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## LIFELONG LEARNING AS A PILLAR OF ENTREPRENEURSHIP IN THE GREEK COUNTRYSIDE

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# LIFELONG LEARNING AS A PILLAR OF ENTREPRENEURSHIP IN THE GREEK COUNTRYSIDE

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The development of business and innovation potential in the countryside depends on the availability of sufficient structures providing knowledge and skills on new technologies, while the most effective training process for farmers is an education based on the principles of experiential learning and adult education. The aim of this article is, based on the results of a nation-wide research addressed to farmers, instructors and head trainers, to explore and submit specific proposals for the reinforcement of entrepreneurship in the Greek countryside.

More specifically, the aims sought through the results of this research, which was conducted among five hundred and ninety (590) trainee farmers, three hundred and twenty (320) instructors and fifty-eight (58) head trainers, are to bring forward the main attributes of farmers who wish to engage in entrepreneurial activities of the secondary and tertiary sector, to explore the aspects of the educational and administrative resources in the Greek countryside, to reveal their educational needs for successful business ventures and finally to put forward specific proposals both for promoting farmers' education and for the support of farmers who wish to enter the business field.

**Key words:** Entrepreneurship, exploring educational needs, lifelong learning, Greek countryside.

## **1. Introduction**

The National Strategic Plan for the Rural Development in Greece aims mainly at improving the competitiveness of the primary sector and at the same time promoting the sustainable management of natural resources and creating the necessary requirements to render the Greek countryside more attractive as a place for staying and doing business (Ministry for Rural Development and Foods, 2009<sup>i</sup>:25-27). However, the low educational background of those engaging in the primary sector is one of the most important factors preventing the competitiveness of the Greek countryside. This is illustrated also by the available data indicating that 69.5% of the those engaging in the aforementioned sector have graduated grammar school, 14.3% has attended only some classes of the grammar school or has never been to school, 15% are secondary education graduates or at least junior high school graduates and just 1.2% are university or college graduates. Furthermore, interesting are also the data indicating the low participation of those engaging in the primary sector in education and training as well as in lifelong learning. More particularly, the participation of farmers in basic education during the 1999-2000 year amounted to 2.9%, whereas the corresponding participation in lifelong learning in 2004 amounted to 2.1% (participants aged 25-64) (Ministry for Rural Development and Foods, 2009<sup>i</sup>:4). The low competitiveness

of the enterprises engaging in the Greek countryside is attributed to a great extent to the insufficient education of the employees and (potential) entrepreneurs (Piasecki et al, 2004:105, Venetsanopoulou, 2006:178); this phenomenon is mainly attributed to the mistaken belief of farmers that agricultural education is not a means for achieving social targets (Kanteres and Koutsouris, 2000:215). The limited entrepreneurship of the European countryside in combination with the small local market, the lack of capitals, the difficulty to access other markets, etc. are all attributed to the features of human resources (L. Lambrianidis, 2004:1, Skuras, Stathopoulou, 2000:17, Tervo, 2004:17).

At the same time, the available researches indicate one of the most important financial and social changes that took place during the last decades in the country's rural areas and mainly in regions where there were good possibilities for engaging also in non-agricultural activities, i.e. the increase of multi-employment of the agricultural households. Just 12.3% of the head trainers of the exploitations engage merely in agricultural activities, 68.3% of the head trainers of agricultural exploitations dedicate up to 50% of their available time to agriculture, while 24.7% of them stated engaging in parallel in other profitable activities too (Ministry for Rural Development and Foods, 2009<sup>ii</sup>:41). Still, new conditions applying worldwide urge farmers to use their agricultural exploitations for other activities as well (manufacture, agritourism, etc) rendering the need for specialized training in fields related to promoting and differentiating financial activities, producing quality products of notable added value, promoting innovation and introducing and using IT, etc. (Ministry for Rural Development and Foods 2009<sup>ii</sup>:177). Therefore, investing in education and vocational training of those human resources engaging in the Greek agricultural sector is one of the most appropriate policies since it has been proven that such education/training is related to the following two parameters: i) the fact that all changes in agricultural activity are actually changes related to quality issues, which can be affected by acquiring the necessary knowledge and skills and ii) the fact that a great percentage of the above exploitations needs to differentiate its activities in order to survive in the current competitive environment and to turn to other production sectors that require developing new skills (Gidarakou, et al, 2000: 241).

During the past fifteen years the Ministry for Rural Development and Foods (former Ministry for Agriculture) has been the major institution providing training and information to the country's agricultural population through the Organization for Agricultural Vocational Training, Education and Employment "DIMITRA" operating under the Ministry's auspices. Especially important was also the contribution of the Ministry for Lifelong Learning and Religious Affairs though the institutions subject to it, such as the Vocational Training Institutes subject to the Organization for Vocational Training and Education and the Courses offered by the General Secretariat for Lifelong Training, which are supervised by the Institute for Lifelong Training of Adults. At the same time, educational courses related to primary production were also offered by the Centers for Vocational Training operating under the auspices of the Ministry for Labor and Social Insurance and the Technical Vocational Training of the Secondary Education subject to the Ministry for Lifelong Learning and Religious Affairs. Finally, to the organizations that have offered educational courses aimed for the agricultural population of the country belong also the Panhellenic Confederation for Agricultural Associations, the Employment and Recruitment Organization, the Greek Productivity Center (ELKEPA) and the Agricultural Bank of Greece (ATE).

This paper attempts firstly to illustrate the main features of farmers who have expressed their intention to engage in business activities in the secondary and/or tertiary sector, secondly to identify the features of the available educational and administrative workforces in the Greek countryside, thirdly to demonstrate the educational needs of farmers in order to take appropriate business initiatives and fourthly to submit particular proposals both for the

reinforcement of agricultural education and for the support of those farmers who wish to commence business.

## **2. Methodology**

The Programme "Farmer Training for the Taking of Action in the Secondary and Tertiary Sectors of the Economy – ISIODOS" was implemented during the 2005 to 2008 period via the organisation of 787 learning groups with a duration of 150 hours, which trained a total of 12,282 farmers. The Thematic Modules of the Programme included the following: a) the Agricultural Sector in Greece, Europe and the World, Current state - Prospects, b) Sections of the Secondary and Tertiary Sectors related to the Agricultural field, c) Market Economics – Entrepreneurship – Enterprises, d) Organisation and Business Administration Funding – Sources, e) Negotiation Techniques – Sales – Trade and f) Use of New Technologies. The learning groups were created, in their majority, in remote agricultural areas in forty eight (48) Prefectures of Greece, seeking and -to a large degree- achieving the unhindered participation of farmers, since they required no transit and absence from agricultural activities, combining education with everyday farmer practices.

A sample number of farmers trained in the "ISIODOS" Programme across Greece, as well as the Education Officials and trainers of the "ISIODOS" Programme for each Prefecture participated in the study, all of whom were asked to fill in the questionnaires, which were specially designed for the purposes of the study. The questionnaires were sent by mail to the Education Officials of the Programme, which distributed them and then collected them from the farmer population sample that corresponded to their geographical area.

Taking into account the total number of trainees under the "ISIODOS" Programme, which rose to 11,925 trainees (June 2008) and setting the acceptable statistical error for the study underway to  $\pm 4\%$ , the sample size rose to 572 farmer trainees. This population was augmented by 10% as a replacement sample in order to replace any farmers that refused or were unable to participate in the study underway, resulting in the total sample size which rose to 629 farmer trainees. The distribution of the totality of the sample followed the stratified sampling procedure where the sample's total population was allocated to the thirteen (13) Regions and following that to the individual fifty one (51) Prefectures, depending on the foreseen percentage of accumulation or creation of "ISIODOS" Programme learning groups. Following that, the portion of the sample that corresponded to each Periphery was distributed to the individual Prefectures.

As far as the question type was concerned, closed questions were mainly preferred, which are questions with already formulated answers, taking into account, firstly, the ease of use by those participating in the study, given that pre-coded questions do not tire those polled, and secondly, the correlation of the variables. Specifically, the questions on the questionnaires were divided into tactical scale questions and multiple choice questions.

## **3. Results of the Field Research**

### *3.1 Main characteristics of farmers, trainers and organizers of the Programme.*

The total number of farmers that were trained under the "ISIODOS" Programme and who also participated in the research rose to 590 people, which corresponds to a 93.8% response rate. According to the results of the sampling study, as far as the trainees gender is concerned, 394 of those asked were men (66.8%) and 168 were women (28.5%), while there was no gender specified by 28 people (4.7%) (cf. Table 1). The age of the trainees

varies, from 20 to 79 years of age, the average being 40 (40.37 ± 10.719). Out of 590 people, a majority of 40% (236 people) stated that their highest completed education level was the "Senior High School", 9.7% (57 people) had completed studies at a "Technical Professional School" while only 7.5% (44 people) had completed studies with a "Higher Education (TEI/HEI)" institute. It is worth mentioning that 23.2% (137 people) have stated the Junior High School as the highest level of education completed and 18% "Grammar" school (106 people) while 1.6% (9 people) of the trainees declined to answer (cf. Table 2). As far as the professional training level of the trainees was concerned, it was found that only 70 farmers (11.9% of those asked) stated they had completed some form of professional training. These are divided into farmers that have completed an Agricultural Training Centre (KEGE) Programme (5.8% of the total of those asked) and a Vocational Training Institute (IEK) (1.5% of the total of those asked) followed by those that have completed a Training Programme at a Vocational Training Centre (KEK), Practical Agricultural School and an Agricultural Association School (1.5%, 0.8% and 0.3% respectively) (cf. Table 2).

Examining the marital status of the farmers that were trained in the "ISIODOS" Programme, we observe that out of 590 people in the sample of the farmers that participated in the "ISIODOS" Programme, 29.8% out of them stated they were unmarried, while the majority stated they were married (66.6%) (the remaining categories make up 2.6%) (cf. Table 1). As far as the existence of children in the family is concerned, it was found that 62.4% (368 people) responded positively, 27.6% (163 people) of the farmers stated they had no children, while 10% of those asked did not answer this question (59 people) (cf. Table 1). The percentage of farmers that stated they were employing their children as well in their activities rises to 12.0%, a negative answer to this question was given by 46.7% while 13.9% answered "other", an answer that covers those parent farmers whose children are not at an age appropriate for employment (cf. Table1).

Table 1.

Gender	Number Of Farmers	Marital Status	Number Of Farmers	Duration of occupation in farming	Number Of Farmers	Professional experience	Number Of Farmers	Children employment	Number Of Farmers
Female	168	Married	393	< 3 months	46	< 3 years	70	Yes	44
Male	394	Not Married	176	> 3 months < 6 months	112	> 3 years < 10 years	205	No	172
NA	28	Divorced	9	> 6 months < 9 months	143	> 11 years < 20 years	151	NA	323
Total	590	Widowed	5	> 9 months < 12 months	265	> 20 years	139	Total	590
		Other	2	NA	24	NA	25		
		NA	5	Total	590	Total	590		
		Total	590						

Source: Field Research

Afterwards, the farmer's professional experience was assessed for those farmers participating in the "ISIODOS" Programme; the question "How many years have you been employed as a farmer?" was answered as follows: out of the 590 farmers asked, 11.9% (70 farmers) stated that they had been doing so for "Less that 3 years", 34.7% (205 of those asked) stated that they had been doing so for "3 to 10 years", 25.6% (151 farmers) stated that they had been doing so for "11 to 20 years" and 23.6% (139 of those asked) stated that they had been doing so for "More than 20 years" (the remaining 4.2% did not give an answer) (cf. Table 1). Concerning the duration of agricultural activities for farmers participating in the "ISIODOS" Programme throughout the year, examining the number of months that these farmers are occupied in the agricultural profession, the majority responded that they work for 9 to 12 months (44.9% of those asked), 24.2% of those asked stated that they work for 6 to 9 months, 19% of those asked stated that they work for 3 to 6

months while 7.8% of those asked stated that they work in agriculture for less than 3 months per year (cf. Table 1).

Studying net income from all sources for the farmers participating in the "ISIODOS" Programme, it can be seen that out of 567 farmers trained through the "ISIODOS" Programme that answered this question, 22.5% (133 farmers) stated that they earn an annual income of less than 6,000 euros, 37.1% (219 farmers) stated that they earn an annual income of 6,000 to 15,000 euros, 23.7% (140 farmers) stated that they earn an annual income of 15,000 to 25,000 euros and 9.8% (58 farmers) stated that they earn an annual income of 25,000 to 40,000 euros (with 4.1% of those asked making no statement) (cf. Table 2).

Respectively, as far as net annual income from agricultural production is concerned (after deducting any expenses), out of 590 farmers in the sample that were asked, 26,3% (155 farmers) stated that they earn a net annual income from agricultural production of less than 4,000 euros, 31,2% (184 farmers) stated that they earn a net annual income from agricultural production of 4,000 to 10,000 euros, 30,3% (179 farmers) stated that they earn a net annual income from agricultural production of 10,000 to 25,000 euros, 5,4% (32 farmers) stated that they earn a net annual income from agricultural production of 25,000 to 40.000 euros, 1,2% (7 farmers) stated that they earn a net annual income from agricultural production of more than 40.000 euros per year, while the remaining 5,6% (33 farmers) consists of those who did not answer this question (cf. Table 2). When asked about their intent to undertake entrepreneurial activity in general, in either the secondary or the tertiary sector after the end of their training in that particular training Programme, the vast majority gave a positive answer. Specifically, 91.9% answered positively, in contrast to the remaining 8.1% of them who answered negatively to this question (cf. Table 2).

Table 2.

Alumni	Number Of Farmers	vocational training	Number Of Farmers	Net income from all sources	Number Of Farmers	Net income from agricultural production	Number Of Farmers	Intention to commence	Number Of Farmers
None	1	Practical school	5	< 6.000	133	< 4.000	155	Yes	542
Grammar school	106	KEGE	34	6.000-15.000	219	4.000-10.000	184	No	48
Junior High School	137	Private School / IEK	14	15.000-25.000	140	10.000-25.000	179	NA	0
Senior High School	236	KEK (Vocational training)	9	25.000-40.000	58	25.000-40.000	32	Total	590
Technical Professional School	57	Association School	2	> 40.000	16	> 40.000	7		
University / Technical Educational Institute	44	Other	6	NA	24	NA	33		
NA	9	NA	520	Total	590	Total	590		
Total	590	Total	590						

Source: Field Research

While examining the degree of penetration of new information and communication technologies among the farmer population that was trained via the "ISIODOS" Programme, we focussed on the numbers of those using a computer, having an e-mail and using the internet. The data collected for the study showed that 45.3% (267 farmers) of the farmers in the sample stated that they do not use a computer at all, 23.4% (138 farmers) of the farmers in the sample stated that they use a computer a little, 13.6% (80 farmers) of the sample stated that they use a computer at an average frequency, 10.5% (64 farmers) of the

farmers in the sample stated that they use one quite often while only 6.4% (38 farmers) of the farmers in the sample stated that they use a computer very often (0.5% of the farmers in the sample did not answer this question).

Concerning the ownership of an e-mail address, and by extension the use of electronic mailing, it arose that 73.7% (435 farmers) of the sample participants do not have an e-mail and consequently do not use electronic mailing. Only 18.8% (111 farmers) of those asked in the sample answered that they own an e-mail address while 7.5% (46 farmers) of the population of the sample did not answer this question (cf. Table 3). The farmers participating in this study were also asked whether they use the internet and how often they do so. The answers of the farmers in the sample revealed that 38.1% (225 farmers) do not use the internet, 22.6% (163 farmers) use the internet rarely, 9.7% (57 farmers) use the internet 2 to 3 times per month, 11.9% (70 farmers) stated that they use the internet 2 to 3 times per week, 8.0% (47 farmers) stated that they use the internet once per day, while just 2.7% (16 farmers) of the farmers in the study's sample stated that they use the internet several times per day (2.0%, i.e. 12 farmers did not answer this question).

Consequently, there was an examination of the relation between sex, age, highest completed level of education, annual net income from agricultural production (after subtracting any expenditures) and the will of the trainees (after finishing the training programme) to develop activities in the Secondary and / or Tertiary sector of the economy. The following were observed:

- 93.7% of men were planning to develop activity in the Secondary or Tertiary sectors of the economy, compared to 89.3% of women who were also planning to develop activity in the Secondary or Tertiary sectors of the economy (Pearson's  $\chi^2 = 3.182$ ,  $p\text{-value} = 0.074 > 0.05$ ). Therefore, the original hypothesis of independence between the two variables is not rejected, consequently we can say that the two variables are independent.
- 91.8% of those aged between 31 and 40 were planning to develop activity in the Secondary or Tertiary sectors of the economy, compared to 91.7% of those under 30 years old and 89.4% of those aged between 41 and 50, as well as to 94.7% of those aged 51 to 60 years (Pearson's  $\chi^2 = 0.834$ ,  $p\text{-value} = 0.841 > 0.05$ ). Therefore, the original hypothesis of independence between the two variables cannot be not rejected; consequently we can say that the two variables are independent.
- 87.7% of those who finished six years of education (Grammar school) stated that they were planning to develop activity in the Secondary or Tertiary sectors of the economy, compared to 92% of those who had completed nine years of education (Gymnasium), 94.1% of those who had completed twelve years of education (Lyceum), 93% of those who had graduated a Technical Vocational School and 90.9% of persons who graduated an AEI or TEI and 100% of those that did not have any educational background at all, of those which had already developed activity in the Secondary or Tertiary sectors of the economy (Pearson's  $\chi^2 = 4.350$ ,  $p\text{-value} = 0.629 > 0.05$ ). Therefore, the original hypothesis of independence between the two variables cannot be rejected; thus we can say that the two variables are independent.
- 91.6% of the farmers whose income was less than 4,000 euros were planning to develop activity in the Secondary or Tertiary sectors of the economy, compared to 92.9% of those with an annual income between 4,000 and 10,000 euros, 93.9% of those stating that their annual income was between 10,000 and 25,000 euros, 96.9% of those with an annual income between 25,000 and 40,000 euros and 71.4% of persons stating that their net annual income was above 40,000 euros, of those who had already developed activity in the Secondary or Tertiary sectors of the economy (Pearson's  $\chi^2 = 6.225$ ,  $p\text{-value} = 0.183 > 0.05$ ). Therefore, the original hypothesis of independence between the

two variables cannot be rejected; thus we can say that the two variables are independent.

- 94.1% of farmers that have been working in the agricultural profession for 3 to 10 years are planning to commence activity in the Secondary or Tertiary sectors of the economy, compared to 32.9% of those that have been working in the agricultural profession for less than 3 years, 93.4% of those that have been working in the agricultural profession for 11 to 20 years and 89.9% of those that have been working in the agricultural profession for more than 20 years, who plan to commence activity in the Secondary or Tertiary sectors of the economy (Pearson's  $\chi^2 = 2.492$ , p-value = 0,646 > 0.05).

Therefore, the original hypothesis of independence between the two variables cannot be rejected; thus we can say that sex, age, level of education, income, and willingness to commence business activity are independent variables.

Examining the characteristics of Trainers that participated in the Programme, it was found that 81 out of 320 trainers questioned, a percentage of 25.3%, stated holding a post-graduate or doctorate degree. Examining the previous work experience of the Trainers, it was found that 44.0% had previous work experience in the agricultural sector, while only 26.8% stated they had previous work experience in the Secondary sector of the economy. Finally, 61.9% stated that they had previous work experience in the Tertiary sector of the economy.

Concerning the highest Level of Education of the Education Officials of the Programme, it was found that 41.4% (24 Education Officials) had completed post-graduate studies (post-graduate or doctorate degree) in specialties such as Economics (56.9%), Business Administration (MBA, 6.9%) and Agronomy (6.8%). To a question concerning their work experience in the Agricultural sector, 51.7% of those questioned (30 Education Officials) responded affirmatively while 32.8% (19 Education Officials) responded negatively (15.5% did not answer). 30% of Education Officials stated that they had experience in the Secondary sector of the economy, while 68.1% of Education Officials stated that they had work experience in the Tertiary sector of the economy.

### *3.2 Evaluation of the Farmer Training Programme*

In the beginning, Farmers were asked to state their expectations from their participation in the Programme, concerning the acquisition of knowledge and skills. During the research, the knowledge proven to be the most expected to be acquired was knowledge about the sale of agricultural products according to 14.5% of those asked (296 farmers), knowledge about the agricultural sector in Europe and the rest of the world according to 11.9% of those asked (243 farmers), the knowledge required to use a computer and text editor according to 10.6% of those asked (217 farmers), electronic mail, services and information search on the internet as stated by 210 farmers (10.3%), general knowledge about Marketing according to 190 farmers (9.3% of those asked) and the knowledge required to develop agritourism activities, according to 8.9% (181 farmers). Respectively, in the section of expected skills, we see that the greatest number sought skills to communicate with agricultural and governmental institutions according to 22.0% of those asked (324 farmers), the ease of economic transactions according to 17.1% of those asked (252 farmers), the use of a computer according to 16.3% of those asked (239 farmers), understanding the relevant terminology according to 15.8% of those asked (232 farmers) and the use of electronic mail and the internet according to 14.7% of those asked (216 farmers). Asking about the degree of satisfaction out of their participation in the Programme regarding the expectations above, it was found that 14.4% (85 farmers) stated they are extremely satisfied, 37.8% (223



farmers) stated they were very satisfied, while an average level of satisfaction was stated by 34.1% (201 farmers).

Simultaneously, it was asked of the farmers trained in the Programme to evaluate the degree to which this specific Programme covered their educational needs. To this question, 13.7% (81 farmers) stated that the Programme covered their educational needs to a very large degree, 40.2% (237 farmers) stated that the Programme covered their educational needs to a large degree, while 32.9% (194 farmers) of those participating in the Programme stated that the Programme covered their educational needs to an average degree. Following that, the degree to which farmers consider that the newly acquired skills and knowledge are sufficient for the development of entrepreneurial activities in the Secondary or Tertiary sectors of the economy. Processing the answers given by the farmers that participated in the research showed that 9.7% of them (57 farmers) stated that the knowledge and skills acquired are extremely sufficient, 29.3% (173 farmers) stated that they are very sufficient, 38.3% (226 farmers) stated that they are moderately adequate, 16.6% (98 farmers) stated that they are somewhat inadequate, showing that there is room for improvement with the Programme.

The study also focused on investigating the repercussions of the system of radial development of certain classes in areas away from urban centres<sup>1</sup>. Processing the answers to the question concerning the degree to which they considered that the Programme's effectiveness was contributed to by the possibility to form classes in areas remote from the urban centres, 43.6% (257 farmers) stated that it contributed extremely, 32.4% (191 farmers) stated that it contributed very much, while 14.6% (86 farmers) estimates that it was of average contribution to the Programme's success.

Moreover, the perception formed by the "ISIODOS" farmers was examined, concerning the taking of entrepreneurial action in the Secondary or Tertiary sector through collective action. Processing the answers to this question as provided by the farmers in the sample showed that 1.2% does not consider that they could commence entrepreneurial activity via collective action, 7.5% considers that farmers could commence some entrepreneurial activity in this way and 19.5% considers that they could develop it to an average degree. 39.8% and 29.8% of the sample answered "much" and "very much" to this question respectively, while 2.2% of the farmers in the sample did not answer this question.

The general estimation expressed by the trainers of the "ISIODOS" Programme is considered generally positive, since when asked to evaluate the results of its application, they were extremely satisfied by the content of the Programme, according to 64% (205 trainers), by its duration, according to 66.9% (214 trainers) as well as by the achievement of the Programme's original goals according to 65.3% (209 trainers). An especially important advantage concerning its effectiveness was the capability to form classes in areas remote from the urban centres, as stated by almost the total of the Trainers (88.7% of these stated that this capability contributed "extremely" and "very much" to the Programme's effectiveness). Despite all that, an important percentage of the Programme's trainers stated the need to further specialize the Programme and develop more specific educational subjects. Specifically, an important percentage of the trainers answered positively to a relevant question on the necessity to specialize within the educational subjects of the Programme (Table 3).

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<sup>1</sup> It is a system of developing adult training centers, which specifies that the Education Official maintains a seat in a central city of each Prefecture and organizes training classes, in cooperation with Local Administration authorities, Administrations, as well as the school units belonging to the Secondary Education, in Municipalities throughout the Prefecture, irrespective of distance.

### 3.3 Educational needs of the Greek farmers

Further investigation in the educational needs of the farmers that were not covered by the Programme and whose satisfaction was deemed necessary in order to successfully undertake entrepreneurial activity in the Secondary and / or Tertiary sector prompted a relevant question addressed to the trainers as well as the farmers, concerning the modules and the subjects which –according to them– required a more specific educational approach. The modules examined included agricultural products, which had an important presence in each Region, and the lack of knowledge was assessed in specific subjects, such as conservation and refrigeration, standardization and packing, dehydration and canning, storage and transport, quality control and quality assurance systems, PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) products, physicochemical and microbiological characteristics, building and equipment specifications for processing, etc.

*Table 3.*

<b>Unit</b>	<b>% of Trainers who answered affirmatively</b>
1. The Agricultural sector in Greece – Europe – The world	30.3
2. Branches of the Secondary and Tertiary sectors related to the agricultural sector	38.8
3. Market Economics – Entrepreneurship – Enterprises	26.6
4. Business Management and Administration – Funding – Sources	40.3
5. Negotiation techniques – Sales – Trading	34.1
6. Introduction to Computers and the Internet	25.3

Source: Field Research

The research showed that the areas that garnered more interest for further specialization upon by the “ISIODOS” Programme were the modules dealing with State and European policies, the use of computers and the Internet and entrepreneurship, with 95.6% (564 farmers), 92.9% (548 farmers) and 91.4% (539 farmers) respectively among those trainees participating in the research expressing an interest for them. The following three positions among educational modules with the highest concentration of interest are the modules concerning Olive, Fruit and Dairy products, which accounted for 85.6% (216 farmers), 79.8% (187 farmers) and 76.2% (253 farmers), respectively. At the bottom of the preferences we find the modules related to agritourism, honey, vegetable, fish, meat and wine products, which were considered important by 75.9% (448 farmers), 75.3% (171 farmers), 75.3% (286 farmers) 73.9% (88 farmers), 68.6% (269 farmers) and 68.2% (176 farmers) out of those farmers in the sample that were questioned, respectively (Table 4).

*Table 4.*

<b>Educational Module</b>	<b>Number of Trainers that answered affirmatively</b>	<b>% of Trainers who answered affirmatively</b>	<b>number of Farmers who answered affirmatively</b>	<b>% of Farmers who answered affirmatively</b>
Meat and products	187	58.4	269/392	68.6
Vegetables	197	61.6	286/380	75.3
Wine	193	60.3	176/258	68.2
Eggs	174	54.4	29/61	47.5
Dairy	196	61.3	253/332	76.2
Fish	177	55.3	88/119	73.9
Olives	193	60.3	216/254	85.0
Seeds – seed oils	185	57.8	86/159	54.1
Melons – watermelons – potatoes	180	56.3	29/47	61.7
Fruit	186	58.1	197/247	79.8
Legumes	182	56.9	135/205	65.9
Honey	194	60.6	171/227	75.3
Agritourism	217	67.8	448/590	75.9
Entrepreneurship	222	69.4	539/590	91.4
Computers & internet	195	60.9	548/590	92.9
National and European policies			564/590	95.6

Source: Field Research

Emphasizing on the needs expressed on specific educational subjects, specifically in the educational module of entrepreneurship, it was seen that out of the farmers that participated and answered the relevant question, they stated that they know from an average down to a non-existent degree information concerning the foundation of an enterprise in Greece – characteristics, categories, forms and size, procedure and prerequisites, by 76.7% (412 of 536 farmers), business management and administration issues, by 79.5% (426 of 536 farmers), matters of entrepreneurial planning and programming, by 78.7% (422 of 526 farmers), matters of promotion of agricultural products and services, by 73.5% (394 of 539 farmers), principles of marketing and the role played by marketing in entrepreneurial development, by 75.9% (407 of 536 farmers) and matters concerning investment in manufacture and trade of agricultural products – funding via Programmes co-funded by the EU and the Investment Incentives Law, by 70.8% (375 of 530 farmers).

Examining the results of the research concerning the educational subject of agritourism showed that the farmers participating that answered a relevant question are familiar from an average degree to not at all with matters concerning agritourism units and businesses (legislation, technical specifications and foundation procedures), 79.0% (354 of 448 farmers), the machinery and other equipment required to operate an agritourism enterprise, 80.9% (359 of 444 farmers), the basic management principles of agritourism enterprises, 80.0% (355 of 444 farmers), the main principles of traditional nutrition, by 445 farmers that answered a relevant question, 73.7% (328 of 445 farmers), the production and sale of local traditional products, 73.5% (325 of 442 farmers), the development of promotional actions for agritourism services via local and international networks, 78.2% (345 of 441 farmers).

Concerning the educational unit pertaining to the use of computers, it was found that out of the farmers that participated and answered a relevant question are familiar from an average degree to not at all with matters concerning the general use of computers, 72.4% (397 of 548 farmers), the use of electronic mail and electronic after sales communication with customers in general, 76.4% (411 of 538 farmers), the use of the internet to find suppliers and customers, 74.7% (405 by 542 farmers), using office applications, 79.7% (432 of 542 farmers), the creation and support of business websites, 82.5% (443 of 537 farmers) and the use of electronic commerce applications, supplies – sales, banking transactions and payments, creation of a network between producers and merchants, 79.9% (432 of 541 farmers, Table 5).

*Table 5.*

<b>Educational Unit</b>	<b>% of farmers</b>
<b>Entrepreneurship</b>	
Foundation of an enterprise in Greece – characteristics, categories, forms and size, procedure and prerequisites	76.7
Business management and administration issues	79.5
Matters of entrepreneurial planning and programming	78.7
Matters of promotion of agricultural products and services	73.5
Basic marketing principles and the role played by marketing in entrepreneurial development	75.9
Investment in manufacture and trade of agricultural products – possibilities of funding via Programmes co-funded by the EU and the Investment Incentives Law	70.8
<b>Agritourism</b>	
Matters concerning agritourism units and businesses (legislation, technical specifications and foundation procedures)	79.0
Machinery and other equipment required to operate an agritourism enterprise	80.9
Basic management principles of agritourism enterprises	80.0
Basic principles of traditional nutrition	73.7
Production and sales of local traditional products	73.5
Development of promotional actions for agritourism services via local and international networks	78.2
<b>Computers and new technologies</b>	
General use of computers	72.4
Use of electronic mail and electronic after sales communication with customers in general	76.4
Use of the internet to find suppliers and customers	74.7
Use of office applications	79.7
Creation and support of business websites	82.5
Use of electronic commerce applications, supplies – sales, banking transactions and payments, creation of a network between producers and merchants	79.9

Source: Field Research

#### **4. Conclusions and suggestions for policy-making**

The "ISIODOS" educational Programme aimed to provide knowledge and skills that can help farmers who wish to venture into entrepreneurial action in activities of the secondary and tertiary sectors of the economy. The results of the research conducted revealed that the farmers who expressed interest and participated in "ISIODOS" were in their majority farmers in their mature years (average: 40 years old), to a high percentage they had already formed their family environment, a major percentage of them possessed significant professional experience, employed their children in their agricultural activities, thereby creating the conditions for the operation of a family business, and were for the most part employed for less than nine (9) months per year. As for their educational background, it is deemed satisfactory enough, with regard to the typical education they have received. However, the level of professional training of the farmers who were trained in "ISIODOS" is rather low, in addition to their rather low familiarity with the new information and communication technologies. Examining the financial situation of those farmers today and their capabilities to draw investment capital from their own resources, both the low income of the farmers and the low income from the total of the available sources they declare, advocate the need for incentives and measures of financial aid to undertake entrepreneurial activities.

Concerning the results of the educational Programme and the degree that this meets the educational needs of the participating farmers, the farmers expressed a relative satisfaction for their most part. A significant percentage, however, of farmers (58.5%) stated that the knowledge and skills are moderately to not at all adequate for the commencement of activities in the Secondary and Tertiary sector of the economy, suggesting at the same time that there is significant room for the redefinition of the Programme's educational goals, rendering it appropriate to meet modern needs, through additions, updates and in-depth analysis of the individual educational fields.

The educational units where additions and updates were shown to be required include entrepreneurship, state and European policies, use of computers, and agritourism. Simultaneously, the need to specialize in some modules concerning specific agricultural products, for which a lack of knowledge was assessed, such as conservation and refrigeration, standardization and packing, dehydration and canning, storage and transport, quality control and quality assurance systems, PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) products, physicochemical and microbiological characteristics, building and equipment specifications for processing, etc.

The Programme's successful application gives good reason for the further development of learning groups during the new Programme Period, 2007 to 2013, as well as for the promotion of specific additional support actions to the benefit of farmers that desire to develop activities in the Secondary and / or Tertiary sectors of the economy. Among the main promotional axes for entrepreneurial action by farmers we find a) the continuation and broadening of learning groups similar to those in the "ISIODOS" Programme by the Institute for Lifelong Learning in the framework of the NSRF 2007 - 2013, b) the specialisation and creation of special units enriched with the modules for which a lack of knowledge and skills was expressed, as well as the production of the educational material of the length and content required, based on the Lifelong Learning Principles, c) the reinforcement of financial incentives and funding means to found enterprises in the remote areas of the Greek countryside, d) the promotion, via networking actions and practical exercises of the Training Programme, of the development of cooperation and collective initiatives and e) the

cooperation with other promotional structures for entrepreneurial activities (professional associations, Development Companies etc).

Finally, the comparative advantage of the "ISIODOS" programme against other parallel training initiatives was its radial action and development of flexible learning groups in remote agricultural areas, an action which should be imitated by the total of educational and training structures for farmers operating in our country today.

## References

**Gidakou I., Xenou A., Theofilidou K., Kazazis, E. (2000),** *Vocational Training / Education of female farmers – Targets and Evaluation*, Minutes of the 5<sup>th</sup> Panhellenic Conference for Agricultural Economy on the subject of "Restructuring Agricultural Areas", ed. K. Papageorgiou, Athens, December 11 to 13, ET.AGR.O., Stamoulis Editions. [In Greek]

**Kanteres, N., Koutsouris, A., (2000),** *Quests in Agricultural Education*, Minutes of the 5<sup>th</sup> Panhellenic Conference for Agricultural Economy on the subject of "Restructuring Agricultural Areas", ed. K. Papageorgiou, Athens, December 11 to 13, ET.AGR.O., Stamoulis Editions. [In Greek]

**Labrianidis, L., (2004),** *Introduction, to Entrepreneurship in the European Countryside: The Case of Greece*, L. Labrianidis (Ed.), Epikentro Publications. Thessaloniki. [In Greek]

**Ministry for Rural Development and Foods, (2009),** *2007 – 2013 Agricultural Development Plan for Greece, Special Secretariat for the Planning and Implementing of the 3<sup>rd</sup> CSF*, 6<sup>th</sup> Edition, July. [In Greek]

**Ministry for Rural Development and Foods, (2009),** *2007 – 2013 National Strategic Development Plan, Special Secretariat of the 3<sup>rd</sup> CSF*, July. [In Greek]

**Piasecki, B., Rogut, A. Herdzina K., Findeis A., Fleischmann, S., Wander, C., (2004),** *European rural SMEs in the context of globalization and enlargement "The future of Europe's rural peripheries: The Case of Greece"* L. Labrianidis (Ed.), Epikentro Publications. Thessaloniki. [In Greek]

**Skuras, D., Stathopoulou, S., (2000),** *Rural Entrepreneurship and Regional Development*, Proceedings of the 40<sup>th</sup> European Congress "European Monetary Union and Regional Policy", ERSA, Barcelona, Spain.

**Tervo, H., (2004),** *Self-Employment Dynamics in Rural and Urban Labour Markets*, Proceedings of the 44<sup>th</sup> European Congress "Regions and Fiscal Federalism", ERSA, Porto, Portugal.

**Venetsanopoulou M. (2006),** *State Contribution in Tourism: Alternative Forms of Tourism*. Interbooks Publications. Athens. [In Greek]

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