Problem with concerned office in the woreda (1).

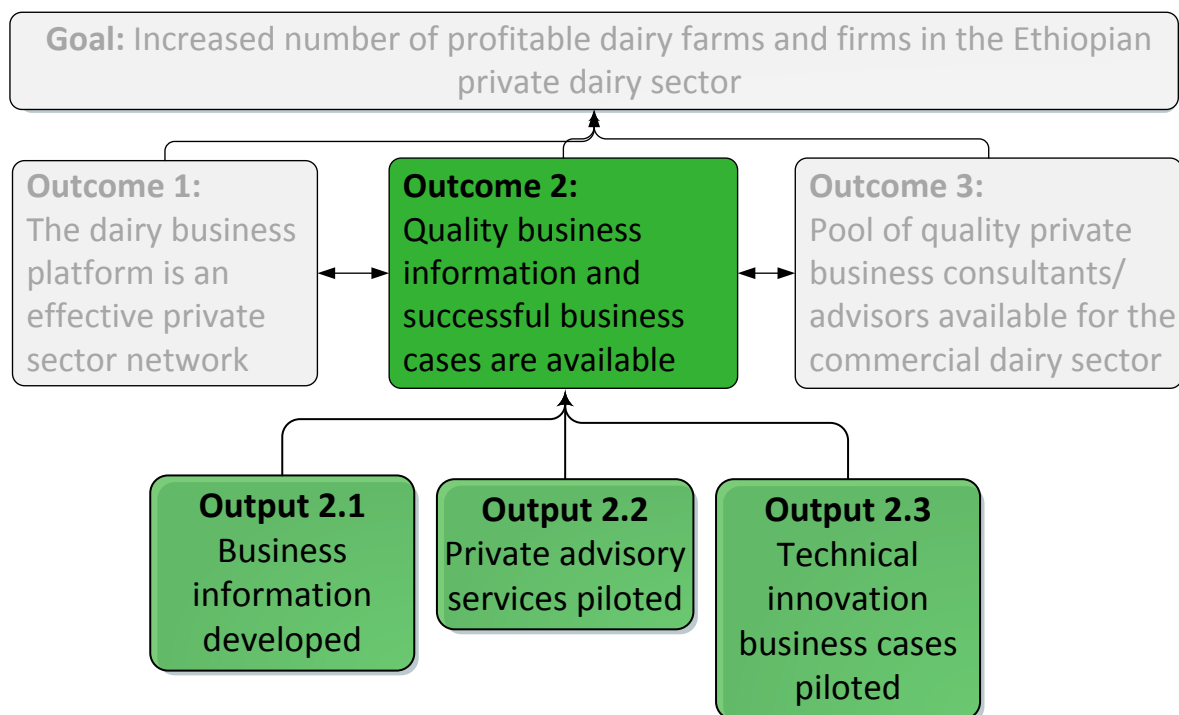
#### Barriers to getting business information that firms need

- There is no organised body responsible to deliver this information for dairy (5);
- There are no reliable sources of information (2);
- No communication on business information (2);
- Lack of access (2);
- No advisors available (1);
- Living far away from major market (1);
- Costs (1) (good marketing people are too expensive to hire);
- Information is not organised (1);
- Information is not updated (1);
- Not connected to modern information technology (1);
- Do get business information from the Netherlands because not available in Ethiopia (1);
- There is a gap between education and experience of trainers from e.g. chamber of commerce on business information (1).

## 5 Strategy 2: Business information & advice

Making sure that quality business information and successful business cases are available is the second strategy that the DairyBISS project will apply in order to increase the number of profitable dairy farms and firms in the Ethiopian private dairy sector. The baseline for this strategy looks at the following main research question:

*"To what extent is the business information and advice that is needed by the farms and firms currently available and of quality?"*



### 5.1 Business information developed

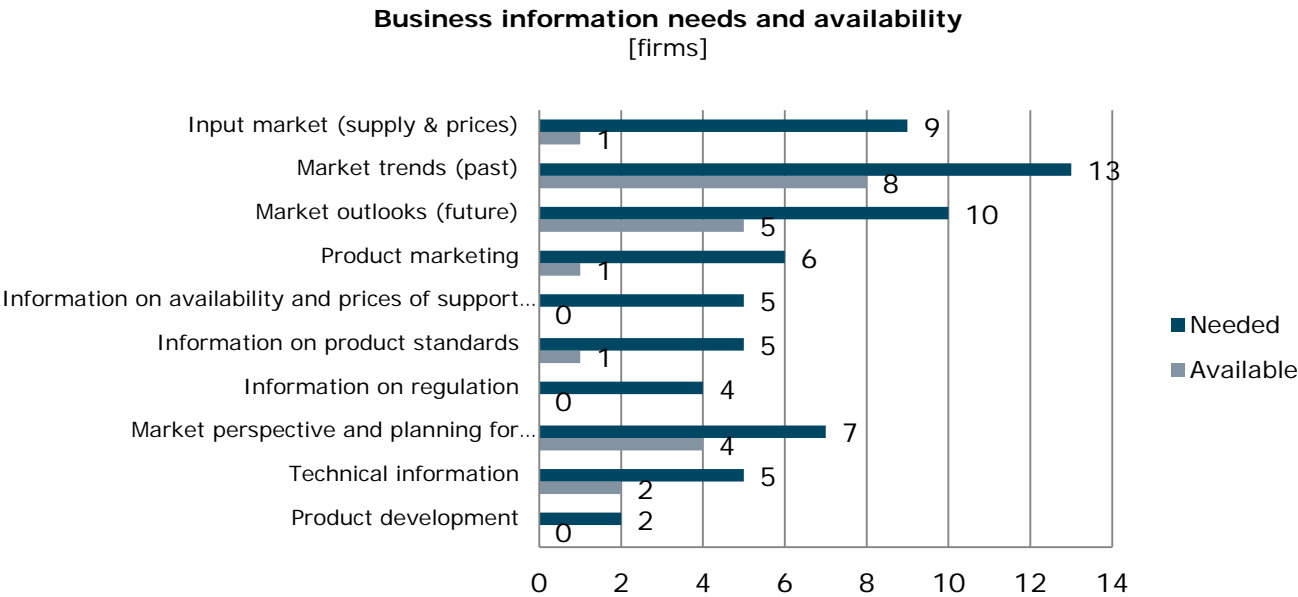
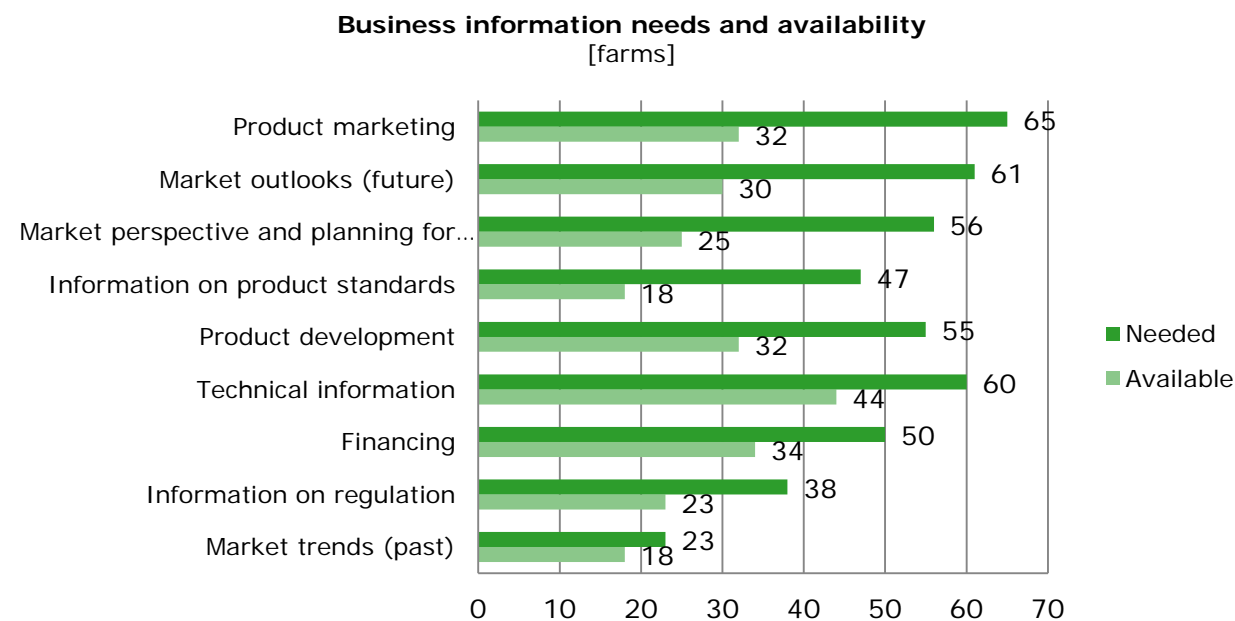
For the output "business information developed" we will first look at what information is needed, which was one of the focus areas of the baseline study, and secondly look at how this business information can be developed, e.g. through the Business Opportunities Report (BOR) and a student internship programme.

#### 5.1.1 Developing business information that is needed

Here we will look at what kind of business information is needed and is available, how it is used currently, what the quality is and how this should be improved.



For both farms and firms there are gaps between the kind of business information that is needed and what is actually available. For farms the biggest gaps are in business information on product marketing; market outlooks; market perspective and planning; and product development. For firms the biggest gaps between what is needed and what is available are in: market information on supply and prices of inputs; market trends; market outlooks; product marketing; and information on availability and prices of support services like logistics.



Business information is used most for: improving profitability and productivity of farms and firms (through improving e.g. sales & competitiveness)

Example from an animal drug supplier:

“Communication of business information on drug supply should be improved. For instance, I came to Addis Ababa to buy drugs from wholesalers and I don't have reliable information on where it is sold. So I am forced to visit many suppliers in different parts of town and waste three or more days on finding the right animal drugs.”

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Currently 62 percent of the firms and 66 percent of the farms perceive that the business information that is currently available is not of sufficient quality. For those farms and firms that do think the business information is of quality, we have asked them what quality entails for them. For them, business information is of good quality when:

1. It improves the production, productivity and profitability of the farm (8);
2. It is realistic (7);
3. It is practical and applicable (5);
4. It is up to date (2);
5. It helps to produce market oriented and competitive dairy products (5);
6. It leads to improved product quality and standards (5);
7. The experience and knowledge of the trainer is good (1);
8. It gives information on source and quality of feed (1);
9. It gives information on AI and health (1);
10. It's easy to access against low costs (1);
11. It gives us actual information on the number of customers and the capacity of our competitors (1).

We have also asked what should be improved in the available business information in order to increase the quality. According to **farms**, in order to improve the quality of business information we should:

1. Improve its availability (9);
2. Include market trends & marketing systems (7);
3. Include advisory services (4);
4. Improve the quality of trainers and training (8);
5. Be more continuous (7);
6. Be organised through a network (5);
7. First work on awareness creation (2);
8. Come from well-known institutions (1);
9. Be realistic (3);
10. Be accessible (3);
11. Improve the communication on business information (3).

**Firms** say that business information should:

1. Be more reliable (4);
2. Be more recent (3);
3. Be more accessible (3)
4. Be more practical (1);
5. Have formal communication (1);
6. Be given more attention by the government, especially for this sector (1);
7. Have a more continuous source (1);
8. Come from a well-established responsible body (1);
9. Be more available (1);
10. Be available on foreign exchange (1);
11. Include firm based plan information (1);
12. Include access to Growth and Transformation Plan (1);
13. Include records of private companies in a data base (1).

#### 5.1.2 How to develop business information that is needed?

Here two ways of developing business information that is needed will shortly be discussed. First of all, around the same time that the baseline study was conducted a study on business opportunities in the dairy sector took place. Secondly, a student internship program is part of the DairyBISS project as a way of developing business information.

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#### 5.1.2.1 Business opportunities report

One of the ways to develop business information is through preparing a business opportunities report. In August – September 2015 interviews were conducted in the light of developing a report on business opportunities for Dutch investors in the dairy sector in Ethiopia (Zijlstra et. al., 2015).

What follows is the list of opportunities for trade and investments in dairy production, business development services, and dairy processing and marketing that the report identified. While not strictly part of the baseline, we value this additional information as relevant baseline information.

##### Opportunities dairy farm production

- Commercial feed and fodder production: High prices for fodder and concentrates, available agro-food industry by-products and low yields of grass and fodder crops offer opportunities to contribute to more feed and fodder of a higher quality to improve dairy production levels;
- Specialized fodder producing farms;
- Feed mills that produce concentrates;
- Seed companies that offer new fodder crop and grass varieties.
- Supplying young stock: The need for better calf rearing and scarcity of dairy heifers can be solved by better feed for young stock and by establishing specialized heifer rearing farms;
- Feed for calves;
- Heifer rearing farms.
- AI services and upgrading genetics: Improved AI services, better genetics, and more advice on breeding plans and recording schemes will help to efficiently transform the national herd towards a higher productivity level;
- Establish private AI services
- Support in optimizing AI services;
- Training of technicians and improvement of logistics of semen;
- Develop and implement national or regional breeding strategy;
- Establish breeding farms in regions;
- Import of animals or genetic material.
- Health: Improving health and privatization of veterinary services are focus areas of the Ethiopian government;
- Establish mobile veterinary clinical services;
- Support government in disease control programs.
- Cattle housing design: Free stall barns with natural ventilation will give cows more exercise and will contribute to better health;
- Farm equipment for milking and harvesting: Small scale milking machines, stainless steel milk cans and buckets are highly appreciated.

##### Opportunities in dairy processing

- Processing plants: Milk processing is booming in Ethiopia and offers investment opportunities abound. The real challenges behind investments in processing are (1) assuring the supply of high quality raw milk, and (2) offering quality products to retail;
- Cold chain logistics and storage equipment: Improvements in the cold chain will contribute to better quality dairy products;
- Offer bulk milk tanker transport equipment;
- Offer milk chilling equipment for milk collection centres;
- Offer milk chilling tanks for processing industry.
- Build up service organisation for maintenance of dairy equipment, to serve dairy processors across (one or more) milksheds in Ethiopia;
- Dairy technology and product development: Many new dairy processing plants will benefit from increasing experience and know how about dairy processing technology and product development.

##### Opportunities business development and financial services

- Business development advice: Many of the present farms and processing companies perform sub optimally. Advice by skilled consultants can contribute to better return on investment when developing new enterprises and when optimizing existing farms and processing plants;

- Financial services: Farmers as well as processors are facing problems in collecting funds and loans to cover their investments. A bank with expertise can make the difference;
- Technical support in controlling animal diseases: The health status of livestock can benefit from expert input in the fields of animal identification and surveillance systems, vaccination programs, and biosecurity systems.

### 5.1.2.2 Student internship program

This program is designed to facilitate knowledge transfer between Ethiopian and Dutch universities and dairy farms through conducting action research and in this way developing business information. The student internship program enhances the innovation and case studies of dairy production through linking research with innovative pilot business cases. In this regards, research assignments undergone to see how milk production boost through making the production system more efficient, how employing sustainable utilization of grazing land for long-term dairy profitability and a case study to evaluate the fit of the service offer by lead farms with the demand for services and agricultural practices of smallholder farmers.

## 5.2 Private advisory service pilot

In this sub-chapter we will look at what type of advisory services are available for farms and firms; what type of advisory services they need and use; their willingness to pay for different types of advisory services and finally looking at some of the qualities firms and farms look for in a good advisor.

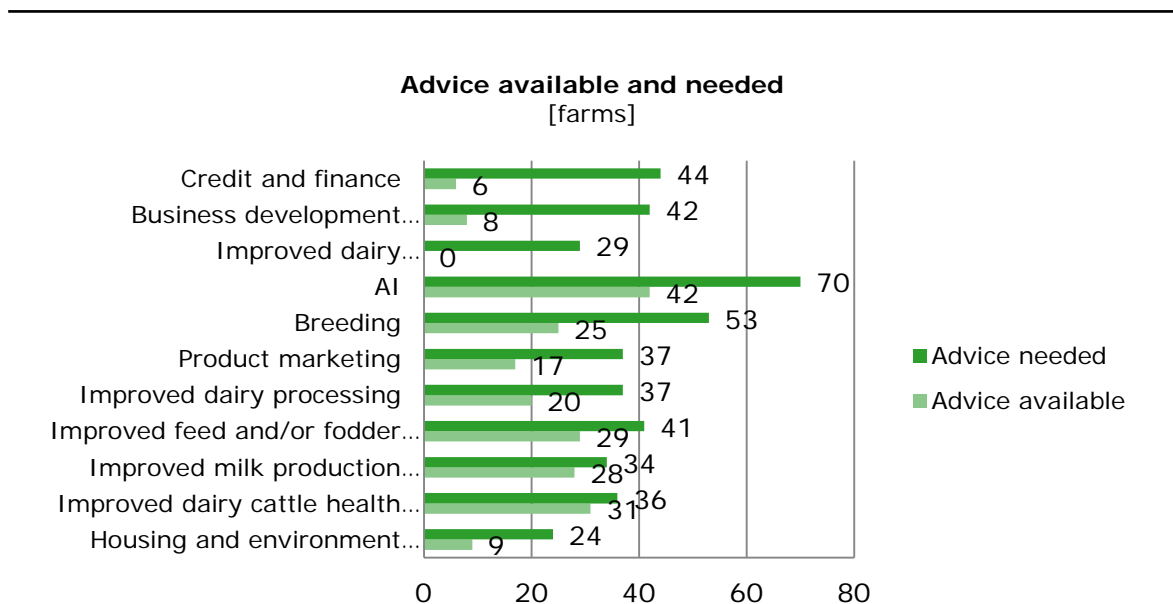
### 5.2.1 Advice available and advice needed

The extension services of the Ethiopian government have been working a long history in working towards improving the skills of smallholder dairy farms. The capacity and resources of the public extension systems are too limited to meet the demands of the commercialized dairy farms. This adversely affects the productivity of the commercial dairy subsector. There are some large gaps between what advisory services are needed by commercial farms and what is available in their area. 56 out of 103 farmers (51%) indicated that no advisory services are available at all in their geographic area.

Development partners have tried to fill the gap through providing advice to farms through their own experts, or contracting individual consultants or firms to provide advisory services on different topics. Many farms have gotten used to receiving advisory services for free from development partners, even though this happens sporadically (there is not always continuity) or receive free advice with the input they buy. Another trend is that advisory services that are available are provided by advisors that lack practical knowledge and experience. It is in this context that the DairyBISS project works on improving the quality and availability of relevant advisory services to both farms and firms. In the baseline study we identified the top five of advisory services needs for farms:

1. AI (70);
2. Breeding (53);
3. Credit and finance (44);
4. Business development services i.e. improved farm management / farm economics (42);
5. Improved feed and/or fodder production, utilization and/or feeding (41).

The biggest gaps in where available services do not meet the need for advisory services are in: credit and finance; business development services; improved dairy collection/handling; AI; breeding; product marketing and improved dairy processing.



The top five needs for advisory services for **firms** are: business planning (9), financial management (7), client relationships (6), product development and marketing (6) and technical advice on dairy farming (includes breeding; feed; dairy cattle health; housing) (5). The biggest gaps in where the available advisory services do not meet the demand for advice of firms are in: product development, client relationships and financial management. 4 out of 26 firms indicated that no advisory services are available in their geographic area.

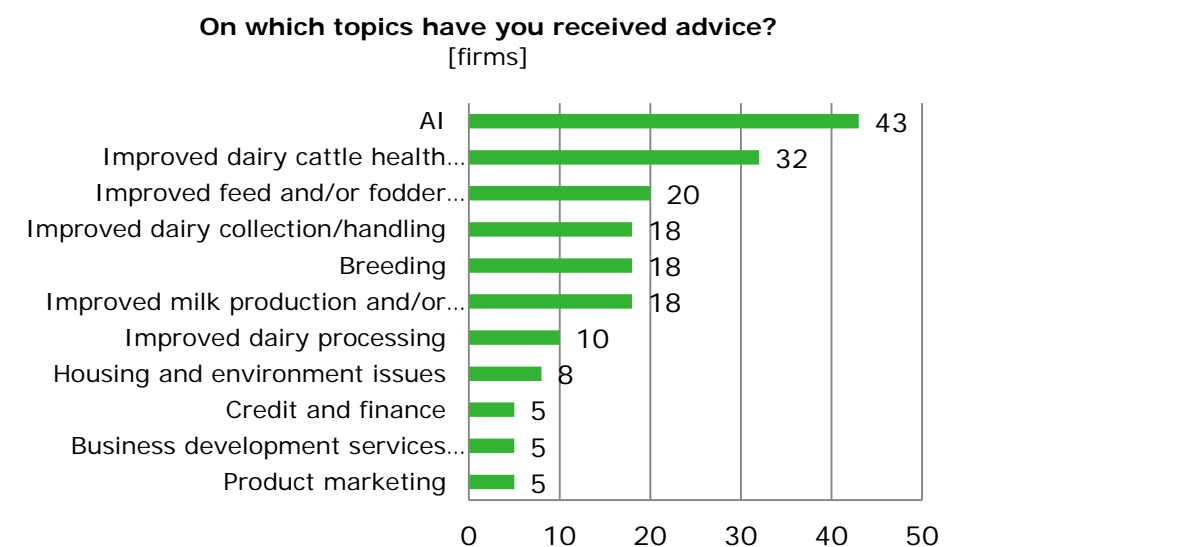


## 5.2.2 Receiving advice

### Farms

Some 40 percent of the farms have received advice on AI (43), followed by improved dairy cattle health management (32), Improved feed and/or fodder production, utilization and/or feeding (20), improved milk production and/or milking (18), breeding (18) and improved dairy collection/handling (18).

76 percent of the farmers that have received advice on AI received this from a government institution.



#### Firms

Firms indicated that they received advice on business planning (8), auditing and control (8), financial management (6), technical advice on milk handling & processing (4), technical advice on dairy farming (includes breeding; feeding; dairy cattle health; housing) (4), quality assurance (2), access to finance (1), and legal advice (1). There were no firms in our sample that have received advice on product development and marketing; neither on client relationships.



### 5.2.3 Willingness to pay for advice

General willingness to pay for advisory services lays around 60 to 70 percent for farms and a bit higher for firms, ranging from 78 to 100 percent.

#### Farms

If we look at the willingness to pay for the top five topics that farms need advice on, we see the following:

1. For advice on AI: 68 % is willing or might be willing to pay;
2. For advice on breeding: 75 % is willing or might be willing to pay;
3. For advice on credit and finance: 61 % is willing or might be willing to pay;
4. For business development services: 74 % is willing or might be willing to pay;
5. For advice on improved feed and/or fodder production, utilization and/or feeding: 71 % is willing or might be willing to pay.

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## Firms

For the top five topics that firms need advice on:

1. Business planning: 78% is willing or might be willing to pay;
2. Financial management: 100 % is willing or might be willing to pay;
3. Client relationships: 100 % is willing or might be willing to pay;
4. Product development and marketing: 100 % is willing or might be willing to pay;
5. Technical advice on dairy farming: 100 % is willing or might be willing to pay.

### 5.2.4 Advisor – important qualities

The most important quality in an advisor according to both farms and firms (118) is that he or she needs to have practical experience; this is followed by having a good attitude (80), adequate education (68) and being hard working (67).

### 5.2.5 Private advisory services pilot

See F&S proposal and their upcoming baseline report.

## 5.3 Technical innovation business cases

At the time of the baseline there were no technical innovation business cases selected yet. Once there are, we will look at the following questions:

- How is the innovation business case organised? How does it work?;
- Which actors pay what in business models? - sustainability; exit strategy; uptake/scalability.

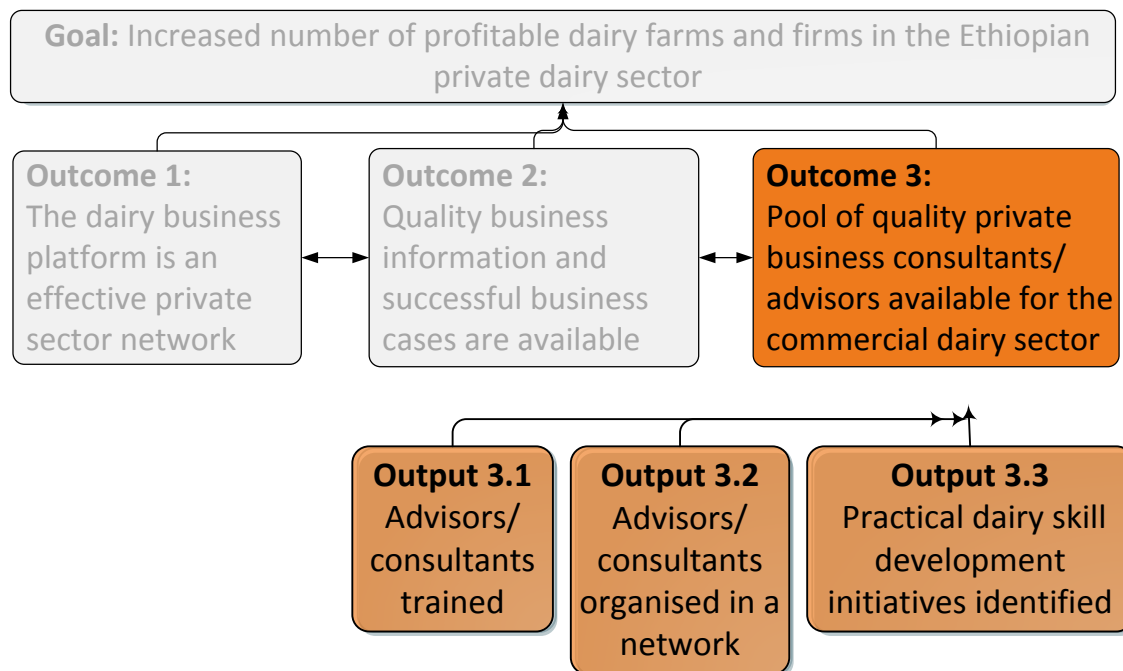
During the validation workshop which took place during the first dairy business platform meeting, attendants discussed possible topics for innovation cases. All agreed that topics should be chosen all along the dairy value chain and that cases could also incorporate several areas across the value chain. Specific topics that were considered important include: improved barn construction, fodder production, feed formulation and ratios, AI (evaluation of current practice), animal health, input supply, cooling chain and proper milk containers, fodder seed production, technical and financial bench marking and milk quality.

## 6 Strategy 3: Capacity development & advisor network

The last strategy of the DairyBISS project focusses on capacity development and establishment of an advisor network. The related outcome is: having a pool of quality private (business and technical) advisors available for the commercial dairy sector. The two main questions for this strategy are:

*“What are the training needs of advisors? And how should trainings be organised?”*

*What is needed according to potential members to make the advisor network functional and rewarding for its members?”*



### 6.1 Training of advisors

Before we look at the advisors' training needs, we will look at what kind of topics the advisors that we spoke to do provide advice. Many advisors, 19 out of 23, give advice on multiple topics. Listed below are the topics that advisors give advice on, with the number of advisors in brackets:

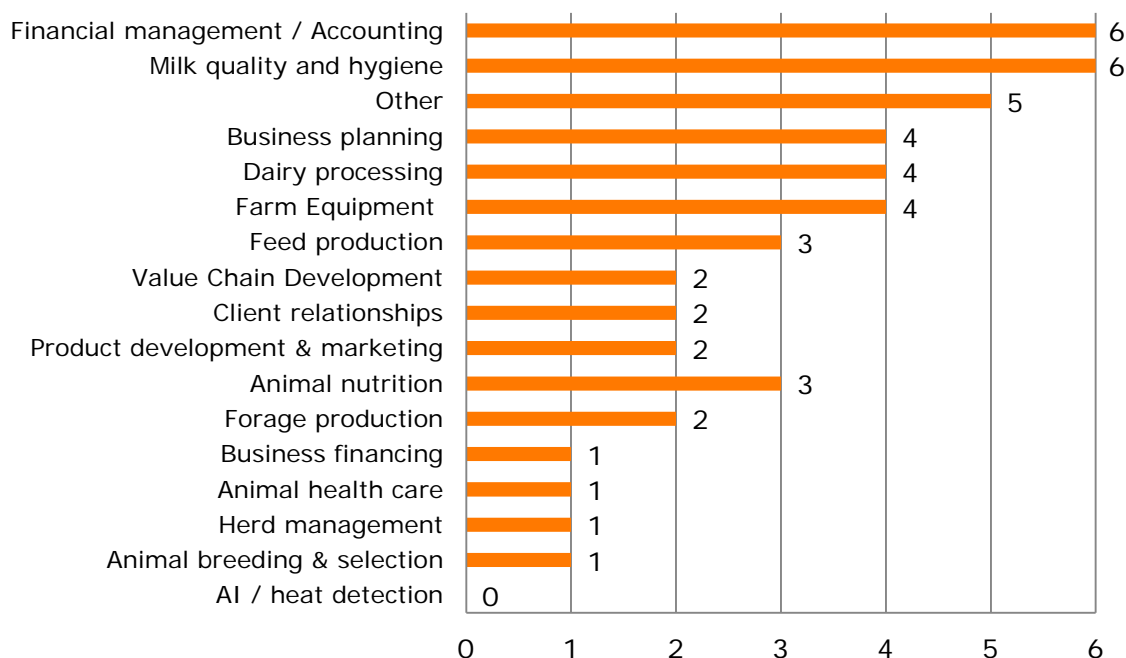
1. Technical advice on milk handling & processing (12);
2. Equipment (e.g. equipment for housing, milking, fodder production, manure handling) (9);
3. Veterinarian (5);
4. AI (5);
5. Fodder (4);
6. Animal drugs and vet equipment (4);
7. Fodder seed (3);
8. Business planning (3);
9. Breeding (3);
10. Product development and marketing (2);
11. Financial management (2);
12. Animal feed ingredient supply (2);
13. Animal feed processing (2);



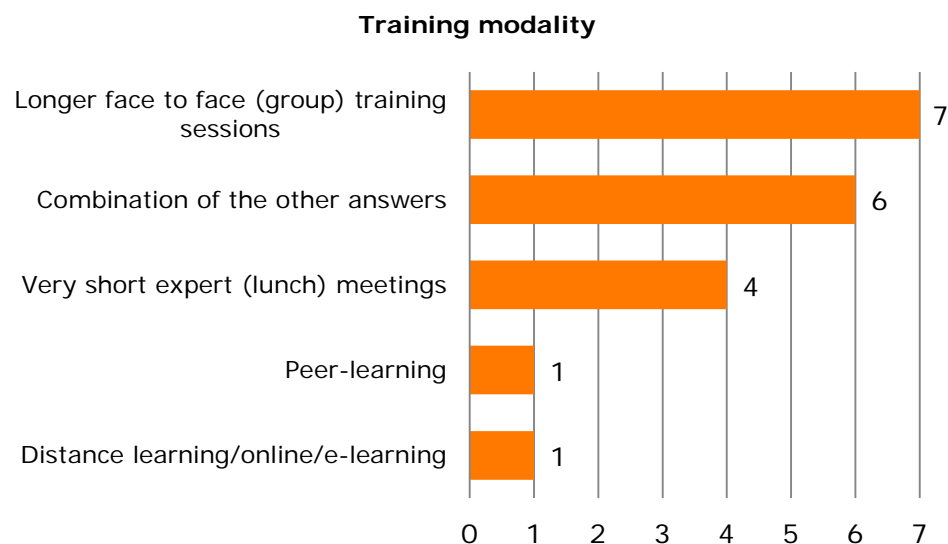
14. Milk Retailing (1);
15. Access to finance (1);
16. Client relationships (1);
17. Quality assurance (1);
18. Auditing and control (1);
19. Animal feed retailing (1).

The services of these advisors would fit well with the needs from especially commercial dairy farms on dairy collection and handling, AI, breeding and business development services. In addition to the services the 23 advisors are offering, they still have a need for further training on various technical topics relating to their specialty and beyond. Most advisors, including advisors working independently and for firms, would like to receive training on financial management and accounting (6); milk quality and hygiene (6), business planning (4), dairy processing (4), and farm equipment (4). Five advisors indicated that they would like to receive training on other topics than the once listed, namely: project cycle management; record keeping, how to spread awareness on advantages of milk; and dairy technology and engineering. Again this matches quite well with the advisory needs from farms and in this case also firms.

**Training needs of advisors**



Most advisors (7) would like to receive this training in the form of longer face-to-face (group) training sessions, followed by 6 advisors who would like to receive the training in the form of a combination of longer face-to-face sessions, short expert lunch meetings, peer learning, and distance learning.



Most advisors found it hard to indicate whether they would be willing to pay for a certain training and how much that would be per year. In the table below we have listed the answers for the trainings on different topics – indicating how many indicated willingness to pay, based on which conditions, and whether anyone could give an estimation of how much they could spend per year on training on this topic.

Topic	Are you willing to pay for training on this topic?	Conditions	BIRR per year
<b>Milk quality and hygiene</b>	3x yes 1x no 1x maybe	Practical, valuable and quality. Members of the cooperative decide.	
<b>Financial management / Accounting</b>	3x yes 2x maybe	Important, affordable, and of quality. Members of the cooperative decide.	2000 5000
<b>Other</b>	5x yes 1x no 1x maybe	Depends on who develops the training, practical, affordable, important and of quality. Members of the cooperative decide.	5000
<b>Farm Equipment</b>	1x yes 1x no 1x maybe	If the technology is appropriate. Depends on the exact topic and financial status of my company	
<b>Dairy processing</b>	3x yes 1x maybe	Practical and of quality. Members of the cooperative decide.	1500
<b>Business planning</b>	2x yes 1x no 1x maybe	Results-based and of quality	
<b>Animal nutrition</b>	2x yes	When my company becomes stronger. Quality.	
<b>Feed production</b>	3x yes	When cost-sharing is possible. Result-oriented	400 1000
<b>Forage production</b>	2x yes	If on or near my farm. Members of the cooperative decide.	400
<b>Product development &amp; marketing</b>	1x yes 1x maybe	Don't have money now. When my company's capacity has grown.	
<b>Client relationships</b>	1x yes 1x maybe	Quality	
<b>Value Chain Development</b>	2x yes	Valuable.	2000
<b>Animal breeding &amp; selection</b>	1x yes	Valuable.	
<b>Herd management</b>	1x yes	Valuable.	
<b>Animal health care</b>	1x maybe	Members of the cooperative decide.	
<b>Business financing</b>	1x maybe		

In conclusion, there is some willingness among advisors to pay for trainings, but they need more information on who develops and provides the training and what the precise topics will be, in order to decide whether the training will be valuable to them and how much they could or would pay for it.

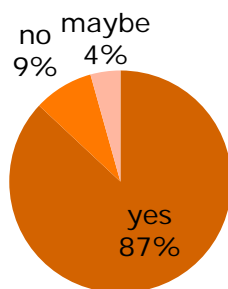
## 6.2 Advisor network

### 6.2.1 Interest in advisor network and expectations

91 percent of the 23 advisors interviewed are interested to join the advisor network.

Those who were not interested in joining the network are now giving the advice for free, along with the products that they sell. They are not interested in becoming private advisors that charge for their advice.

### Are you interested to join the advisor network?

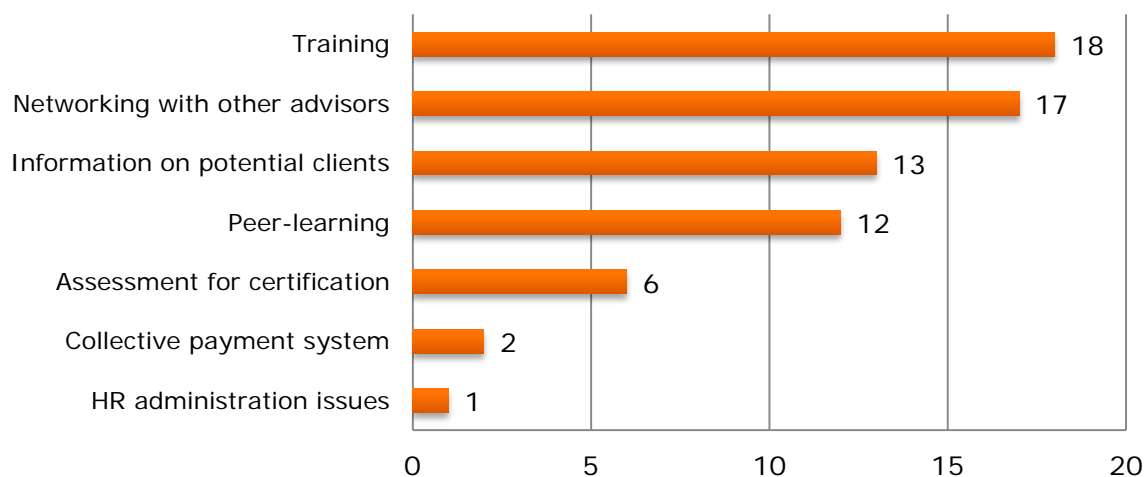


The ones that are interested to join expect that through such a network there would be gains for them through knowledge sharing; networking; working collectively to address common challenges; getting new information with regards to the sector; getting advice on giving advice from practice; a win-win approach and trust among advisors. They expect that this would lead to getting more customers, longer term contract agreements, and getting paid for working as an advisor. One advisor mentioned to make sure that we also include the advisors who do not work from offices (but are in the field).

#### 6.2.2 Services to offer

We asked the advisors that are interested in joining the network which services they would like the network to offer (they could select multiple options from a list). Most advisors mentioned training (18), followed by networking with other advisors (17), providing information on potential clients (13), peer-learning (12), and assessment for certification (6), collective payment system (2) and finally HR administration issues (1).

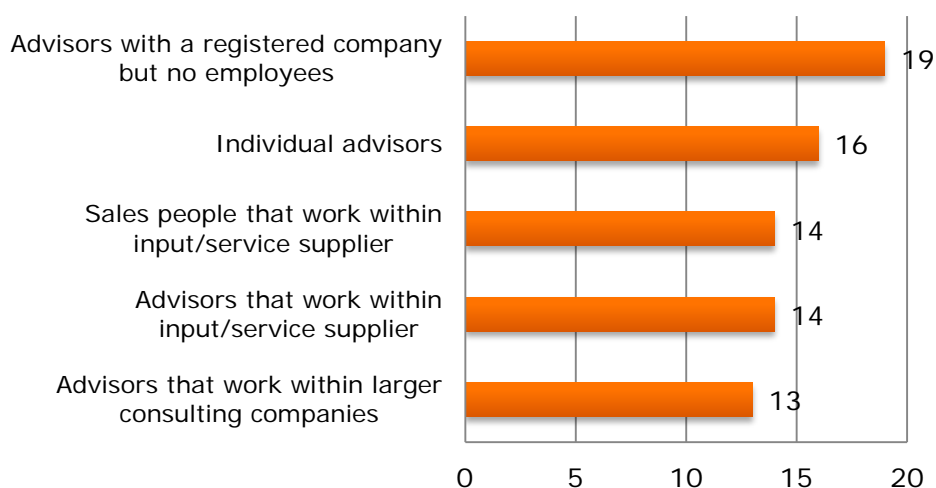
#### Which services do you want the advisor network to offer?



#### 6.2.3 Who can join the advisor network?

We asked the advisors what kind of advisors should be able to join the advisor network. Most agreed that any type of advisor should be able to join – including individual advisors, advisors with their own company, or advisors that work within other consulting companies or input/service provider companies.

### Who should be able to join the advisor network?



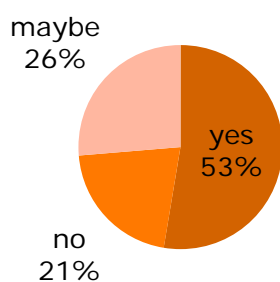
We also asked them for other types of criteria on which to base the selection of advisors for the network. Most mentioned criteria are:

1. Willingness to learn (16);
2. Willingness to share (16);
3. Willingness to pay for membership (9);
4. Topic of advice (6) (to cover the whole dairy value chain);
5. Level of education (5);
6. Level of training (2);
7. Number of clients (1).

#### 6.2.4 Payment for membership

81 percent of the advisor is or might be willing to pay for membership of the advisor network. To those who answered “maybe” or “yes” we then asked how much they would be willing to pay per year. The average amount advisors are willing to pay per year is 911 BIRR (within a range from 100 to 2000 BIRR).

### Are you willing to pay for membership of the advisor network?

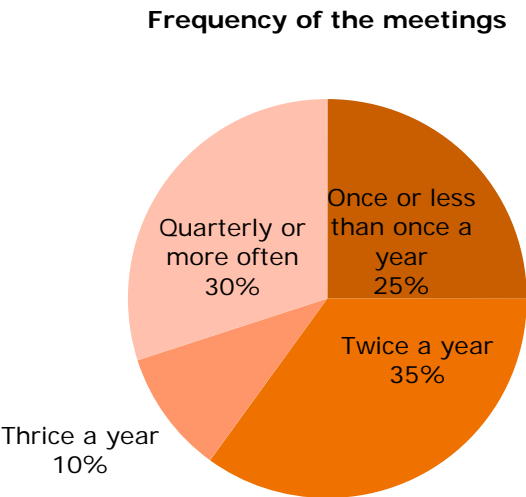


Advisors would be willing to pay under the following conditions:

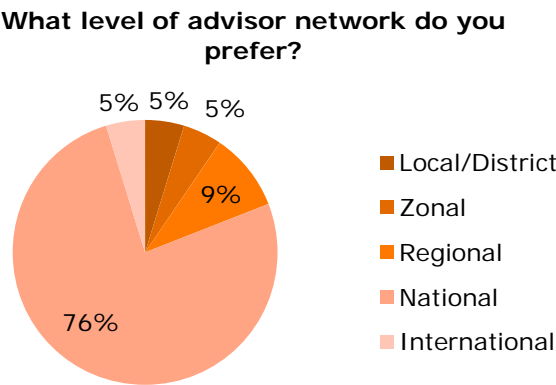
- 1. Based on actual benefits / value shown (9);
- 2. Low costs (2);
- 3. First achieve some set objectives (1);
- 4. Based on decision of the general assembly of the cooperative (answer from a cooperative/union)(1);
- 5. If they get access to interesting clients (1).

Those who do not want to pay either have limited resources or feel like they are paying by investing their time, experience, and knowledge in the network.

6.2.5 Frequency, level and location of meetings

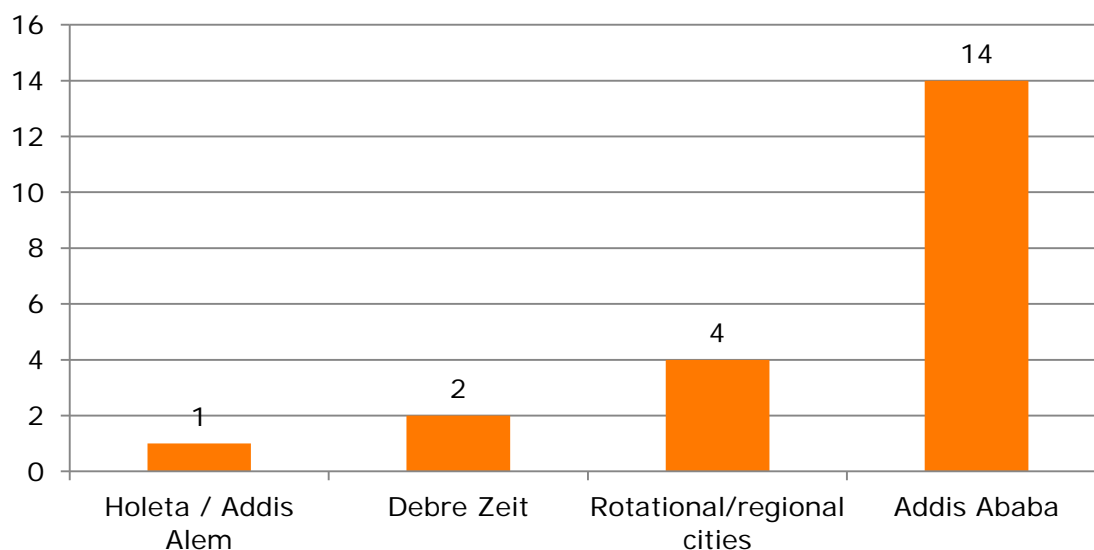


The advisors are almost equally divided over wanting to have network meetings twice a year (35 percent), every three months (30 percent) and once or less than once a year (25 percent). The frequency of the meetings is thus something that still needs more thought – maybe at the first advisor network meeting.



76 percent of the advisors think the advisor network should be at national level.

For the location of the advisor network meetings, most advisors choose Addis Ababa. Followed by the option to make the location rotational between regional or zonal cities or basing it on the issue that is to be discussed.



### 6.3 Practical dairy skill development initiatives

The practical dairy skill development initiatives were not a focus area of the baseline study. However, through informal discussions interviewees revealed that practical dairy skills are lacking and that these skills are needed to improve the production and productivity of dairy farms. The main challenges according to the interviewees were lack of practical skills on: formulating rations with locally accessible animal feed, artificial insemination, animal breeding, dairy processing and business management.

Practical dairy skill development initiatives consist of technical training offered by the project to potential dairy advisors and consultants. A first try-out has been implemented in September 2015 which will be used to further work out a full training and certification programme for advisors which will be implemented as half yearly programmes, to be started early 2016. This programme is implemented jointly with Ambo University.

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## 7 Overall conclusions and recommendations for the project

### 7.1 Impact level: profitability of farms and firms

This chapter looked at the following research questions:

- *To what extent are the farms and firms that enter the project profitable?*
- *To what extent do farms and firms make use of business information and advice to improve their profitability?*

To answer the first research question, only a minority (29 percent) of the 103 **farms** keep financial records and only 23 farms shared their financial information with us. Of these 7 were not profitable and the 16 that were profitable had an average profit margin of 35 percent. During the validation workshop participants indicated that the overall profit margin in commercial dairy farming is low. For the **firms**, 16 of the 26 provided us with their financial information and on average they have a profit margin of 8.3 percent from dairy activities. 92 percent of all firms interviewed do consider themselves to be profitable.

For the project this means that, in order to be able to report on the impact level, the project should ensure registration of financial information in more detail, as the information collected is incomplete and not validated by financial reports. This can only happen once farms and firms become more involved with the project and their trust is gained.

Regarding the second question, 90 out of 103 **farms** use business information to improve the profitability of their farm and 12 out of 26 **firms** do so. Rather than awareness on the need for business information in general, the issue is the poor quality and availability of available information. This seems to confirm the assumption that access to good quality business information is important for improving the profitability of farms and firms in the commercial dairy sector in Ethiopia. Accordingly, the project should work on strengthening both the quality and availability of business information.

### 7.2 Strategy 1: Development and support of Dairy Business Platform

The main research question for the first strategy of developing and supporting a dairy business platform was:

- *What is needed according to potential members to make the dairy business platform an effective private sector network?*

We will discuss the answer to this question by discussing the conclusions and recommendations on the different outputs that fall under this strategy: 1) dairy business platform, 2) B2B brokering (facilitated by platform), 3) business development services and business information supplied.

#### 7.2.1 Dairy business platform

Among the interviewed farms and firms there is a widespread interest in joining a dairy business platform. 85 percent of the 103 farms would be interested and 92 percent of the firms. In order to make the platform functional and establish an effective private sector network, the following should be taken into account:



- **Membership:** Most farms and firms agree that the members of such a platform should come from along the dairy value chain, thus including: commercial dairy farms, cooperatives and unions, input suppliers, service providers, and processors. While some firms question the role of government institutions in a private sector platform, many interviewees do want to include them in the platform;
- **Criteria:** the majority of the farms (55 percent) and firms (61 percent) agreed that criteria should
- be used to select members. Most mentioned are: commitment to the sector, role in the sector, and business standard;
- **Frequency of meeting:** farms prefer to meet on a quarterly basis, while firms are equally divided between meeting quarterly and biannually. Some firms suggested meeting more often in the beginning to establish the platform and after that have less frequent meetings (once a year);
- **Level of the platform:** Many farms (45 percent) and firms (63 percent) think that the platform should start at a national level, while regional or local chapters can be developed later on;
- **Location of the meetings:** Most farms (50 out of 84 that answered) and firms (18 out of 23) prefer Addis Ababa as the meeting location. However, when responding to issues to be discussed rotational meetings can be organised in different cities;
- **Payment for membership:** The majority of the farms (62 percent) and firms (74 percent) would be willing to pay for membership once the pay-offs of membership become clearer. They would be willing to pay less than 2000 BIRR per year. Firms preferred a flat rate that includes all meetings/workshops etc., while farms seemed to prefer a lower rate and pay separately for these extras;
- **Expectations from the platform:** Both farms and firms expect to share experiences, learn about new technologies and innovations, share business information, and network or link with various actors through the platform. Farms and firms were also interested in the platform to have some policy leverage where possible;
- **Communication:** Farms and firms prefer to communicate within the platform through face-to-face meetings and visits. While most farms do not have access to internet, both farms and firms would appreciate communicating reports and information through Facebook and a DairyBISS website. During the validation workshop, phone calls and trade fairs were also mentioned as important ways to ensure interaction within the platform. Farms and firms listed a variety of topics they would like to see communicated, most importantly dairy farm management and market(ing) information).

These results mean for the project that the validity of the project strategy to develop a dairy business platform as a way to support farms and firms in the commercial dairy value chain is confirmed.

A task force is already being set up to develop a platform governance agreement which will outline the role and responsibility of the members in the platform including the role of government agencies. This manual will also have to outline the main criteria on which members are to be selected, establish the scope and level of the platform and how decisions on location of meetings should be made. In the governance agreement of the platform it should also be outlined how and when payment will be organized. In the activities and work plan of the platform the expectations of the potential members should be taken into account and efforts should be made accordingly.

The communication strategy of the platform should take into account the preferred communication channels and the information that members would like to see communicated: e.g. with Facebook and website updates it should be ensured that members without access to internet are updated through calls, snail mail, and/or visits.

### 7.2.2 B2B brokering

The term “B2B brokering” was not often used by farms (7) and firms (10) to name their expectations from the dairy business platform, they rather called this networking and linking with various actors (including other businesses and potential clients) . Therefore the role of the platform in facilitating B2B relations using face-to-face events like matchmaking and business lunches, is justified. DairyBISS will

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work with existing B2B initiatives like NABC and ABSF through sharing information and contacts to further develop the B2B brokering element of the platform.

### 7.2.3 Business development support and business information supply

This part focused on how to supply business information to farms and firms: what are their current sources of information and what are the barriers they encounter?

Both farms and firms use informal face-to-face meetings, phones and field visits for getting business information, while firms use more internet and social media and farms use the radio. While both farms and firms mention availability of about business information as major barrier to getting the information they need, farms also mention lack of awareness (knowing what is out there), and firms miss an organized body that provides reliable and up to date information on dairy business.

This means for the project that when supplying business information, the communication channels should be tailored to the audience. Informal face-to-face meetings, phone calls, and field visits can be used to reach both farms and firms. Firms can also be reached through internet and social media, while farms are more used using the radio as source of business information. In overcoming the current barriers that farms and firms face in obtaining relevant business information, the DairyBISS project could fill the gap by becoming the central body that collects and provides business information on dairy, and/or provide support to create or strengthen institutions to give business information. Supplying business information and training experts and advisors to share this information thus seem valid strategies to support the commercial dairy sector in Ethiopia.

## 7.3 Strategy 2: Business information & advice

The main research question for the second strategy of developing business information and advice was:

- *To what extent is the business information and advice that is needed by the farms and firms currently available and of quality?*

We will answer this research question by giving the conclusions for the different outputs that fall under this strategy 1) business information developed (what to develop and how); 2) private advisory services; 3) technical innovation business cases.

### 7.3.1 Business information developed

Where under strategy 1 on the dairy business platform we looked at how business information should be *supplied*, here we look at *what type* of business information is needed and how to *develop* this.

We looked at what type of business information is needed by identifying the largest gaps between what is available and what farms and firms indicate they need. Farms need business information on product marketing and development, market outlooks and perspectives. Firms need market information on the supply and prices of inputs, market trends and outlooks, product marketing and information on the availability and prices of support services like logistics. Respondents are aware that business information is crucial to improve their profitability and productivity. However, the majority of the farms (66 percent) and firms (61 percent) indicate that the available business information is not of sufficient quality.

According to both farms and firms, business information is valuable when it is realistic, practical, applicable, up to date, and when it helps to improve the production, productivity, and profitability of the farm/firm. Farms and firms also gave suggestions for how to improve the quality of business information: for firms focus on making it reliable, recent, and accessible; for farms focus on working on availability, including market trends and systems, reliable, organising it through a network, and linking business information to advisory services.

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We therefore recommend that the DairyBISS project works on collecting and developing business information of the types that are needed most by farms and firms and on tailoring this to the different needs of farms and firms.

Developing and collecting **quality** business information that is **needed** thus means that the DairyBISS project should focus on:

- Organising (putting it all in one place) and updating business information;
- Ensuring reliability and continuity of available information;
- Developing and/or collecting market information (outlooks, trends, perspectives, planning, input supply and prices, and prices of support services);
- Developing and/or collecting product marketing and development information.

There are some ideas on how to develop this kind of business information within the project:

- Conduct studies and produce reports like the business opportunity report;
- Support a student internship program between Wageningen UR and Universities in Ethiopia to conduct studies and generate relevant business information;
- Develop monthly and quarterly dairy market reports that include latest key dairy economic data, highlight the most important trend in the sector and other key dairy sector business information;
- Collect business information from lessons learned through technical innovation pilots and business cases.

### 7.3.2 Private advisory services

The DairyBISS project works in a context where public extension services for commercial dairy farms and firms are in short supply, where development partners and input suppliers often provide advice to farms for free, and where the majority of the farms (53 out of 103) indicate that there are no advisory services at all in their geographic location that are tailored to the needs of commercial farmers. On top of that advisors who do offer services often lack practical knowledge and experience.

The baseline study looked at what type of advice farms and firms most need and where the gaps between availability and need are the largest. For **farms** available advisory services do not meet the demand when it comes to credit and finance, business development services, improved dairy collection and handling, AI, breeding, and product marketing. For **firms** the gaps are highest in product development, client relationships, and financial management. Though many farms and firms have received advice for free in the past, there is a general willingness to pay for advisory services. For farms this lies between 60-70 percent for the advice on topics that are most in demand and for firms this is 78-100 percent. What farms and firms value most in advisors: practical experience, a good/hard working attitude, and an adequate education.

This means for the project that there are many topics that farms and firms would like to or need to receive advice on - there is a large gap to fill. It will be important to work on practical experience to improve the quality of advisors and in general on making more qualified advisors available to commercial dairy farms. There is a willingness to pay for good advice, which is good for the sustainability of private advisory services. Recognising the need and gaps of advisory services for medium and large scale commercial farmer and dairy firms in Ethiopia, technical modules will need to be developed for advisors and farm managers. This manual development should focus on improving quality and accessibility of private advisory services. Training and certification (T&C) through accredited successive training and coaching offers a mechanism for accessing knowledge and services aimed at improving quality of advisors.

### 7.3.3 Technical innovation and business cases

At the time of the baseline no technical innovation business cases were selected yet. However, during the validation workshop there were some ideas on possible topics for innovation pilots including: linking actors across the value chain, improved barn construction, fodder production, feed formulation

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and ratios, AI (evaluation of current practice), animal health, input supply, milk cooling chain, proper milk containers, fodder seed production, technical and financial benchmarking, and milk quality. These innovation pilots will link farms and firms and will provide new business cases and information that can be documented and disseminated through e.g. the dairy business platform for further scaling up.

## 7.4 Strategy 3: Capacity development & advisor network

The two research questions for this chapter were:

- *What are the training needs of advisors? And how should trainings be organised?*
- *What is needed according to potential members to make the advisor network functional and rewarding for its members?*

Both training and organising an advisor network are outputs that support the strategy of creating a pool of quality private advisors being available for the commercial dairy sector. We will answer these questions by first zooming in on the training needs of advisors (and how this links to private advisory needs of farms and firms), before looking at what potential members need from an advisor network to make it effective and relevant.

### 7.4.1 Training of advisors

The training and possible coaching activities of the DairyBISS project will mainly be tailored to improve the skills of advisors that work for or are willing to work for the commercial dairy sector. We have spoken to 23 advisors that give advice on many different topics that cover the whole dairy value chain, most give advice on: technical advice on milk handling and processing (12); equipment (9); veterinarian (5); AI (5); fodder (4); animal drugs and vet equipment (4); fodder seed (3); business planning (3) and breeding (3). The services of these advisors would fit well with the needs from especially commercial dairy farms on dairy collection and handling, AI, breeding and business development services.

In addition to the services that the 23 advisors are offering, they still have a need for further training on various technical topics relating to their specialty and beyond. Most advisors need or would be interested in training on financial management and accounting (6) and milk quality and hygiene (6); followed by business planning (4); dairy processing (4); and farm equipment (4). Again this matches quite well with the advisory needs from farms and in this case also firms.

Most advisors (7 out of 23) would like to receive these trainings through longer face-to-face trainings, which can be combined with e-learning, peer-learning and shorter meetings, according to another 6 out of 23 advisors. There is some willingness to pay for trainings by advisors. However, they need more information on who develops and provides the training and what the precise topics will be, in order to decide whether they think the training is valuable to them and how much they could or would pay for it.

This means for the project that, as the range of topics that advisors need training on is wide and the resources and capacity of the DairyBISS project are limited, a prioritization of topics should be made based on number of advisors interested and linkages with the innovation pilots. As longer face-to-face training sessions are preferred, which requires quite some logistics and resources, it should be investigated whether for some topics face-to-face training can be combined with distance learning and peer learning.

### 7.4.2 Advisor Network

91 percent of the 23 advisors interviewed is or might be interested to join an advisor network.

In order to organize the advisors in a network that will be functional and rewarding for its members, the following should be taken into account:

- **Expected benefits:** Knowledge sharing, networking, working collectively to address common challenge, getting new information with regard to the sector, getting advice on giving advice

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from practice in order to get more customers, get longer contract agreements and get paid for working as an advisor;

- **Services to offer:** The advisor network should at least offer training, networking with other advisors, information on potential clients and peer-learning. Some advisors (6 out of 23) were also interested in assessment for certification;
- **Membership:** Most advisors agreed that any type of advisor should be able to join the network, including individual advisors and those working for companies;
- **Criteria:** Important criteria for selecting the advisors for the network are willingness to learn and share, willingness to pay for membership (sustainability), the topic of advice (to cover the whole dairy value chain), and level of education;
- **Payment for membership:** 81 percent is or might be willing to pay for membership, once it become clear what value the network adds for advisors. The average fee that advisors would be willing to pay per year is 911 BIRR;
- **Frequency of meeting:** The preference for the frequency of meetings is not really clear – this should be decided at the first advisor network meeting;
- **Level of the network:** 76 percent of the advisors prefer the network to be at a national level, starting with a focus on Oromia regional state and the Addis Ababa City Administration to foster close links of collaboration;
- **Location of the meetings:** Meetings can be held in Addis Ababa (14 out of 23 prefer this) and when required be made rotational based on the topic or issue at hand.

The willingness of advisors to organise themselves in a network show that, in addition to organising trainings for them, this is a good way to work on creating a pool of quality private advisors available for the commercial dairy sectors. It is recommended to organise some first meetings with potential members who can then further determine how they would like to organise themselves in terms of membership criteria, payment, frequency of meeting, level and location of the network.

#### 7.4.3 Practical dairy skill development initiatives

While acquiring information on existing practical skill development initiatives was not the focus of the baseline, some interviewees indicated that there is a need for practical skill development on various issues of dairy production and processing. Some linkages have been made with Nuffic and Ambo University to work on practical dairy skill development initiatives. These dairy skill development initiatives also include training for advisors. A first try-out has been done in September and this is being worked out into a full training and certification programme at the moment.

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