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

Project# 101129071
ERASMUS+ Capacity Building

Capacity workshop

26-28 November 2024

Lisbon, Portugal

APPROACHES TO REVISION OF STATE EDUCATIONAL STANDARDS AND MODULAR PROGRAMS TO SUPPORT STUDENT WORK-BASED LEARNING AT A SMART FARM ADJACENT TO VET INSTITUTION

TATEVIK GASPARYAN

DIRECTOR OF THE NATIONAL CENTRE FOR VOCATIONAL EDUCATION AND TRAINING DEVELOPMENT

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- WP2 activities of the project include the revision of the State Education Standards and Modular Programs which will be adapted for delivery through WBL at SMART Farm, as well as will contribute to development of relevant professional and soft skills, including skills supporting green transition.
- While designing the proposal of the project formulations for the WP2 were based on the Law on Preliminary Professional (craftsman) and Middle Professional Education (PPMPE), and procedures of developing and reviewing the standards and modular programs.
- The VET content is defined by the State Educational Standards which are approved by Ministry of Education, Science, Culture and Sport (MoESCS) for every qualification and by the modular curricula. According with the Law on PPMPE, the State Educational Standard is a 'norm which defines the mandatory minimum content of educational programs, the maximum academic workload of learners and the qualitative requirements towards graduates'.

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- In June 2024 a new Law on Vocational Education and Training (VET) has been adopted with new approaches and new regulations concerning the content development of the VET education.
- In particular, there has been a transition to a Sectorial Qualifications Framework and the resulting transition from Educational standards to Qualifications Standards.
- According to the new Law on VET , Article 7 ‘Vocational education programs are elaborated in accordance with the requirements of the national qualifications framework and sectorial qualifications framework.’
- According to the new Law on VET , Article 19 authorized public administration body (MoESCS) for education in vocational education and training approves the description of each qualification of vocational education from sectorial qualifications range.

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- For the moment we do not have confirmed niether sectorial qualifications frameworks nor relevant qualifications descriptors.
- So taking to consideration that Modular programs which will be adapted for delivery through WBL at SMART Farm should be reviewed based on learning outcomes for each qualification we decided to make a comparison of ESCO occupational standards, French sample of qualification description and also existing qualification descriptions for “Sale Manager”.
- Comparison shows that they match each other in approximately 90%.
- We can also compare with the Portuguese sample if available and will have an agreed qualification description for later activities.
- We can do this with other two qualifications “Veterinary” and “Milk and Dairy production Technology” using French and Portuguese samples.

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SALES MANAGER

- **Description**

Sales managers develop sales and targeting strategies for a company. They manage sales teams, allocate sales resources based on the plans, prioritize and follow up on critical leads, develop sales pitches and adjust them over time, and maintain a sales platform to track all leads and sales.

- **Alternative Labels**

Area sales manager, group sales manager, inside sales manager, international sales manager, sales commercial manager, sales coordinator, sales director, sales executive.

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- Essential Skills and Competences
- align efforts towards business development
- analyze business plans
- analyze consumer buying trends
- analyze customer service surveys
- analyze external factors of companies
- analyze internal factors of companies
- analyze work-related written reports
- carry out sales analysis
- coordinate marketing plan actions
- create annual marketing budget

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- define measurable marketing objectives
- develop professional network
- evaluate marketing content
- identify potential markets for companies
- impart business plans to collaborators
- implement sales strategies
- integrate marketing strategies with the global strategy
- integrate strategic foundation in daily performance
- make strategic business decisions
- manage profitability
- manage staff

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- motivate employees
- perform market research
- plan marketing campaigns
- plan marketing strategy
- prepare visual data
- produce sales reports
- set sales goals
- study sales levels of products
- supervise sales activities
- track key performance indicators
- write work-related reports

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- Essential Knowledge
- brand marketing techniques
- consumer goods industry
- content marketing strategy
- corporate social responsibility
- market pricing
- marketing mix
- pricing strategies
- sales argumentation
- sales department processes
- sales strategies

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- **Optional Skills and Competences**
- analyze supply chain strategies
- collaborate in the development of marketing strategies
- communicate with customers
- define geographic sales areas
- estimate profitability
- forecast sales over periods of time
- integrate headquarters' guidelines into local operations
- investigate customer complaints of food products
- liaise with managers
- manage accounts

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- manage budgets
- manage distribution channels
- present arguments persuasively
- recruit personnel
- teach marketing principles
- **Optional Knowledge**
- customer segmentation
- international business
- market research
- public relations
- statistics

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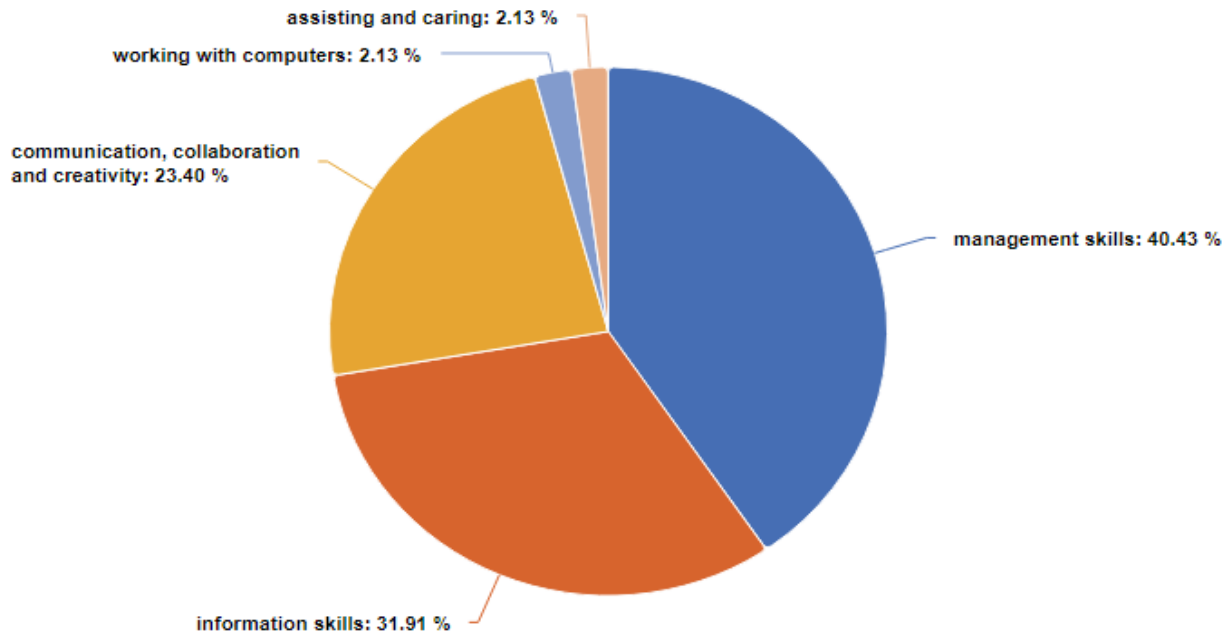
- Skills & Competences



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III. ՈՒՍՈՒՄՆԱԿԱՆ ԳՈՐԾԸՆԹԱՑԻ ՊԼԱՆԸ

N	Առարկաների անվանումը և մոդուլները	Ատեստավորում ըստ կիսամյակների			Ուսանողի ուսումնական բեռնվածությունը (ժամ)					Բաշխումն ըստ կուրսերի և կիսամյակների									
					Պարտադիր բեռնվածություն					2-րդ կուրս				3-րդ կուրս				4-րդ կուրս	
		Քննություն	Ստուգաթուղթ	Կուրսային աշխ.	Ընդամենը	Այդ թվում լաբորատոր			Դասընթացին ուսուցում տրվելիք ժամերի քանակը	3-րդ կիս.	3-րդ, որից ԳՈՒԿ	4-րդ կիս	4-րդ, որից ԳՈՒԿ	5-րդ կիս.	5-րդ, որից ԳՈՒԿ	6-րդ կիս	6-րդ, որից ԳՈՒԿ	7-րդ կիս.	7-րդ, որից ԳՈՒԿ
						Տես	Գործ	Սեմ նար		17 շաբ		22 շաբ.		17 շաբ.		22 շաբ.		20 շաբ.	
	ԸՆԴՀԱՆՈՒՐ ՀՈՒՄԱՆԻՏԱՐ ԵՎ ՍՈՑԻԱԼ ՏՆՏԵՍԱԳԻՏԱԿԱՆ																		
1	Հայոց լեզվի և խոսքի մշակույթի հիմունքներ		3,4տ		72	54	18			36		36							
2	Տնտեսագիտության հիմունքներ		5,6տ		54	31	23							34		20			
3	Քաղաքագիտության և սոցիոլոգիայի հիմունքներ		5,6տ		54	38	16							34		20			
4	Իրավունքի հիմունքներ		3տ		36	19	17			36									
5	Պատմություն		5,6տ		54	34	20							34		20			
6	Ռուսաց լեզու		3,4տ		72	12	60			36		36							
7	Օտար լեզու		3,4տ		72	16	56			36		36							
8	Ֆիզկուլտուրա		3-7տ		136	2	134			34		30		24		26		22	
9	Լանդշաֆտագիտության և էկոլոգիայի հիմունքներ		3տ		36	22	14			36									
10	Քաղաքացիական պաշտպանության և արտակարգ իրավիճակների հիմնահարցեր		6տ		28	24	4									28			
	ԸՆԴԱՄԵՆԸ				**614**	**252**	**362**			**214**		**138**		**126**		**114**		**22**	
	ԱՌԱՆՑՔԱՅԻՆ ՀՄՏՈՒԹՅՈՒՆՆԵՐ																		
1	Հաղորդակցություն		3տ		54	18	36			54									

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2	Անվտանգություն և առաջին օգնություն		3տ		36	12	24			36									
3	Համակարգչային օպերատորություն		5տ		54	12	42							54					
4	Աշխատանքային գործունեության ընդհանուր հմտություններ		5 տ		36	8	28							36					
5	Ձեռներեցություն		7տ		72	22	50											72	
	ԸՆԴԱՄԵՆԸ				**252**	**72**	**180**			**90**				**90**				**72**	
	ԸՆԴՀԱՆՈՒՐ ՄԱՍՆԱԳԻՏԱԿԱՆ																		
1	Անալիտիկ և ֆիզկոլոիդ քիմիա		3տ		72	32	40			72									
2	Կաթի եվ կաթնամթերքի կենսաքիմիա		3տ		90	54	36			90									
3	Կաթի և կաթնամթերքի մանրէակենսաբանություն		4տ		90	42	48					90							
4	Սանիտարիայի և հիգիենայի պահպանում		4տ		94	24	30		40			94	40						
5	Էլեկտրատեխնիկա, էլեկտրոնիկա և ավտոմատիկա		3տ		72	32	40			72									
6	Պրոցեսներ և ապարատներ		3տ		72	32	40			72									
7	Կաթի ընդունման և վերամշակման սարքավորումներ		4 տ		172	36	36		100			172	100						
8	Կաթի և կաթնամթերքի տեղափոխման, լցման, պատրաստման, տարայավորման, փաթեթավորման սարքավորումներ և հոսքագծեր		4տ		192	28	44		120			192	120						
9	Կառավարում		5 տ		90	46	44							90					
10	Աշխատանքային փաստաթղթերի կազմում		6տ		54	24	30									54			
11	Ստանդարտացում, հավաստագրում և չափագիտություն		7տ		54	30	24											54	
12	Կաթնամթերքի սառնարանային տեխնոլոգիա		4տ		92	36	36		20			92	20						
13	Կաթի ընդունման և վերամշակման կազմակերպում		5տ		174	24	30		120					174	120				
	ԸՆԴԱՄԵՆԸ				**1318**	**440**	**478**		**400**	**306**		**640**	**280**	**264**	**120**	**54**		**54**	
	ՀԱՏՈՒԿ ՄԱՍՆԱԳԻՏԱԿԱՆ																		

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1	Կաթի և սերի արտադրության կազմակերպում		5տ		124	24	30		70					124	70				
2	Թթու կաթնամթերքի արտադրության կազմակերպում		6տ		200	44	46		110							200	110		
3	Կաթնաշոռի և կաթնաշոռային արտադրանքի արտադրության կազմակեպում		6տ		144	24	30		90							144	90		
4	Պանրի արտադրության կազմակերպում		7տ		288	36	72		180									288	180
5	Կարագի արտադրության կազմակերպում		7տ		142	30	42		70									142	70
6	Պաղպաղակի արտադրության կազմակերպում		6տ		124	20	34		70							124	70		
7	Կաթնային պահածոների արտադրության կազմակերպում		6տ		152	32	40		80							152	80		
8	Երկրորդային հումքից պատրաստվող կաթնամթերքի տեխնոլոգիա		7տ		64	24	30		10									64	10
	ԸՆԴԱՄԵՆԸ				1238	234	324		680					124	70	620	350	494	260
	ԸՆՏՐՈՎԻ				72													72	
	ՊԱՀՈՒՍՏԱՅԻՆ ԺԱՄԵՐ				34					2		14		8		4		6	
	ԸՆԴԱՄԵՆԸ				2448				1080	612	0	792	280	612	190	792	350	720	260
	ԸՆԴԱՄԵՆԸ																		
	ԽՈՐՀՐԴԱՏՎՈՒԹՅՈՒՆՆԵՐ				250														
	Շաբաթվա ժամերի քանակը									36		36		36		36		36	

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THANK YOU FOR ATTENTION

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Escola Profissional Agrícola D. Dinis - Paiã

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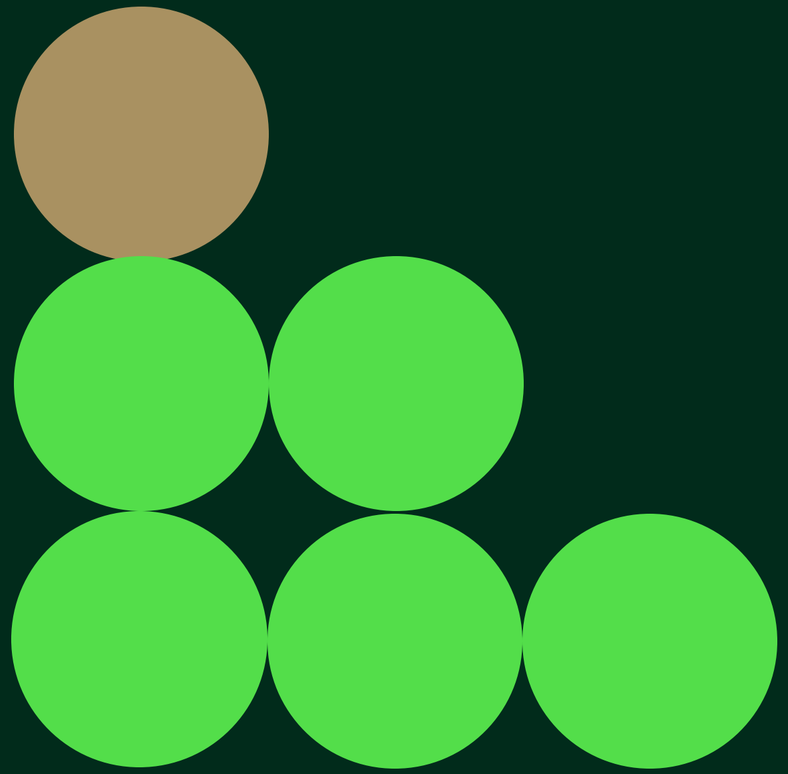
Training offer VET



Basic level

- Ages 15/18
- 9th grade certificate
- Level II VET certificate

Secondary level

- Ages 15/20
- 12th grade certificate
- Level IV VET certificate

Training offer

VET

Basic level

Gardening Operator

Animals in Captivity Handler

Equine Groomer

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Training offer

VET

Secondary level

Agricultural production

Equine Management

Equestrian Tourism

Cooking and pastery

Food Industries

Gardening and planning

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Aiming circular economy

01

Hay production

Need so the school doesn't buy /could be a financial resource with increased production / allows us to have more horses for the Equine Center which is a financial resource

02

Feeding the animals

Need

03

Using produced manure to fertilize fields

Pedagogical purposes / better than using other fertilizers / way of dispose the manure / produces better harvests

04

Vegetable, fruit and flower prodution

Essential for pedagogical purposes / important for transformation and sales / financial resource

05

Using farm and dairy products for selling or transforming and selling

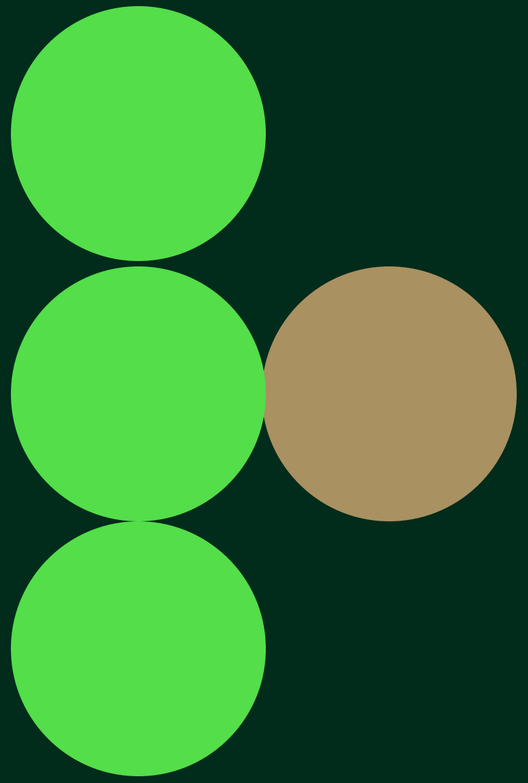
Essential for pedagogical purposes / needed to maintain the production in a profitable level / financial resource

06

Feeding the remainigs of selling/transformation to the animals

Essential for pedagogical purposes / helps reducing the costs related to animal feeding

Courses | Infrastructures



A scale that must be continually balanced

Simultaneously we propose courses that are better adapted to our circle of production/infrastructures and we create/optimize infrastructures and equipment to better serve the courses we minister

We also produce what we need to transform and we find a way to transform whatever we produced

Projects that promote school auto financing

Pedagogical farm

www.epadd-paia.pt

NOVEMBER 2024

Projects that promote school auto financing

Equestrian center

www.epadd-paia.pt

NOVEMBER 2024

Projects that promote school auto financing

Vegetables and fruit minimarket

www.epadd-paia.pt

NOVEMBER 2024

Projects that promote school auto financing

Gourmet project
School made products for sale indoors and in other stores

Projects that promote school auto financing

Starting soon

Hay sale

www.epadd-paia.pt

NOVEMBER 2024

Projects that promote school auto financing

Starting soon

Pedagogical restaurant

www.epadd-paia.pt

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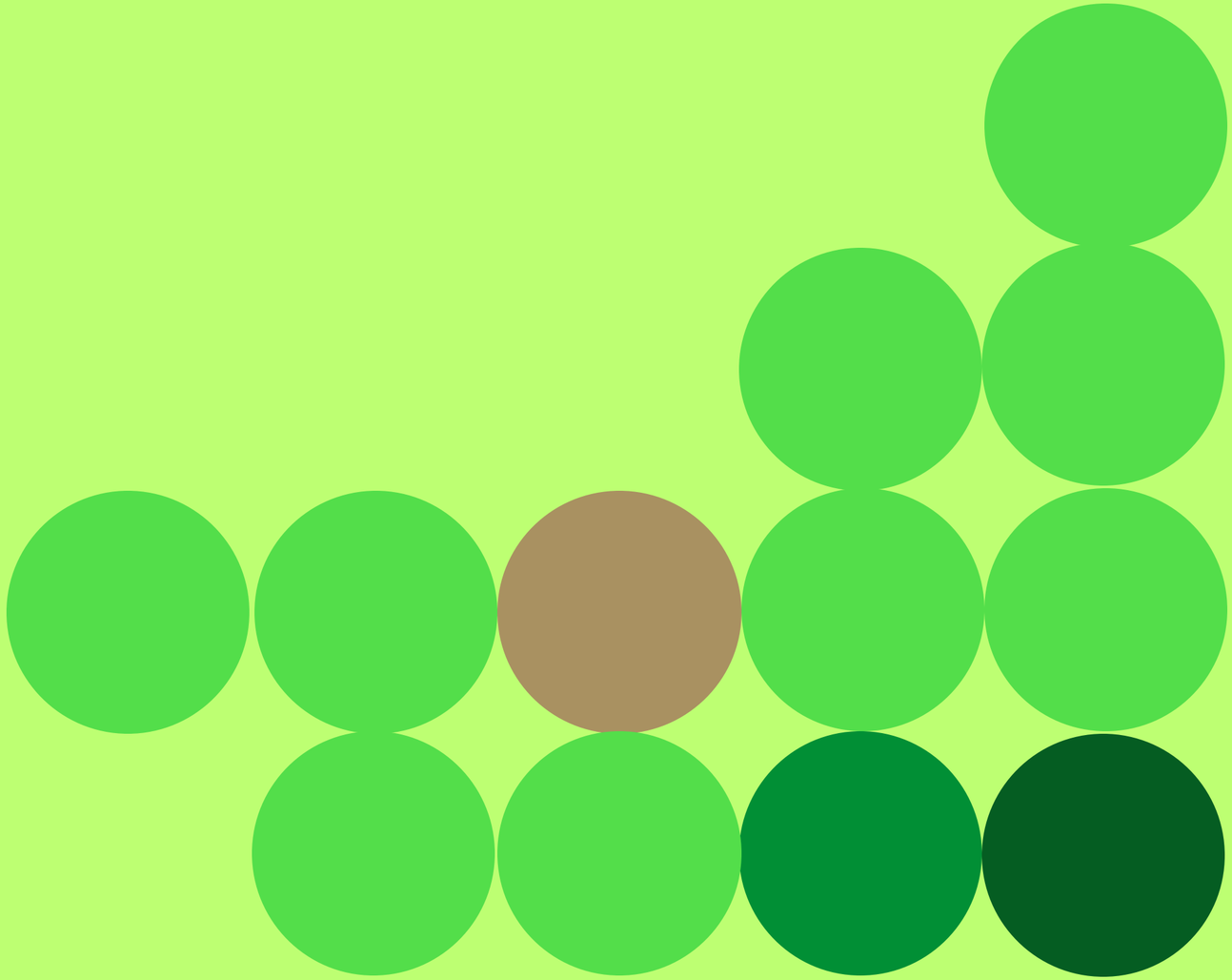
Thank you.



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NOVEMBER 2024

CAPACITY WORKSHOP ON
DRAFT MODEL OF SMART FARM ADJACENT TO VET INSTITUTION

THE PORTUGUESE VET SYSTEM

ALEXANDRA TEIXEIRA

HEAD OF DEPARTMENT FOR EMPLOYMENT AND VOCATIONAL TRAINING
DIRECTORATE GENERAL FOR EMPLOYMENT AND INDUSTRIAL RELATIONS

Lisbon | 26 November 2024

AGENDA

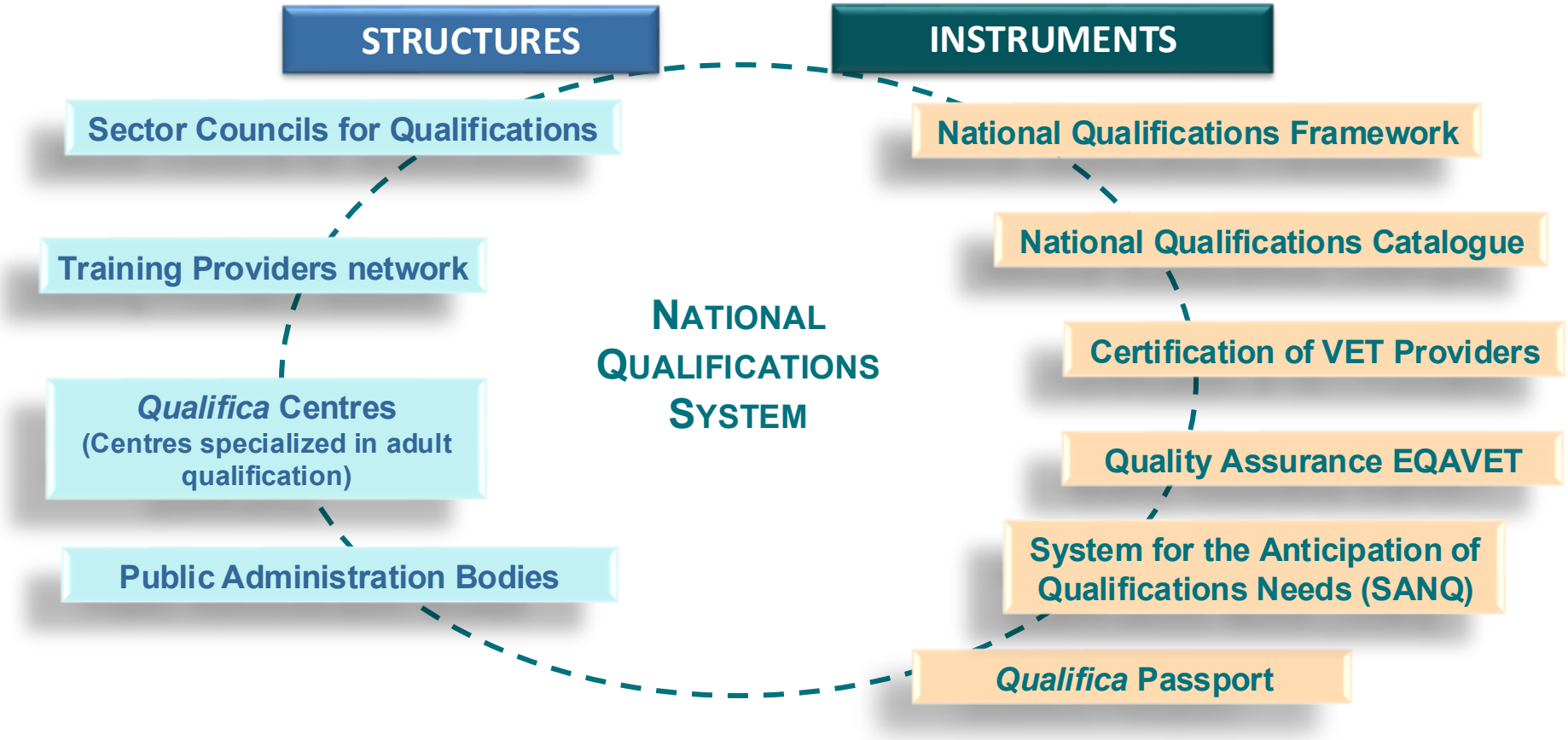
1. The National Qualifications System (NQS)
2. Principles and guidelines of the NQS
3. Structures and instruments of the NQS
4. Vocational education and training offers under the scope of NQS

1. The National Qualifications System (NQS)

- The National Qualifications System (NCS), established in by Decree-Law no 396/2007 of 31 December, was created in 2007 (and updated in 2017) to reform VET within the education system and within the labour market by establishing common objectives, tools and structures.
- Main challenge: to implement a strategic response to the structural skills deficit in the Portuguese population
- Reference objective: generalization of the upper-secondary education.
- In PT the VET system is centrally governed by the ministries responsible for Education and Labour.

2. Principles and guidelines of the NQS

3. Structures and instruments of the NQS



4. Vocational education and training offers under the scope of the NQS

- Training courses (EQF 4) – WBL 19% to 27%
- Apprenticeship courses (EQF 4 and 5) - WBL 40% or more
- Education and training courses for young people (EQF 2) - WBL varies
- Education and training courses for adults (EQF 1 to 4) - WBL 12% to 21%
- Courses of technological specialization (EQF 5) - WBL 30% to 46%
- Specialized artistic courses (EQF 4) - WBL varies
- Certified modular training (EQF 1 to 5) - WBL not applicable

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The SMART Farm Business Plan of Stepanavan State Agricultural College named after Prof. A. Kalantar SNCO of the Ministry of Education, Science and Technology of the Republic of Armenia

imanovation
networking for knowledge

Ministry of Education,
Science, Culture and Sports of
Armenia

ACEP
ARMENIAN CENTER FOR
EDUCATION POLICY
AND MANAGEMENT

LES
SARDIÈRES
SCIENCES ET MÉTIERS DU VIVANT
BOURG-EN-BRESSE

Business plan for the establishment of a "Smart" farm planned under the "Erasmus +" CB4WBL program of Stepanavan State Agricultural College of the Ministry of Education and Science of the Republic of Armenia

The Expectations from the Erasmus+ Program

Within the framework of the "Erasmus+" program, it is planned to organize training in the specialties "Veterinary Medicine", "Milk and Dairy Technology" and "Management" through DUAL educational programs and the establishment of the "SMART" farm, along with its infrastructure, is a key component in organizing this process. It will ensure the integrity of the production-processing-sale chain, with every link contributing to the effective organization of DUAL training.

The purpose of creating the "Smart" **Livestock Farm**

The project envisages establishing a production base adjacent to the college, which will result in the following problems being solved:

Educational component / organization of dual training /

Financial component / provision of additional income /

Production / students'involvement in production processes /

Research work/development of new products in the development perspective

Product Features

The schemed products are:

- Milk
- assorted cheeses
- butter

Milk is considered the primary product for which both climatic and economic conditions are adequate for production.

Organizing the production of "Lori" and "Chanakh" brine cheeses at the college will allow students to make these cheeses on-site and acquire abilities, and why not, skills. Made from milk from Alpine meadows, these cheeses are environmentally friendly and do not contain genetically modified organisms, food additives, or vegetable oils.

The students will be able to creatively approach the organization of cheese production, conduct research, and demonstrate innovative methods. Additionally, they will be able to make suggestions for improving technological processes.

Characteristics of "Chanakh" cheese

"Chanakh" cheese will be produced in accordance with the following standards: four-quart, with a square base, 18-20 cm long, 18-20 cm wide, and 11-12 cm high, weighing 4-6 kg.

Characteristics of "Lori" cheese

"Lori" cheese will be produced in accordance with the following standards: rectangular, square, with slightly convex side surfaces.

Length 26-30 cm, width 14-15 cm, height 11-12 cm, weight 4.5-5.5 kg.

Lori cheese is characterized by its rindless appearance, featuring a smooth and clean surface. It possesses the typical taste and aroma of mature cheese, and its color varies from white to pale yellow.

Sweet Cream Butter

Sweet cream butter will be produced in accordance with the State Standard RATP-3721,19,710-1619,99

Sweet butter is a homogeneous, plastic mass that can be either unsalted or salted. It has a characteristic taste and aroma of butter, with no foreign flavors or odors. The color ranges from white to yellow. The mass fraction of fat in the total mass is not less than 65%, and the mass fraction of moisture is not more than 33.5%. The pH level is between 6.12 and 4.50, and it should be stored at a temperature of 5-10°C.

Whey Butter

Whey butter will be produced in accordance with the RATP 49410611,7870-2017 state standard.

We will make whey butter from the curd obtained during the filtration of whey after cheese production.

Salty-sweet whey butter is a homogeneous, plastic mass, characteristic of butter, as well as with a certain whey flavor, from white to yellow in color. In terms of its qualitative characteristics, it is inferior to cream butter. The mass content of milk fat is 80%, the mass content of moisture is 0.88%, the mineral substances are 0.39%, the temperature is 5-10oC.

Characteristics of production processes

The authorized body plans to build a model college for the Stepanavan State Agricultural College in accordance with European Union standards, with all production and auxiliary facilities. Among other buildings, it is planned to build a model cattle barn (for 25 heads of cattle), as well as educational and production auxiliary buildings for milk processing, and a laboratory.

In the case of organizing production, students can learn about and study the following main production processes on-site:

The main production processes on the farm:

- -animal care
- -feeding/including young animals/
- -manure removal
- -microclimate
- -milking
- All these processes in a Smart farm must be carried out using modern technologies.

Financial Investments and Economic Calculations

Stepanavan State Agricultural College has appropriate space for the "Smart" farm. It is planned to purchase 10 Montbeliard breed heifers, equipment, food above all, and pay salaries with the support of our sponsor (see Table 1). These expenses are planned to be covered by the college's financial resources, or through grants provided by other sponsors.

FINANCIAL INVESTMENTS
Table 1

	Content	Units of Measurement	Price
1	Acquiring calves	dram	12 000 000
2	Equipment	dram	11 474 000
3	Feed	dram	1 875 000
4	Salary	dram	3 000 000
	Total	dram	28 349 000

Cattle Movement

It is planned to purchase 10 heifers initially.

According to the cattle movement, by the end of the second year, we will have 25 heads of cattle, 10 of which are cows and 5 of which are heifers.

Starting from the third year on the farm, we can sell pedigree livestock and carry out selective reproduction.

The correct compilation of the livestock movement is important for organizing the economy and effectively implementing work. This allows you to get an idea of the dynamics of economic development in the coming years.The livestock building is designed for 25 heads.

Cattle Movement

Table2

N	age groups	Reminder		Purchase		Litter		Transportation		Weight gain.	Total access		Sell		Transportation		Fur, fur force		Total access		Reminder	
		head	weight	head	weight	head	weight	head	weight	weight	head	weight	head	weight	head	weight	head	weight	head	weight	head	weight
1	Cow	-	-					10	4000		10	4000									10	4000
2	Heifer	-	-	10	4000						10	4000			10	4000			10	4000	-	-
3	Heifer calf	-	-			5	125			730	5	855									5	855
4	Bull calf	-	-			5	125			925	5	1050					-	-			5	1050
	Total	-	-	10	4000	10	250	10	4000	1655	20	9905			10	4000	-	-	10	4000	20	5905
	II year																					
1	Cow	10	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	4000
2	Heifer	-	-	-	-	-	-	5	1900	200	5	2100	-	-	-	-	-	-	-	-	5	2100
3	2024 heifer	5	855	-	-	-	-	-	-	1045		1045	-	-	5	1900			5	1900	-	-
4	2024. bull	5	1050							1050		1050	5	2100					5	2100		
5	2025 Heifer	-	-	-	-	5	125	-	-	1650	5	1775									5	1775
6	2025 bull	-	-	-	-	5	125			1800	5	1925									5	1925
	Total	20	5905	-	-	10	250	5	1900	5745	15	7895	5	2100	5	1900			10	4000	25	9800

Calculation of Production Volumes

The average annual milk yield of Montbeliard breed cows is 7,000 kg and the calculation of the expected milk yield is reflected in Table 3.

The table also shows the planned production volumes of "Lori" and "Chanakh" cheeses, as well as other products.

CALCULATION OF PRODUCTION VOLUMES Table 3

N	Products	unit of mass / kg	Quantity
1	Milk	kg	70000
2	weight. increase.	kg	1655
3	Cheese Lori	kg	4840
4	Cheese Chanagh	kg	2360
5	Butter	kg	156
6	Whey Butter	kg	258

Feed Requirement

The necessary feed base for the livestock will be provided in various directions. As we have already shown in the production processes section, 6 months of grazing is planned, which can be organized effectively, considering that there are pastures with alpine vegetation adjacent to the college. During this period, it is scheduled to provide concentrate feeds in the morning. The calculation of the feed requirements for the weaning period is presented in Table 4.

ԿԵՐԵՐԻ ՊԱՀԱՆՋԻ ՀԱՇՎԱՉԿ					Table 4		
N	Types of Feed	Չ/մի ավ	cows	Մատղա 2	Price Arm. dram	amount Armenian dram	
						cows	Մատղաշ
1	Grass	kg	21600	9000	35	756 000	315 000
2	Green mass	kg	203500	72000	-	-	-
3	Concentrated feed	kg	9000	4000	120	1 080 000	48 000
4	Pure milk	kg	-	2000	94,67	-	190 000
5	Skimmed milk	kg	-	3000	7,33	-	22 000
6	salt	kg	500	100	120	60 000	12 000
7	Silo corn	kg	27000	-	30	810 000	
	Total					2 706 000	1 044 400

Administrative and professional staff

Although the enterprise and its subdivisions will operate as part of the college, the necessary resources for effective work organization are separated and presented in Tables 5 and 6.

ADMINISTRATIVE STAFF AND SALARY					Table 5
	Category	quantity	Duration /month/	Salary /Armenian dram/	Total Salary /Armenian dram/
1	Deputy Director of Production	1	12	200 000	2 400 000

Production workers

Production workers and their salary						Table 6
	Category	Unit of measurement	Quantity	Duration /month/	Salary /Armenian dram/	Total Salary /Armenian dram/
1	Master of Cheese	person	1	12	200 000	2 400 000
2	Laboratory assistant	person	1	12	150 000	1 80 0000
3	Cattleman operator	person	2	12	150 000	3 600 000
	Total		4	-	-	7 80 0000

Calculation of Costs and Expenses

Cost accounting is important for evaluating the activities of the "SMART" farm, as it allows you to get an idea of individual expense items by product type and try to find ways to save on them. Costing is also important for calculating the cost of a unit of production, as cost is the basis for pricing. The calculation of costs and expenses by product type is presented in Table 7.

Calculation of Costs and Expenses							Table 7	
N	Expense name	dram	Կովեր	Մատղաշ	Պանիր Լոռի	Պանիր Չանախ	Կարագ	Whey Butter
1	food	dram	2706000	1044 400	-	-		
2	Salary	dram	3 620000	1800000	3100000	1100 000	80000	400000
3	Utilities/electricity, gas, water/	dram	100000	50000	350000	150000	15000	5000
4	Telecommunications	dram	90000	15000	50000	15000	-	-
5	Depreciation	dram	500000	100000	250000	130000	10000	5000
6	Barn rent		300000	50000				
7	Office expenses	dram	120000	5000	150000	60000	5000	-
8	Outerwear	dram	50000	25000	100000	30000	5000	5000
9	Transportation	dram	250000	120000	150000	50000	5000	10000
10	Pure milk	dram	-	-	4 908 000	2 103 000	356 000	
11	մոլդ	dram	-	-	38000	16000	-	-
12	Other materials	dram	-	-	25000	10000	-	-
13	Pasture rent	dram	8000	3000	-	-	-	-
14	Low-value and perishable items	dram	25000	15000	50000	10000	5000	5000
15	Advertising	dram	-	-	300000	100000	5000	5000
16	salt	dram			380000	120000		
	Total	dram	7 769 000	3 227 400	9 851 000	3 894 000	486 000	435000

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	Product launch	Unit of mass	cows	Ամառոպաշ	Cheese Lori	Cheese Chanagh	butter	Whey Butter
1	milk	Կգ	70000					
2	litter	head	10					
3	Weight gain	kg		1655				
4	Cheese Lori	kg			4840			
5	Cheese Chanagh	kg				2360		
6	Butter (սերուցքային)	kg					156	
7	Whey Butter	kg						258
	Cost per unit	dram	108,66	1950,1	2035,33	1650,0	3115,38	1686,05
	calf	dram	16 300					

CALCULATION OF PRODUCTION IMPLEMENTATION AND FINANCIAL IMPACTS

In the second year, it is planned to sell 6 heads of young cattle with a total live weight of 2,480 kg, which is expected to generate revenue of 3,720,000 drams. In the subsequent years, as production volumes increase, sales volumes and profits will also rise. These profits will be reinvested to expand production.

CALCULATION OF PRODUCTION IMPLEMENTATION AND FINANCIAL IMPACTS

Table 8

N	Products			Cost price		Revenue				Financial Impact	
		unit of measurement.	quantity	Cost price in Armenian dram	Total cost in Armenian dram	Չ/ միավ	quantity	price In Armenian dram	Total Revenue In Armenian dram	profit	loss
1.	Cheese Lori	kg	4200	2035,33	8 548 386	kg	4200	2200	9240000	691 614	
1.	Cheese Chanagh	kg	2250	1650,0	3 712 500	kg	2250	2000	4500 000	787 500	
1.	butter	kg	156	3115,38	486 000	kg	156	3000	468000	-	18 000
1.	Whey Butter	kg	258	1686,05	435 000	kg	258	3000	774000	339000	
	total	Armenian dram	-	-	13181 886	-	-	-	14982000	1 818 114	18 000
	Profit									1 800 114	
	Profitability									13,66%	
	Income tax									327 260	
	Net profit									1 472 854	

Cash Flows

Proper cash flow planning (inflow and outflow) also has a crucial role in ensuring the stable financial operations of production, as this largely determines the fulfillment of financial obligations.

Data on cash flows in the projected economy are reflected in Table 9.

Cash Flows

Table 9

N	Content	Unit of measurement	Amount for the first year
1.	Money input	dram	
2	Purchase of grant heifers	dram	12 000 000
3	Equipment acquisition	dram	11 474 000
4	Current expenses /food/	dram	1 875 000
5	Current expenses /salary/	dram	3 000 000
6	Total grant	dram	28 349 000
7	Proceeds from sales	dram	14 982 000
8	Total income	dram	43 331 000

1.	money output	dram	amount/year
1.	Purchase of calves	dram	12 000 000
2	Purchase of equipment	dram	11 474 000
3	Purchase of food	dramԴրամ	3 155 400
4	Salary	dram	10 200 000
5	Utility	dram	670 000
6	Telecommunications	dram	170 000
7	Marketing expenses	dram	410 000
8	Office expenses	dram	340 000
9	Outerwear	dram	215 000
10	transportation	dram	585 000
11	Yeast and other materials	dram	89 000
12	Pasture rent	dram	11 000
13	Low-value and perishable items	dram	110 000
14	total output	dram	39 429 400
15	Money balance	dram	3 901 600

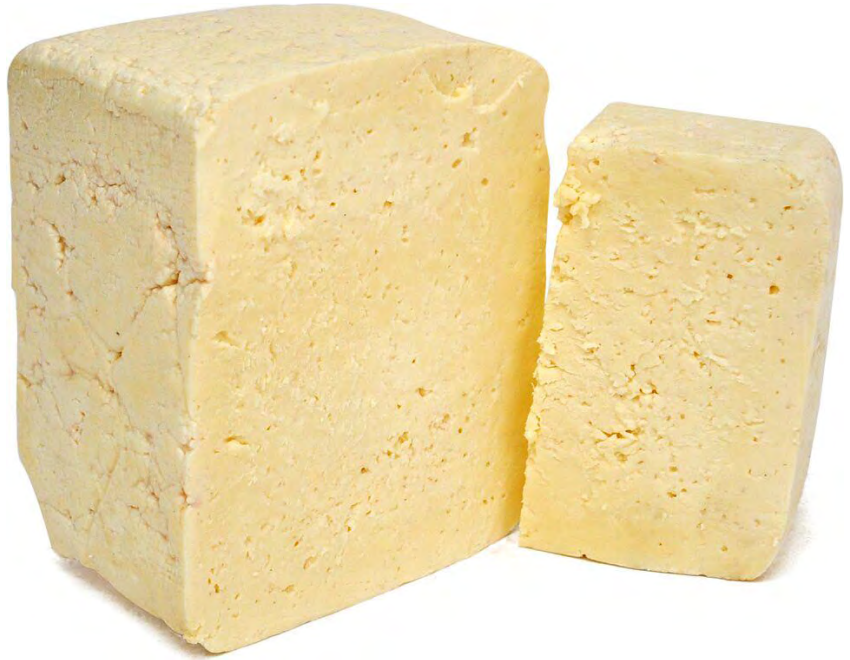
Marketing Plan

Product Description

The following products will be presented on the market:

"Lori" cheese

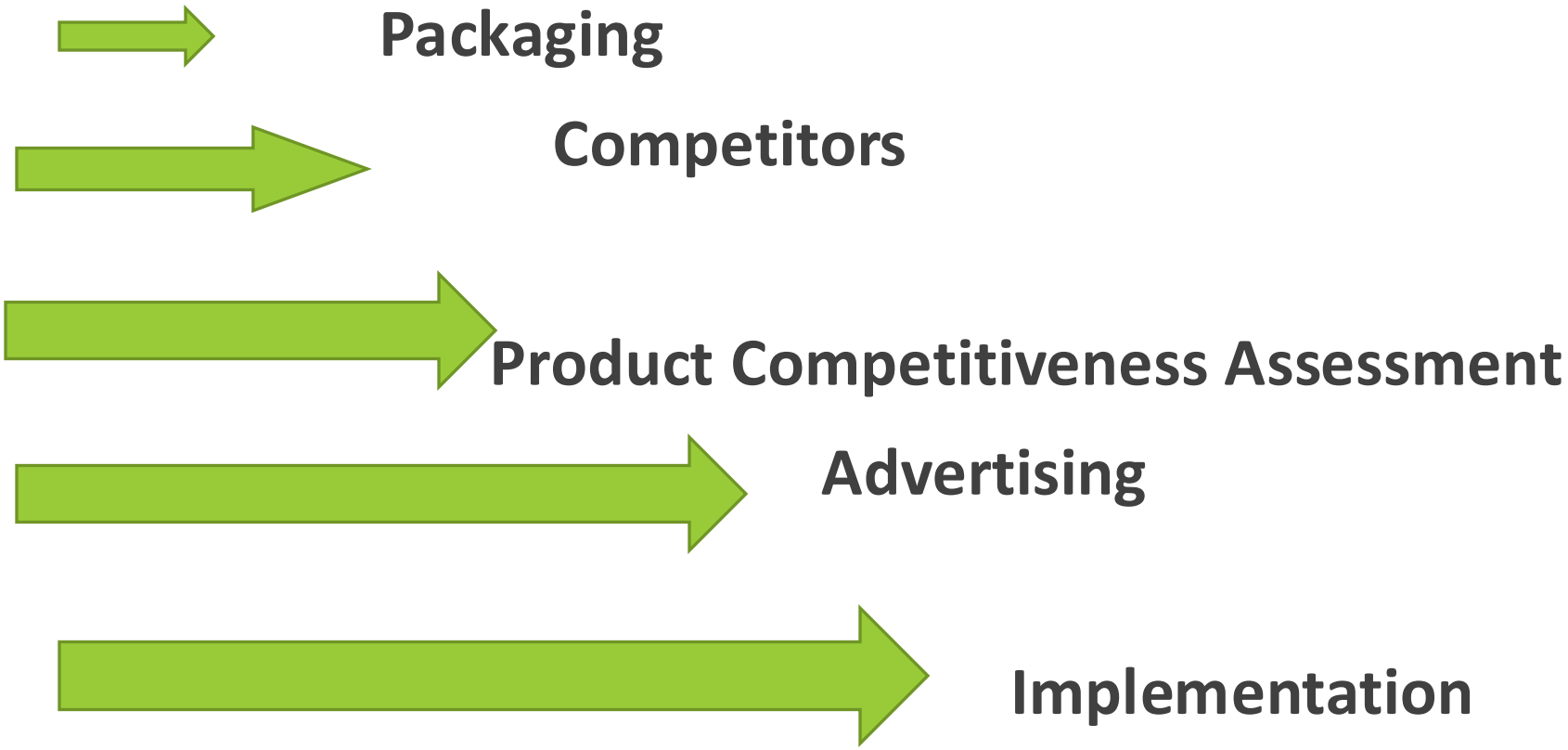
"Chanakh" cheese



Cream butter

Shea butter

Marketing Plan



SWOT Analysis of the Business Plan

S-Strengths	W-Weaknesses
• Availability of highly qualified specialists • Home-produced milk is used to produce dairy products. • Milk and dairy processing equipment that compiles with European standards	• Lack of own arable land
O-Opportunities	**T-Threats**
• Cooperation with milk processing enterprises operating in the region /VIVA, LORVA KAT/ • As a result of the expansion of production, new markets will be included. • Agriculture is a priority sector for the state, therefore, privileges are possible for the further expansion of production.	• Legislative Gaps** • Technological advancements and the progress of competing organizations. • - Severe fluctuations in product prices.

Conclusion

The investment of the "SMART" livestock farm in the "Stepanavan State Agricultural College" SNCO, will be a significant incentive for the implementation of the organization's strategic plan. It will also enhance the training of highly qualified agricultural specialists in the Republic of Armenia, particularly in our region.

This initiative will create an opportunity to establish Dual education system in various agricultural specialties, utilizing the college's own resources and facilities. It aims to transform the college into a center for introducing and disseminating advanced agricultural practices.

Thank You

Co-funded by the Erasmus+ Programme of the European Union

CB4WBL ERASMUS+

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

Project# 101129071 - ERASMUS+ Capacity Building

Lisbon, 26.11.2024

Dr. Arsen Aproyan, ACEP

Co-funded by the Erasmus+ Programme of the European Union

CB4WBL
ERASMUS +

CAPACITY WORKSHOP

to discuss draft model of SMART Farm adjacent to VET institution, including revised State Standards and Modular Programmes

November 25-29, 2024 - Lisbon, Portugal

“Suitable legal form for a SMART Farm adjacent to VET institution”

- Dr. Arsen Aproyan, Expert from Armenian Center for Education Policy and Management

“Suitable legal form for a SMART Farm adjacent to VET institution”

Նորմատիվ իրավական հիմքեր

- **«Ստեփանավանի պրոֆ. Ա. Քալանթարի անվան պետական գյուղատնտեսական քոլեջ» ՊՈԱԿ կանոնադրություն**
- ՀՀ Քաղաքացիական օրենսգիրք
- ՊՈԱԿ-ների մասին ՀՀ օրենք
- Հիմնադրամների մասին ՀՀ օրենք
- Գյուղատնտեսական կոոպերատիվների մասին ՀՀ օրենք
- Այլ նորմատիվ-իրավական ակտեր

Normative legal bases

- **"Stepanavan State agricultural college of professor A. Kalantar" SNCO Charter**
- RA Civil Code
- Law of the Republic of Armenia on SNCOs
- RA Law on Foundations
- RA law on agricultural cooperatives
- Other normative-legal acts

“Suitable legal form for a SMART Farm adjacent to VET institution”

«Ստեփանավանի պրոֆ. Ա. Քալանթարի անվան պետական գյուղատնտեսական քոլեջ» ՊՈԱԿ կանոնադրություն

Հոդված 16. Քոլեջը կարող է Հայաստանի Հանրապետության օրենսդրությամբ սահմանված կարգով իրականացնել ձեռնարկատիրական գործունեության հետևյալ տեսակները՝...

7) ուսումնաարտադրական, արտադրական գործունեություն ֆ սպասարկման ծառայությունների իրականացում.

Հոդված 17. Ձեռնարկատիրական գործունեության իրականացման համար քոլեջն իրավունք ունի հիմնադրի որոշմամբ ստեղծելու տնտեսական ընկերություններ կամ դառնալ նրանց մասնակից:

"Stepanavan State agricultural college of professor A. Kalantar" SNCO Charter

Article 16. The college can carry out the following types of business activities by the procedure established by the legislation of the Republic of Armenia:

7) implementation of educational, production activities, and maintenance services;

Article 17. To carry out entrepreneurial activities, the college has the right to create economic companies or become a participant in them by the decision of the founder.

“Suitable legal form for a SMART Farm adjacent to VET institution”

- ՊՈԱԿ թե՞ Հիմնադրամ
- Հիմնադրամ թե՞ ՍՊԸ
- Հիմնադրամ թե՞ գյուղատնտեսական կոոպերատիվ

- SNCO or Foundation?
- Foundation or LLC?
- A Foundation or an Agricultural Cooperative?

“Suitable legal form for a SMART Farm adjacent to VET institution”

Հիմնադրամ

Հիմնադրամ է համարվում քաղաքացիների եւ (կամ) իրավաբանական անձանց կամավոր գույքային վճարների հիման վրա ստեղծված եւ անդամություն չունեցող ոչ առեւտրային կազմակերպությունը, որը հետապնդում է սոցիալական, բարեգործական, մշակութային, կրթական, գիտական, առողջապահական, բնապահպանական եւ (կամ) այլ հանրօգուտ նպատակներ:	Հիմնադրամի ստեղծումը հիմնադրման միջոցով իրականացվում է հիմնադիրների որոշմամբ: Հիմնադրամը կարող է ստեղծվել նաև մեկ անձի կողմից: ՀՀ կամ համայնքի կողմից կամ դրանց մասնակցությամբ հիմնադրամի հիմնադրումն իրականացվում է համապատասխանաբար Հայաստանի Հանրապետության կառավարության որոշմամբ կամ համայնքի ղեկավարի որոշմամբ՝ համայնքի ավագանու հաստատմամբ:	Հիմնադրամն իր գործունեությունն իրականացնում է. 1) հոգաբարձուների խորհուրդի, 2) կառավարիչի (տնօրեն, գործադիր տնօրեն կամ գլխավոր տնօրեն) միջոցով: Հիմնադրամի կանոնադրությամբ կարող են սահմանվել նաև այլ մարմիններ (այդ թվում՝ կոլեգիալ գործադիր մարմիններ):	Հիմնադրամի կողմից ձեռնարկատիրական գործունեության արդյունքում գոյացած շահույթը ծառայում է հիմնադրամի նպատակների իրականացմանը:

Foundation

A foundation is a non-profit organization established on the basis of voluntary property contributions of citizens and/or legal entities and without membership, which pursues social, charitable, cultural, educational, scientific, health, environmental and/or other public benefit goals.	Creation of the fund through establishment is carried out by the decision of the founders. A foundation can also be established by one person. The foundation of the foundation by the Republic of Armenia or the community or with their participation is carried out by the decision of the Government of the Republic of Armenia or by the decision of the head of the community with the approval of the council of elders.	The Foundation carries out its activities. 1) of the board of trustees, 2) through the manager (director, executive director or general director). Other bodies (including collegial executive bodies) may be defined by the Foundation's charter.	The profit generated by the fund as a result of entrepreneurial activity serves the realization of the goals of the fund.

Հիմնադրամի խնդիրները
Problems of the Foundation

- Գրանցման գործընթացը,
- Միևնույն հարկային պարտավորություններ /շահութահարկ, ԱԱՀ/,
- Գնումների պետական գործընթաց
- Արտադրանքի իրացման խնդիրներ
- Մարկետինգային խնդիրներ

- The registration process,
- The same tax obligations /profit tax, VAT/,
- Government procurement process
- Product realization issues
- Marketing issues

Suitable legal form for a SMART Farm adjacent to VET institution

Գյուղատնտեսական կոոպերատիվ

Կոոպերատիվ է համարվում քաղաքացիների եւ իրավաբանական անձանց անդամության վրա հիմնված ու իր անդամների գույքային փայավճարների միավորման միջոցով մասնակիցների նյութական եւ այլ կարիքների բավարարման նպատակով ստեղծված կամավոր միավորումը:	Կոոպերատիվը կարող է ստեղծվել նոր կոոպերատիվի հիմնադրման կամ իրավաբանական անձանց վերակազմակերպման միջոցով Կոոպերատիվն ստեղծվում է առնվազն հինգ անդամով	- Կոոպերատիվի անդամների ընդհանուր ժողով - Գործադիր մարմին - Դիտորդ խորհուրդ (50-ից ավել անդամի դեպքում)	Տարեկան կոոպերատիվ ավելցուկը ըստ հաջորդականության բաշխվում է հետևյալ ուղղություններով՝ - անբաժանելի ֆոնդի վերականգնում - անբաժանելի ֆոնդին 20% հատուցում: Կոոպերատիվ շահույթը համապատասխան հարկումից հետո ուղղվում է կոոպերատիվի անբաժանելի ֆոնդ :

Suitable legal form for a SMART Farm adjacent to VET institution

Agricultural cooperative

A cooperative is considered to be a voluntary association based on the membership of citizens and legal entities and created for the purpose of meeting the material and other needs of the participants through the pooling of property fees of its members.	A cooperative may be established by founding a new cooperative or by reorganizing legal entities A cooperative is established with at least five members	- General meeting of cooperative members - Executive body - Supervisory Board (with more than 50 members)	The annual cooperative surplus is distributed according to the following directions: - restoration of the indivisible fund - 20% compensation to the indivisible fund. Cooperative profits, after appropriate taxation, are allocated to the indivisible fund of the cooperative.

Գյուղատնտեսական կոոպերատիվի հարցերը

Issue of the Agricultural cooperative

- Գրանցման գործընթացի մատչելիություն
- Հարկային արտոնություններ,
- Արտադրանքի իրացման մատչելիություն
- Մարկետինգային ազատություն

- Accessibility of the registration process
- Tax benefits,
- Product availability
- Marketing freedom

Suitable legal form for a SMART Farm adjacent to VET institution

Գյուղատնտեսական կոոպերացիայի բնագավառում պետական աջակցության ուղղությունները

Directions of state support in the field of agricultural cooperation

1. Պետությունը սուբսիդավորման, նպատակային ծրագրերի իրագործման, բարենպաստ օրենսդրական դաշտի ձեւավորման միջոցով խթանում է գյուղատնտեսական կոոպերացիայի զարգացումը, ագրոպարենային համակարգում կոոպերատիվների ստեղծումը, վերջիններիս գիտական, կադրային, տեղեկատվական եւ խորհրդատվական ապահովումը:

2. Գյուղատնտեսական կոոպերատիվների աջակցությունն իրականացվում է պետական ծրագրով, որի մշակման եւ հաստատման կարգը սահմանում է Հայաստանի Հանրապետության կառավարությունը...

1. The state promotes the development of agricultural cooperation, the creation of cooperatives in the agro-food system, scientific, personnel, informational, and consulting support through subsidies, the implementation of targeted programs, and the formation of a favorable legislative framework.

2. Agricultural cooperatives are supported by a state program, the procedure for development and approval of which is determined by the Government of the Republic of Armenia...

Suitable legal form for a SMART Farm adjacent to VET institution

SMART ՁԵՌՆԱՐԿԱՏԻՐԱԿԱՆ ԳՈՐԾՈՒՆԵՈՒԹՅՈՒՆԸ
SMART ENTREPRENEURIAL ACTIVITY

- ✓ Ձեռնարկատիրական գործունեության իրավաբանական անձի տեսակի որոշում, փաստաթղթավորում, գրանցում
- ✓ Բիզնես պլանի մշակում,
- ✓ Աշխատանքային պլանի ստեղծում,
- ✓ Ռեսուրսների գնահատում, պլանավորում,
- ✓ Իրավաբանական անձի գրանցումից հետո գործունեության սկիզբ
- ✓ Կենսունակության, զարգացման պլան,
- ✓ Աջակցության պլանավորում, շարունակականության ապահովում:

- ✓ Determination, documentation, and registration of the type of legal entity of entrepreneurial activity
- ✓ Business plan development,
- ✓ Creating a work plan,
- ✓ Resource assessment, planning,
- ✓ Start of activity after registration of a legal entity
- ✓ Viability, development plan,
- ✓ Support planning, and continuity assurance.

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Շնորհակալություն ուշադրության համար
Thank you for your attention

https://www.cb4wbl.com/en/

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THE PRESENTATION OF THE SMART FARM PROJECT OF Stepanavan State Agricultural College named after Prof. A. Kalantar (SNCO) of the Ministry of Education, Science and Technology of the Republic of Armenia

imanovation
networking for knowledge

Ministry of Education, Science, Culture and Sports of Armenia

ACEP
ARMENIAN CENTER FOR EDUCATION POLICY AND MANAGEMENT

LES SARDIÈRES
SCIENCES ET MÉTIERS DU VIVANT
BOURG-EN-BRESSE

Content

- Favorable conditions of the legislative field

  Organization of the educational process

- Challenges

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Legislative reforms of the VET system

- Introduction of Dual program in the VET system
- Improvement of methodology
- Public-private partnership
- Involvement of social partners
- Expanding entrepreneurial activities of collegesյնում

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Legislative Reforms of the VET System

Work-based learning is structured in the following ways:

I. Dual education is a form of organizing learning at an educational system's level according to the qualification's specifics. It is carried out simultaneously at a higher educational institution and the employer, including in training centers or in an environment adapted to the real workplace, ensuring the acquisition of work skills corresponding to the qualification and occupation.

II. In the case of Dual education, the primary focus is on learning within the workplace, which is the main component of the educational program. The outcomes of this program are assessed in a practical setting with the participation of employers.

III. To organize work-based learning, the vocational education institution may establish a business company independently or in partnership, according to the qualifications and occupations outlined in the educational program it offers. This can be done by the cases and procedures specified in Parts 5 and 6 of Article 37 of the VET Law.

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Development of Educational Programs and Curriculum

- Work-based learning is implemented following the state educational standards by

  Veterinary medicine

  - Milk and dairy technology
  - Management specialties.
- When developing work-based learning programs, priority was given to the practical component (up to 70%).
- A document package for implementing the work-based learning system has been developed.

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Organization of WBL

- Guide to organizing WBL
- Practical training schedule
- College support for organizing WBL
- Framework for organizing WBL in the enterprise
- Evaluation of the results of the WBL
- Students will have a complete understanding of the profession and will actively participate in the educational process.

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Organization of Practical Training on the Farm

- The practical training supervisor introduces students to the work environment and safety rules.
- The chair discusses the annual WBL schedule, which is adaptive/flexible.
- According to the specifics of practical training, external rotation will be implemented.
- The coordinator evaluates the student's practical skills and behavior at the end of the practical training module.
- Full use of the existing material and technical base

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Evaluation of WBL Results

- The evaluation of students participating in the WBL program is conducted at the enterprise based on their work performance and the results they have achieved./Procedure for organizing the WBL/
- The assessment criteria correspond to the qualifications of the specialist in secondary vocational education of the National Qualifications Framework.
- The assessment is carried out using an appropriate assessment scale.
- The final evaluation of the module is made based on the average score given by the lecturer and the coordinator.

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Problems of WBL

- Lack of mentors' teaching skills /mentor training: pedagogical and professional/
- Modules that cannot be implemented on the farm, ensuring their availability and quality
- Clarification of issues related to student safety/legal etc.
- Risk of causing material damage by a student during practical training

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Thank You

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