THE SUMMARY OF BUSINESS PROJECT

for the establishment of a "SMART" livestock farm and milk processing plant under the "Erasmus +" program;Ł

"An innovative model of SMART Farm adjacent to VET institution for students work-based learning towards better employability of graduates" (CB4WBL) project

Stepanavan State Agricultural College of RA MoESCS

Ministry of Education, Science, Culture and Sports of Armenia

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Summary

Stepanavan State Agricultural College, named after Professor A. Kalantar, aims to establish a "SMART" livestock farm and a milk processing plant adjacent to the college. This initiative will serve as an educational and production base, enhancing the efficiency of dual education and addressing numerous challenges in the field.

1. Educational Component: Students will have the opportunity to study professional modules on-site as part of a dual education program, allowing them to enhance their practical skills and abilities. From 2019, the college will organize experimental training in two specialties based on Work-Based Learning (WBL) approaches.
   In the dual education model, the lessons of theoretical and practical training will be completely revised, and practical hours will make up no less than 70% of the total hours. Within the framework of the educational component of the project, not only those teaching agribusiness and agricultural specialties, but also those teaching economics, accounting, and management specialties, will improve their practical knowledge.
2. Establishment and implementation of an agribusiness model with a complete production-processing-realization chain, which as an "economically justified model" will be a typical example not only for college students, teaching staff (from the point of view of organizing dual education), but also for a wide range of public circles in the region - schoolchildren, small and medium-sized farms and other interested parties.
3. Research work: The college teaching staff and students involved in relevant specialties will have the opportunity to carry out research work, in particular, to create new products - new types of cheese, with which the college can become more recognizable in the region. It is also planned to brand the new type/types of cheese created as a result of the experimental work and have a license for their sale.
   After the discussions with the superior body and our partners, we will determine the legal type of the enterprise, considering the requirements of the new VET law. However, based on a preliminary agreement, we plan to establish a Limited Liability Company (LLC).

4. The abilities of pedagogical staff: the creation of a well-established educational and productive base is an unprecedented opportunity for college staff to improve not only their professional skills, but also update practical production knowledge and perform experimental work. In addition, some of them will be involved in the daily work of "Smart" in the daily work and will provide additional income, which will greatly encourage college pedagogues to continue their educational activities.
5. Financial component: As a result of the mentioned activities, it is expected to provide additional financial receipts from the sale of products, which will be aimed at the regular improvement and introduction of innovative solutions to the material and technical base of the college.

Over the years of its activity, the college has acquired many new partner organizations that willingly support the process of training in the field of vocational education, however, experience has shown that there are several problems in implementing full dual training to get a job/internship with an employer:

• Insufficient number of employers,
• Insufficient material and technical base for some,
• Lack of specialists (mentors) for some, etc.

To address the issues mentioned above and to ensure that students possess practical knowledge and skills before they begin dual training with employers, it is essential to establish a production facility equipped with modern technologies adjacent to the college. This initiative will lead to a significant transformation in teaching methodology, facilitating the transition to dual training across various specialties.

1. In the case of establishing the "SMART" livestock farm, the college considers milk production to be the main product in the coming years, for which both climatic and economic conditions are sufficient. However, taking into account the requirements stipulated by the program, which is to establish a complete production-sale chain, as well as the demand in the market, milk processing is economically profitable, since in this case, the following main problems will be solved:

In the case of milk processing, students and teaching staff of the "Milk and Dairy Technology" specialty will have the opportunity to improve their skills and abilities in the processing workshop adjacent to the college within the framework of dual training.

2. In the case of milk processing, the college will provide more income than from the sale of milk (approximately 20 percent).

The planned "SMART" livestock farm should match European standards, equipped with modern technologies and equipment. Advanced feeding and care methods should be used, applying the best practices of our foreign partners.

And the small milk processing plant will produce cheese and other dairy products from fresh cow's milk using traditional Armenian techniques that have been largely forgotten. The main types of cheese produced will be Lori and Chanakh, specifically chosen to remind the Armenian public of the authentic taste of these beloved traditional cheeses.

Within the framework of the project, design and estimate works for the building, structures, and all infrastructure have already been carried out, according to which a livestock building for 25 heads of cattle, equipped with modern technologies and its supporting infrastructure, will be built on the territory of the college.

The college is provided with the necessary land for buildings and production facilities. The state will construct the "Smart" livestock farm, and the machinery and equipment will be purchased with the assistance of international donor organizations, including funding from the "Erasmus+" program.

The designated area for the farm is situated 60 to 70 meters from the college, covering a total of 2,110 square meters. The milk processing building is located adjacent to the college. This facility is a single-story stone building with a total area of 579 square meters. Approximately 25 million AMD will be allocated for its renovation and reconstruction, and appropriate equipment and technical resources will be installed. The current market value of the building is estimated to be around 50 million AMD.

The farm, with a production area of approximately 633 square meters, including a calf barn, a milking parlor, and auxiliary storage facilities, will be equipped with modern equipment, by the requirements for a smart livestock building, designed for 20-25 animals with loose housing. The cost for construction and technological support is estimated at 30 million AMD and 17 million AMD, respectively.

It is planned to initially purchase 10 7-month-old Montbeliard breed heifers with the support of other organizations, each worth 1.2 million AMD, which will ensure the milk production after 2 months in the same year.

The implementation of the project requires approximately 158 million AMD. Out of this total, around 55 million AMD will be invested by the college. This investment includes both fixed assets, such as the production building valued at 50 million AMD, land designated for a livestock farm, and property and equipment worth 3.5 million AMD. Additionally, 2 million AMD will be allocated for renovation and reconstruction. The successful implementation of the project requires external support from donor organizations totaling approximately 103 million AMD. This funding will be allocated as follows: 55 million AMD for the construction and renovation of buildings, 34 million AMD for the purchase of equipment, and 12 million AMD for the acquisition of high-pedigree animals. Additionally, a small amount of 1 million AMD is designated for marketing resources and branding efforts.

The project is primarily focused on scientific research, education, and production. As a result of this initiative, profit will be generated from the use of the infrastructure. The college plans to reinvest these funds into updating and improving its facilities and modernizing educational methods. In the first two years, we anticipate minimal profit from this activity, but starting from the 3rd year, it is expected to have a 5-7% profitability.