

#### COMPANIES' SURVEY RESULTS: GREECE

A total of 23 companies participated in the survey carried out in the frame of the MULTITRACES project in Greece. These companies are located in the rural areas in 3 different Regions in Northern Greece, the Region of Eastern Macedonia & Thrace, the Region of Central Macedonia and the Region of Thessaly. The survey was based on a structured questionnaire with mostly closed-type of questions. The statistical results of our preliminary analysis are presented in the following sections.

#### **1. COMPANY INFORMATION**

#### 1.1 SIZE OF THE COMPANY

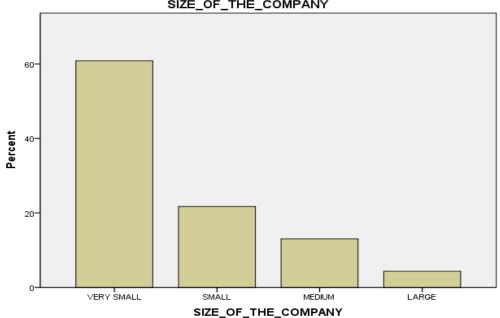
Four size classes were used to describe the companies that took part in the survey in terms of their size, namely very small, small, medium and large. Table 1 includes the distribution of the companies to the different four size classes. Almost 83% of the companies were very small or small and only 4% were classified as large. This was expected as most of the companies based in the rural areas of Greece are small enterprises.



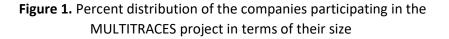


Table 1. Distribution of the companies participated in the MULTITRACES survey according to their size

| COMPANY SIZE |             |           |         | Valid   | Cumulative |
|--------------|-------------|-----------|---------|---------|------------|
| 0            | VITANT SIZE | Frequency | Percent | Percent | Percent    |
| Valid        | VERY SMALL  | 14        | 60,9    | 60,9    | 60,9       |
|              | SMALL       | 5         | 21,7    | 21,7    | 82,6       |
|              | MEDIUM      | 3         | 13,0    | 13,0    | 95,7       |
|              | LARGE       | 1         | 4,3     | 4,3     | 100,0      |
|              | Total       | 23        | 100,0   | 100,0   |            |

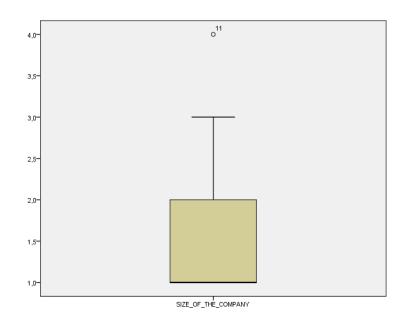


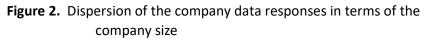
SIZE\_OF\_THE\_COMPANY











#### **1.2** Company year of foundation

About 60% of the companies that participated in the survey were founded 20 or more years ago, that is they are well established in the market and almost 14% were founded during the past 10 years.

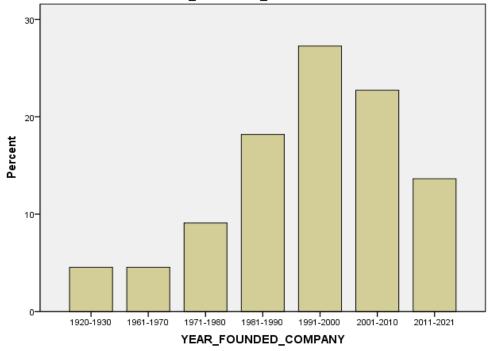
|         |           |           |         | Valid   | Cumulative |
|---------|-----------|-----------|---------|---------|------------|
|         |           | Frequency | Percent | Percent | Percent    |
| Valid   | 1920-1930 | 1         | 4,3     | 4,5     | 4,5        |
|         | 1961-1970 | 1         | 4,3     | 4,5     | 9,1        |
|         | 1971-1980 | 2         | 8,7     | 9,1     | 18,2       |
|         | 1981-1990 | 4         | 17,4    | 18,2    | 36,4       |
|         | 1991-2000 | 6         | 26,1    | 27,3    | 63,6       |
|         | 2001-2010 | 5         | 21,7    | 22,7    | 86,4       |
|         | 2011-2021 | 3         | 13,0    | 13,6    | 100,0      |
|         | Total     | 22        | 95,7    | 100,0   |            |
| Missing | System    | 1         | 4,3     |         |            |
| Total   |           | 23        | 100,0   |         |            |

**Table 2.** Distribution of companies by their year of foundation

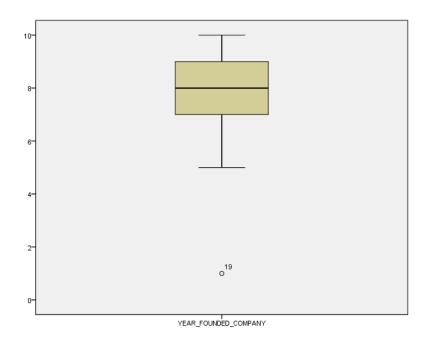


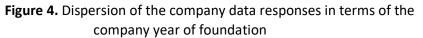


YEAR\_FOUNDED\_COMPANY



**Figure 3.** Percent distribution of the companies participated in the MULTITRACES survey according to their year of foundation









#### 1.3 Company involvement in research projects over the past 5 years

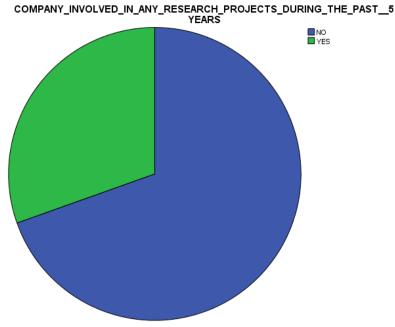
The majority of the companies (70%) that participated in the MULTITRACES survey were not involved in any research project over the past 5 years.

#### **Table 3.** Distribution of the companies participated in the

MULTITRACES survey according to their involvement in

#### research projects over the past 5 years

| _     |       | -         |         | Valid   |                    |
|-------|-------|-----------|---------|---------|--------------------|
|       |       | Frequency | Percent | Percent | Cumulative Percent |
| Valid | NO    | 16        | 69,6    | 69,6    | 69,6               |
|       | YES   | 7         | 30,4    | 30,4    | 100,0              |
|       | Total | 23        | 100,0   | 100,0   |                    |



**Figure 4.** Percent distribution of the companies participated in the MULTITRACES survey according to their involvement in research projects over the past 5 years



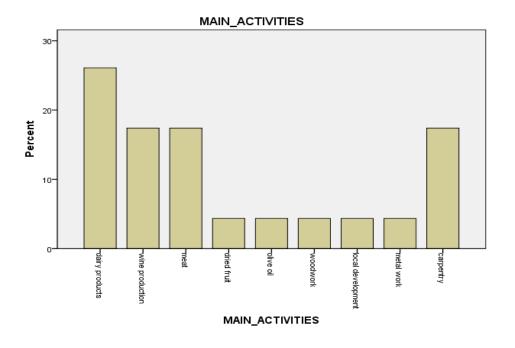


#### 2. COMPANY ACTIVITIES AND PRODUCTS

The main activities of the companies that participated in the MULTITRACES survey included production of dairy products, wine, meat, dried fruit, olive oil, wood pellets, metal processing and wood processing.

|       |                   | Frequency | Percent   | Valid<br>Percent | Cumulative<br>Percent |
|-------|-------------------|-----------|-----------|------------------|-----------------------|
| Valid | Dairy products    | 6         | 26,1      | 26,1             | 26,1                  |
|       | wine production   | 4         | ,<br>17,4 | ,<br>17,4        | 43,5                  |
|       | meat              | 4         | 17,4      | 17,4             | 60,9                  |
|       | dried fruit       | 1         | 4,3       | 4,3              | 65,2                  |
|       | olive oil         | 1         | 4,3       | 4,3              | 69 <i>,</i> 6         |
|       | woodwork          | 1         | 4,3       | 4,3              | 73,9                  |
|       | local development | 1         | 4,3       | 4,3              | 78,3                  |
|       | metal work        | 1         | 4,3       | 4,3              | 82,6                  |
|       | carpentry         | 4         | 17,4      | 17,4             | 100,0                 |
|       | Total             | 23        | 100,0     | 100,0            |                       |

#### Table 4. Main activities of the companies participating in the MULTITRACES survey



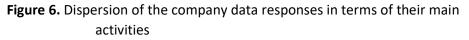
## Figure 5. Percent distribution of the companies participated in the MULTITRACES survey according to their main activities







MAIN\_ACTIVITES

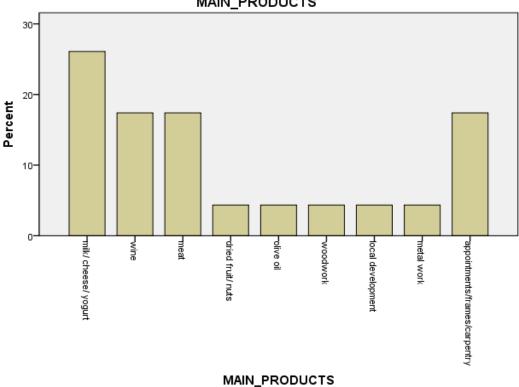


|       |                      |           |         | Valid   | Cumulative |
|-------|----------------------|-----------|---------|---------|------------|
|       |                      | Frequency | Percent | Percent | Percent    |
| Valid | milk/ cheese/ yogurt | 6         | 26,1    | 26,1    | 26,1       |
|       | wine                 | 4         | 17,4    | 17,4    | 43,5       |
|       | meat                 | 4         | 17,4    | 17,4    | 60,9       |
|       | dried fruit/ nuts    | 1         | 4,3     | 4,3     | 65,2       |
|       | olive oil            | 1         | 4,3     | 4,3     | 69,6       |
|       | woodwork             | 1         | 4,3     | 4,3     | 73,9       |
|       | local development    | 1         | 4,3     | 4,3     | 78,3       |
|       | metal work           | 1         | 4,3     | 4,3     | 82,6       |
|       | appointments/frames/ | 4         | 17,4    | 17,4    | 100,0      |
|       | carpentry            |           |         |         |            |
|       | Total                | 23        | 100,0   | 100,0   |            |

**Table 5.** Main activities of the companies participating in the MULTITRACES survey

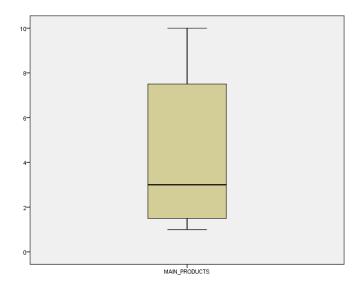






MAIN\_PRODUCTS

Figure 7. Percent distribution of the companies participated in the MULTITRACES survey according to their main products



#### Figure 8. Dispersion of the company data responses in terms of their main products



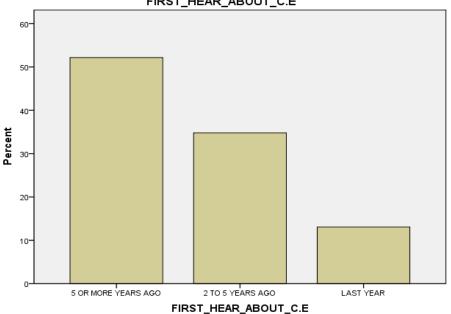


# 3. KNOWLEDGE OF CIRCULAR ECONOMY IMPLEMENTATION IN RURAL AREAS

#### 3.1 Time of first hearing about Circular Economy

### **Table 5.** Distribution of the companies participating in the MULTITRACES survey according to time of first hearing about Circular Economy

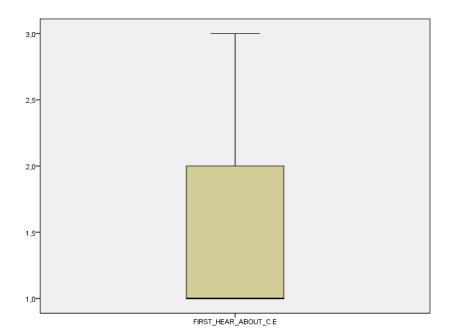
|       |                     |           |         |               | Cumulative |
|-------|---------------------|-----------|---------|---------------|------------|
|       |                     | Frequency | Percent | Valid Percent | Percent    |
| Valid | 5 OR MORE YEARS AGO | 12        | 52,2    | 52,2          | 52,2       |
|       | 2 TO 5 YEARS AGO    | 8         | 34,8    | 34,8          | 87,0       |
|       | LAST YEAR           | 3         | 13,0    | 13,0          | 100,0      |
|       | Total               | 23        | 100,0   | 100,0         |            |

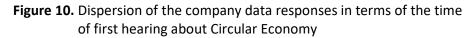


#### **Figure 9.** Percent distribution of the companies participated in the MULTITRACES survey according to the time of first hearing about Circular Economy

FIRST\_HEAR\_ABOUT\_C.E







## **3.2.** Circular Economy actions implemented by the companies over the past 5 years

Most of the companies (90% of responses) stated among the circular economy actions that their company implemented over the past 5 years the minimization of waste by recycling or reusing waste or selling it to another company. The least circular economy implemented action by the companies participating in the MULTITRACES survey was the Life Cycle Assessment. Also worth to note was that less than 20% of the companies stated that they used renewable energy sources.





#### **Reliability Statistics**

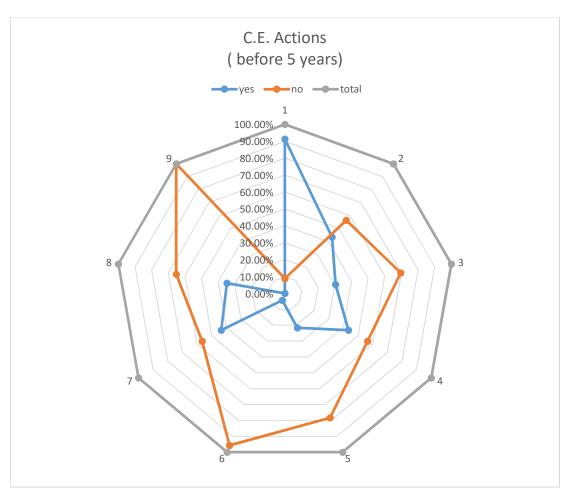
| Cronbach's Alpha | N of Items |
|------------------|------------|
| ,642             | 9          |

| <b>Table 6.</b> Reliability statistics (Cronbach's Alpha) for the circular economy actions |  |
|--|--|
| implemented by the companies over the past 5 years   |  |

|                          |               | Scale    |             |               |
|--------------------------|---------------|----------|-------------|---------------|
|                          |               | Variance | Corrected   | Cronbach's    |
|                          | Scale Mean if | if Item  | Item-Total  | Alpha if Item |
|                          | Item Deleted  | Deleted  | Correlation | Deleted       |
| MINIMISE WASTE           | 2,22          | 3,542    | -,047       | ,675          |
| REPLAN ENERGY            | 2,70          | 2,403    | ,581        | ,536          |
| RE-DESIGN PRODUCTS       | 2,83          | 2,514    | ,562        | ,546          |
| REPLAN WATER             | 2,70          | 2,767    | ,326        | ,616          |
| ANALYSIS MATERIAL ENERGY | 2,91          | 2,992    | ,276        | ,625          |
| LIFECYCLE ASSESSMENT     | 3,09          | 3,356    | ,228        | ,635          |
| ENVIROMENTAL             | 2,70          | 2,494    | ,514        | ,558          |
| CERTIFICATIONS           |               |          |             |               |
| RENEWABLE ENERGY         | 2,78          | 2,905    | ,260        | ,633          |
| OTHER                    | 3,13          | 3,573    | ,000        | ,652          |







#### Legend

- 1. Minimize waste by recycling or reusing waste or selling it to another company
- 2. Re-plan energy usage to minimize consumption
- 3. Redesign products and services to minimize the use of materials or use recycled materials
- 4. Re-plan of the way water is used to minimize usage and maximize re-usage
- 5. Make an analysis of the material and energy flows that the company uses
- 6. Make a Lifecycle Assessment
- 7. Apply for and/or obtain environmental certifications
- 8. Use of renewable energy
- 9. Other

Figure 11. Percent distribution of company responses regarding implementation of circular economy actions over the past 5 years





## **3.3.** Circular Economy actions to be implemented by the companies during the next 5 years

## Reliability StatisticsCronbach'sN of

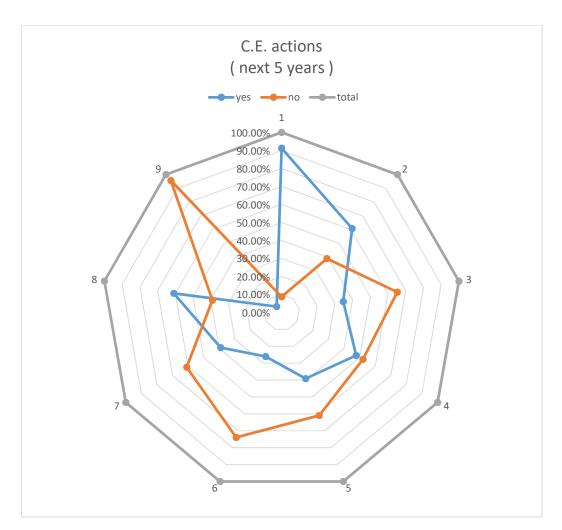
| CIUIDACIIS |       |  |
|------------|-------|--|
| Alpha      | Items |  |
| ,786       | 9     |  |

**Table 7.** Reliability statistics (Cronbach's Alpha) for the circular economy actions tobe implemented by the companies during the next 5 years

|                                 | Scale Mean if<br>Item Deleted | Scale<br>Variance if<br>Item Deleted | Corrected<br>Item-Total<br>Correlation | Cronbach's<br>Alpha if Item<br>Deleted |
|---------------------------------|-------------------------------|--------------------------------------|--|--|
| MINIMISE WASTE                  | 3,13                          | 5,755                                | ,149                                   | ,797                                   |
| RE-DESIGN PRODUCTS              | 3,70                          | 4,858                                | ,442                                   | ,770                                   |
| REPLAN ENERGY                   | 3,43                          | 4,621                                | ,547                                   | ,754                                   |
| REPLAN WATER                    | 3,57                          | 4,439                                | ,624                                   | ,741                                   |
| ANALYSIS MATERIAL<br>ENERGY     | 3,65                          | 4,419                                | ,656                                   | ,736                                   |
| LIFECYCLE<br>ASSESSMENT         | 3,78                          | 4,632                                | ,626                                   | ,743                                   |
| ENVIRONMENTAL<br>CERTIFICATIONS | 3,65                          | 4,692                                | ,510                                   | ,760                                   |
| RENEWABLE ENERGY                | 3,43                          | 4,984                                | ,364                                   | ,782                                   |
| OTHER                           | 4,00                          | 5,727                                | ,273                                   | ,788                                   |







#### <u>Legend</u>

- 1. Minimize waste by recycling or reusing waste or selling it to another company
- 2. Re-plan energy usage to minimize consumption
- 3. Redesign products and services to minimize the use of materials or use recycled materials
- 4. Re-plan of the way water is used to minimize usage and maximize re-usage
- 5. Make an analysis of the material and energy flows that the company uses
- 6. Make a Lifecycle Assessment
- 7. Apply for and/or obtain environmental certifications
- 8. Use of renewable energy
- 9. Other

**Figure 12.** Percent distribution of company responses regarding implementation of circular economy actions during the next 5 years





## **3.4.** Benefits to the companies from implementation of Circular Economy actions over the past 5 years

| <b>Reliability Statistics</b> |            |  |  |
|-------------------------------|------------|--|--|
| Cronbach's Alpha              | N of Items |  |  |
| ,611                          | 12         |  |  |

**Table 8.** Reliability statistics (Cronbach's Alpha) for the benefits to the companiesfrom implementation of circular economy actions over the past 5 years

|  | Scale Mean |                 | Corrected   | Cronbach's    |
|--|------------|-----------------|-------------|---------------|
|  | if Item    | Scale Variance  | Item-Total  | Alpha if Item |
|  | Deleted    | if Item Deleted | Correlation | Deleted       |
| FEWER GREENHOUSE GAS<br>EMISSIONS                  | 3,96       | 4,225           | ,243        | ,596          |
| BETTER EXPLOITATION OF<br>RENEWABLE ENERGY SOURCES | 3,87       | 4,028           | ,370        | ,566          |
| BETTER MANAGEMENT OF<br>NATURAL RESOURCES          | 3,87       | 4,664           | ,041        | ,639          |
| ECONOMIC GROWTH                                    | 3,91       | 3,901           | ,425        | ,552          |
| NEW PROFIT OPPORTUNITIES                           | 4,04       | 4,043           | ,333        | ,574          |
| SAFEGUARD SUPPLIES                                 | 4,35       | 4,055           | ,501        | ,546          |
| DEMAND OF NEW SERVICES                             | 4,30       | 4,494           | ,177        | ,607          |
| EMPLOYMENT GROWTH                                  | 4,35       | 4,419           | ,257        | ,591          |
| MORE RESOURCES SAVED                               | 3,87       | 3,846           | ,474        | ,540          |
| GETTING TO KNOW CLIENTS<br>BETTER                  | 4,17       | 4,423           | ,160        | ,613          |
| OTHER  | 4,52       | 4,988           | ,000        | ,616          |

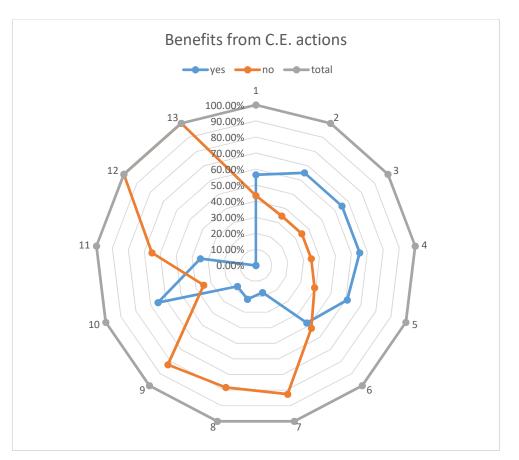




|  | Scale Mean   |                 | Corrected    | Cronbach's    |
|--|--------------|-----------------|--------------|---------------|
|  | if Item      | Scale Variance  | Item-Total   | Alpha if Item |
|  | Deleted      | if Item Deleted | Correlation  | Deleted       |
| FEWER GREENHOUSE GAS<br>EMISSIONS                  | 3,96         | 4,225           | ,243         | ,596          |
| BETTER EXPLOITATION OF<br>RENEWABLE ENERGY SOURCES | 3,87         | 4,028           | ,370         | ,566          |
| BETTER MANAGEMENT OF<br>NATURAL RESOURCES          | 3,87         | 4,664           | ,041         | <i>,</i> 639  |
| ECONOMIC GROWTH                                    | 3,91         | 3,901           | ,425         | ,552          |
| NEW PROFIT OPPORTUNITIES                           | 4,04         | 4,043           | ,333         | ,574          |
| SAFEGUARD SUPPLIES                                 | 4,35         | 4,055           | ,501         | ,546          |
| DEMAND OF NEW SERVICES                             | 4,30         | 4,494           | ,177         | ,607          |
| EMPLOYMENT GROWTH                                  | 4,35         | 4,419           | ,257         | ,591          |
| MORE RESOURCES SAVED                               | 3,87         | 3,846           | ,474         | ,540          |
| GETTING TO KNOW CLIENTS<br>BETTER                  | 4,17         | 4,423           | ,160         | ,613          |
| OTHER  | 4,52<br>4,52 | 4,988<br>4,988  | ,000<br>,000 | ,616<br>,616  |
| NONE   | 7,52         | -,500           | ,000         | ,010          |







#### Legend

- 1. Fewer greenhouse gas emissions
- 2. Better exploitation of renewable energy sources
- 3. Better management of natural resources
- 4. Economic growth
- 5. New profit opportunities
- 6. Safeguard supplies
- 7. Demand for new services
- 8. Employment growth
- 9. More resources saved
- 10. Getting to know clients better
- 11. Other
- 12. None
- **Figure 13.** Percent distribution of company responses regarding the benefits to the companies from implementation of circular economy actions over the past 5 years





## **3.5.** Classification of the regions the companies are based regarding implementation of Circular Economy actions in rural areas

**Table 9.** Distribution of the companies participating in the MULTITRACES surveyaccording to the classification of the regions the companies are based regardingimplementation of circular economy actions in rural areas

|       |                      | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|-------|----------------------|-----------|---------|---------------|-----------------------|
| Valid | MY REGION IS WORKING | 2         | 8,7     | 8,7           | 8,7                   |
|       | ON THE C.E.          |           | 1       |               |                       |
|       | MY REGION HAS JUST   | 14        | 60,9    | 60,9          | 69,6                  |
|       | STARTED WORKING ON   |           |         |               |                       |
|       | THE C.E.             |           |         |               |                       |
|       | MY REGION IS NOT     | 7         | 30,4    | 30,4          | 100,0                 |
|       | IMPLEMENTING C.E.    |           |         |               |                       |
|       | Total                | 23        | 100,0   | 100,0         |                       |



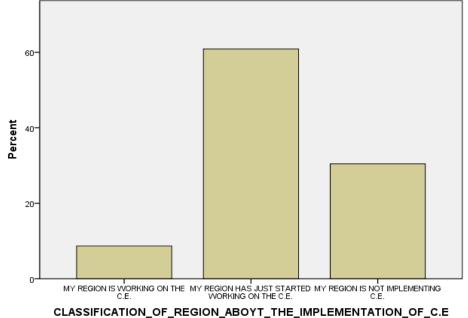
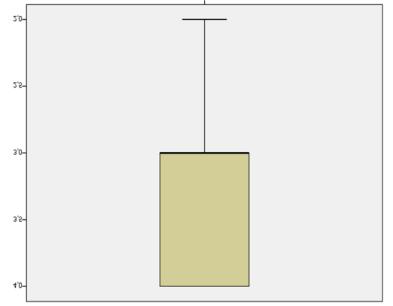


Figure 14. Percent distribution of the companies participated in the MULTITRACES survey according to the classification of the regions the companies are based regarding implementation of circular economy actions in rural areas





CLASSIFICATION\_OF\_REGION\_ABOYT\_THE\_IMPLEMENTATION\_OF\_C.E

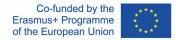


**Figure 15.** Dispersion of the company data responses in terms of the classification of the regions the companies are based regarding implementation of circular economy actions in rural areas

**3.6.** Competences of new employees/collaborators added to the companies over the past 5 years

| Reliability Statistics |            |  |  |  |
|------------------------|------------|--|--|--|
| Cronbach's Alpha       | N of Items |  |  |  |
| ,773                   | 14         |  |  |  |





employees/collaborators added to the companies over the past 5 years

 Scale Mean if
 Scale Variance
 Corrected Item Cronbach's

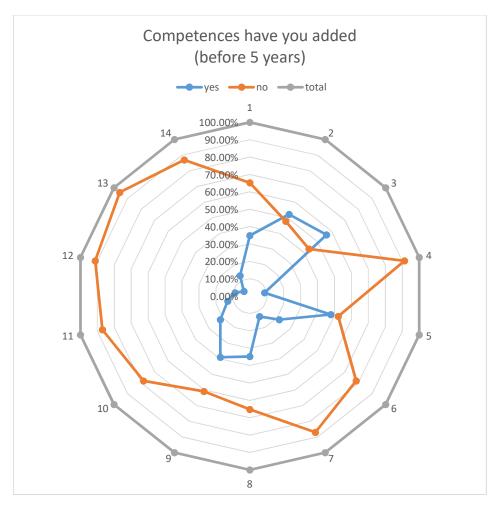
 Item Deleted
 if Item Deleted
 Correlation
 Deleted

Table 10. Reliability statistics (Cronbach's Alpha) for the competences of new

|                      | Scale Mean if | Scale Variance  | Total       | Alpha if Item |
|----------------------|---------------|-----------------|-------------|---------------|
|                      | Item Deleted  | if Item Deleted | Correlation | Deleted       |
| ECONOMICS FINANCE    | 3,35          | 7,146           | ,461        | ,752          |
| SALES MARKETING      | 3,17          | 7,696           | ,222        | ,779          |
| COMMUNICATION        | 3,13          | 7,119           | ,447        | ,754          |
| LAWFUL COMPETENCIES  | 3,61          | 8,067           | ,266        | ,769          |
| ICT COMPUTER SCIENCE | 3,22          | 7,542           | ,279        | ,773          |
| ENERGY MANAGEMENT    | 3,48          | 6,534           | ,869        | ,711          |
| ENVIROMENTAL         | 3,57          | 7,257           | ,652        | ,739          |
| ENGINEERING          |               |                 |             |               |
| PRODUCTION           | 3,35          | 6,601           | ,698        | ,725          |
| ENGINEERING          |               |                 |             |               |
| PRODUCT DESIGN       | 3,30          | 7,040           | ,490        | ,749          |
| SERVICES DESIGN      | 3,48          | 7,443           | ,419        | ,757          |
| SOCIAL SCIENCES AND  | 3,57          | 7,802           | ,345        | ,763          |
| HUMANITIES           |               |                 |             |               |
| BIOTECHNOLOGY        | 3,61          | 7,613           | ,559        | ,750          |
| AGRONOMY             | 3,65          | 8,692           | -,122       | ,787          |
| OTHER                | 3,57          | 8,893           | -,208       | ,803          |







#### <u>Legend</u>

- 1. Economics/ finance
- 2. Sales/marketing
- 3. Communication
- 4. Lawful competencies
- 5. ICT / Computer science
- 6. Energy management
- 7. Environmental engineering
- 8. Production engineering
- 9. Product design
- 10. Service design
- 11. Social sciences
- 12. Biotechnology
- 13. Agronomy
- 14. Other



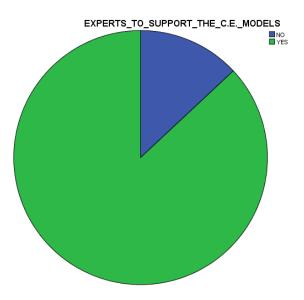


Figure 16. Percent distribution of company responses regarding the competences of new employees/collaborators added to the companies over the past 5 years

## **3.7.** Company needs for specialized professionals / experts to support the implementation of Circular Economy models

# Table 11. Distribution of company needs for specializedprofessionals/ experts to support the implementation ofCircular Economy models

|       |       |           |               |               | Cumulative |
|-------|-------|-----------|---------------|---------------|------------|
|       |       | Frequency | Percent       | Valid Percent | Percent    |
| Valid | NO    | 3         | 13,0          | 13,0          | 13,0       |
|       | YES   | 20        | 87 <i>,</i> 0 | 87,0          | 100,0      |
|       | Total | 23        | 100,0         | 100,0         |            |



# Figure 17. Percent distribution of company needs regarding the competences of new employees/collaborators added to the companies over the past 5 years





#### 3.8. Fields of needed competences for new employees/ collaborators

#### **Reliability Statistics**

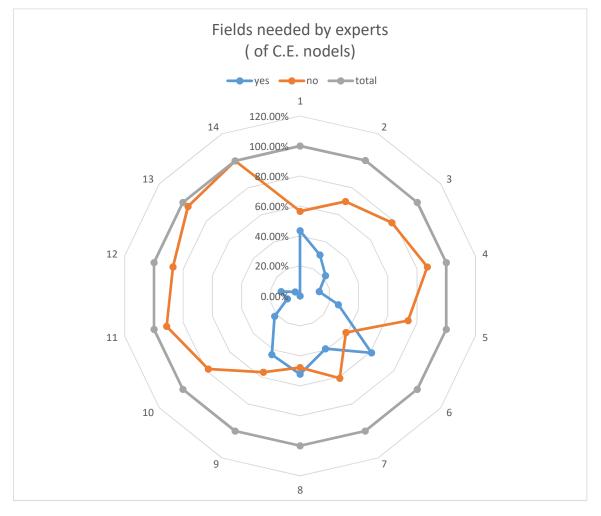
| Cronbach's |            |
|------------|------------|
| Alpha      | N of Items |
| ,732       | 14         |

**Table 12.** Reliability statistics (Cronbach's Alpha) for the fields of neededcompetences for new employees/collaborators

|                      |               |                 | Corrected Item- | Cronbach's    |
|----------------------|---------------|-----------------|-----------------|---------------|
|                      | Scale Mean if | Scale Variance  | Total           | Alpha if Item |
|                      | Item Deleted  | if Item Deleted | Correlation     | Deleted       |
| ECONOMIC FINANCE     | 3,35          | 5,692           | ,659            | ,673          |
| SALES MARKETING      | 3,48          | 6,443           | ,367            | ,714          |
| COMMUNICATION        | 3,57          | 6,166           | ,572            | ,690          |
| LAWFUL COMPETENCIES  | 3,65          | 6,964           | ,252            | ,726          |
| ICT COMPUTER SCIENCE | 3,52          | 6,897           | ,188            | ,736          |
| ENERGYY MANAGEMENT   | 3,17          | 6,332           | ,382            | ,713          |
| ENVIROMENTAL         | 3,39          | 6,522           | ,302            | ,724          |
| ENGINEERING          |               |                 |                 |               |
| PRODUCTION           | 3,26          | 6,020           | ,503            | ,696          |
| ENGINEERING          |               |                 |                 |               |
| PRODUCT DESIGN       | 3,35          | 6,055           | ,493            | ,697          |
| SERVICES DESIGN      | 3,57          | 6,621           | ,342            | ,717          |
| SOCIAL SCIENCES AND  | 3,70          | 7,130           | ,213            | ,729          |
| HUMANITIES           |               |                 |                 |               |
| BIOTECHNOLOGY        | 3,65          | 7,419           | ,002            | ,748          |
| AGRONOMY             | 3,74          | 7,111           | ,348            | ,722          |
| OTHER                | 3,78          | 7,542           | ,000            | ,736          |







#### <u>Legend</u>

- 1. Economics/ finance
- 2. Sales/ marketing
- 3. Communication
- 4. Lawful competencies
- 5. ICT / Computer science
- 6. Energy management
- 7. Environmental engineering
- 8. Production engineering





- 9. Product design
- 10. Service design
- 11. Social sciences
- 12. Biotechnology
- 13. Agronomy
- 14. Other
- Figure 18. Percent distribution of company responses regarding the fields of needed competences for new employees/collaborators

#### 4. KNOWLEDGE REQUIRED BY THE LABOUR MARKET FOR AN ENTREPRENEURIAL CAREER IN CIRCULAR ECONOMY IN RURAL AREAS

#### **Case Processing Summary**

|       |                       | Ν  | %     |
|-------|-----------------------|----|-------|
| Cases | Valid                 | 23 | 100,0 |
|       | Excluded <sup>a</sup> | 0  | ,0    |
|       | Total                 | 23 | 100,0 |

a. Listwise deletion based on all variables in the procedure.

**Table 13.** Reliability statistics (Cronbach's Alpha) for the knowledge required by the labour

 market for an entrepreneurial career in circular economy in rural areas

|                         | Scale<br>Mean if<br>Item<br>Deleted | Scale Variance<br>if Item<br>Deleted | Corrected<br>Item-Total<br>Correlation | Cronbach's<br>Alpha if Item<br>Deleted |
|-------------------------|-------------------------------------|--------------------------------------|--|--|
| KNOWLEDGE OF THE        | 11,48                               | 20,443                               | ,349                                   | ,802                                   |
| REGIONAL SUPPLY CHAINS  |                                     |                                      |  |  |
| KNOWLEDGE OF            | 11,39                               | 20,522                               | ,357                                   | ,801                                   |
| METHODOLOGIES           |                                     |                                      |  |  |
| KNOWLEDGE OF MAPPING    | 11,52                               | 20,625                               | ,300                                   | ,804                                   |
| KNOWLEDGE OF            | 11,78                               | 19,269                               | ,672                                   | ,786                                   |
| COMMUNICATION           |                                     |                                      |  |  |
| TECHNIQUES              |                                     |                                      |  |  |
| KNOWLEDGE OF THE I.T    | 11,78                               | 19,451                               | ,625                                   | ,788                                   |
| SOLUTIONS FOR C.E.      |                                     |                                      |  |  |
| KNOWLEDGE OF THE IMPACT | 11,70                               | 21,312                               | ,153                                   | ,812                                   |
| OF ECONOMIC DECISION    |                                     |                                      |  |  |





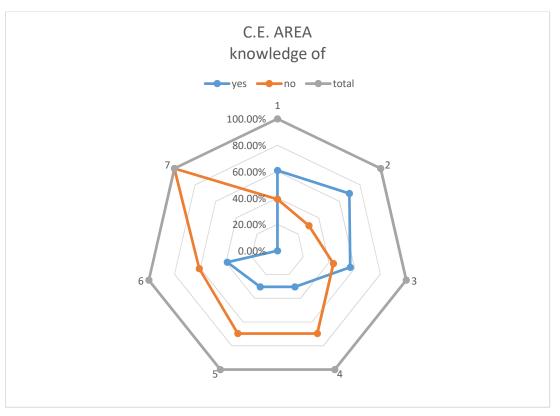
| KNOWLEDGE OF OTHERS C.E.    | 12,09 | 22,265          | ,000         | ,810                                    |
|-----------------------------|-------|-----------------|--------------|---|
| AREA<br>KNOWLEDGE OF THE    | 11.26 | 21 111          | 202          | 90E                                     |
| PROCESSES FOR THE HIGHER    | 11,26 | 21,111          | ,282         | <i>,</i> 805                            |
| VALORISATION OF BY          |       |                 |              |   |
| PRODUCTS                    |       |                 |              |   |
| KNOWLEDGE OF THE WASTE      | 11,26 | 21,383          | ,204         | ,808                                    |
| MANAGEMENT                  | 11,20 | 21,305          | ,204         | ,000                                    |
| KNOWLEDGE OF THE            | 11,61 | 20,704          | ,280         | ,806                                    |
| MEASUREMENT OF THE          | 11,01 | 20,701          | ,200         | ,000                                    |
| ENVIRONMENTAL IMPACT        |       |                 |              |   |
| KNOWLEDGE OF THE            | 11,52 | 19,715          | ,509         | ,794                                    |
| TECHNOLOGICAL INNOVATION    | 11,01 | 10,710          | ,000         | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| IN C.E.                     |       |                 |              |   |
| KNOWLEDGE OF OTHER          | 12,09 | 22,265          | ,000         | ,810                                    |
| INDUSTRIAL PROCESSES AREA   | ,     | ,               | ,            | ,                                       |
| KNOWLEDGE OF THE            | 11,43 | 20,802          | ,276         | ,805                                    |
| ASSESSMENT OF THE NATURAL   | ,     | ,               | ,            | ,                                       |
| RESOURCE CAPACITY OF THE    |       |                 |              |   |
| TERRITORY                   |       |                 |              |   |
| KNOWLEDGE OF THE            | 11,26 | 22,111          | ,001         | ,815                                    |
| TECHNOLOGIES FOR            |       |                 |              |   |
| SUSTAINABLE EXPLOITATION    |       |                 |              |   |
| OF RENEWABLE ENERGY         |       |                 |              |   |
| SOURCES                     |       |                 |              |   |
| KNOWLEDGE OF THE            | 11,78 | 20,814          | ,286         | ,805                                    |
| TECHNOLOGY FOR              |       |                 |              |   |
| SUSTAINABLE EXPLOITATION    |       |                 |              |   |
| OF THE LOCAL RAW MATERIALS  |       |                 |              |   |
| KNOWLEDGE OF OTHER          | 12,04 | 22,225          | -,002        | ,811                                    |
| RESOURCE MANAGEMENT         |       |                 |              |   |
| AREA                        |       |                 |              |   |
| KNOWLEDGE OF THE            | 11,52 | 20,897          | ,240         | ,807                                    |
| CHARACTERISTICS OF BUSINESS |       |                 |              |   |
| MANAGEMENT                  |       |                 |              |   |
| KNOWLEDGE OF THE BUSINESS   | 11,57 | 20,802          | ,258         | ,807                                    |
| MANAGEMENT                  |       |                 |              |   |
| KNOWLEDGE OF THE NEW        | 11,83 | 19,877          | ,546         | ,793                                    |
| CIRCULAR BUSINESS MODELS    |       |                 |              |   |
| KNOWLEDGE OF THE BUSINESS   | 11,70 | 19 <i>,</i> 585 | <i>,</i> 550 | ,791                                    |
| PLAN DEVELOPMENT            |       | I               |              |   |





| KNOWLEDGE OF THE         | 11,74 | 19,747 | ,527 | ,793 |
|--------------------------|-------|--------|------|------|
| MARKETING PLAN DESIGN    |       |        |      |      |
| KNOWLEDGE OF THE         | 11,65 | 19,601 | ,536 | ,792 |
| OPPORTUNITY INVESTMENTS  |       |        |      |      |
| FOR C.E.                 |       |        |      |      |
| KNOWLEDGE OF OTHER       | 12,09 | 22,265 | ,000 | ,810 |
| BUSINESS AREA            |       |        |      |      |
| KNOWLEDGE OF NORMS AND   | 11,35 | 20,328 | ,429 | ,798 |
| LEGISLATION FOR          |       |        |      |      |
| ENVIRONMENTAL PROTECTION |       |        |      |      |
| KNOWLEDGE OF NORMS AND   | 11,22 | 21,451 | ,218 | ,807 |
| LEGISLATION FOR WASTE    |       |        |      |      |
| MANAGEMENT               |       |        |      |      |
| KNOWLEDGE OF THE COST OF | 11,52 | 19,715 | ,509 | ,794 |
| MEETING STANDARDS        |       |        |      |      |
| KNOWLEDGE OF OTHER       | 12,09 | 22,265 | ,000 | ,810 |
| LEGISLATION AREA         |       |        |      |      |
|                          |       |        |      |      |

#### 4.1. Knowledge of Circular Economy area





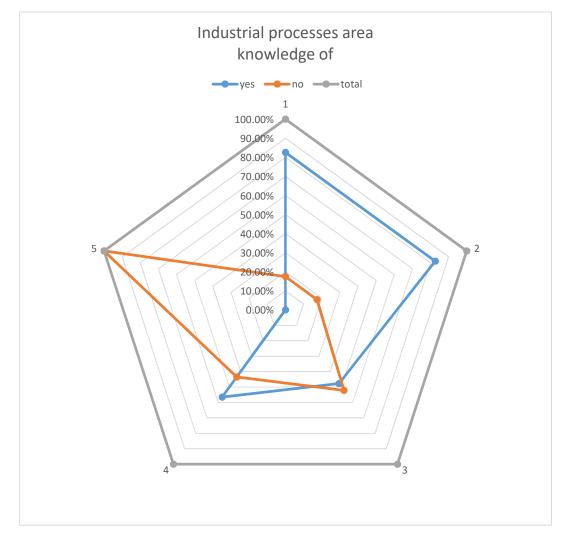


#### Legend

- 1. KNOWLEDGE OF THE REGIONAL SUPPLY CHAINS
- 2. KNOWLEDGE OF METHODOLOGIES
- 3. KNOWLEDGE OF MAPPING
- 4. KNOWLEDGE OF COMMUNICATION TECHNIQUES
- 5. KNOWLEDGE OF THE I.T SOLUTIONS FOR C.E.
- 6. KNOWLEDGE OF THE IMPACT OF ECONOMIC DECISION
- 7. KNOWLEDGE OF OTHERS C.E. AREA

Figure 19. Percent distribution of company responses regarding knowledge of circular economy area

#### 4.2. Knowledge of industrial processes area



#### Legend



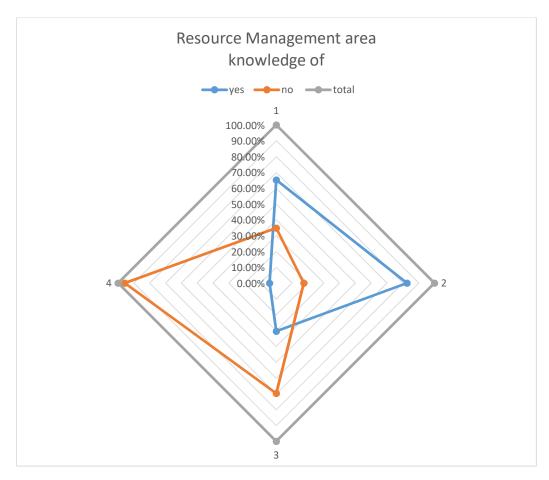


1. KNOWLEDGE OF THE PROCESSES FOR THE HIGHER VALORISATION OF BY PRODUCTS

- 2. KNOWLEDGE OF THE WASTE MANAGEMENT
- 3. KNOWLEDGE OF THE MEASUREMENT OF THE ENVIRONMENTAL IMPACT
- 4. KNOWLEDGE OF THE TECHNOLOGICAL INNOVATION IN C.E.
- 5. KNOWLEDGE OF OTHER INDUSTRIAL PROCESSES AREA

Figure 20. Percent distribution of company responses regarding knowledge of industrial processes area

#### 4.3. Knowledge of resource management area



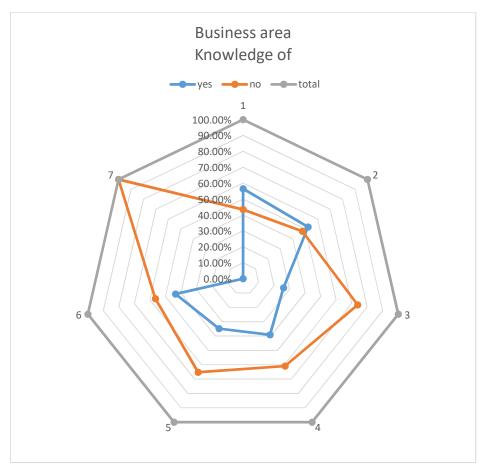
#### **Legend**





- 1. KNOWLEDGE OF THE ASSESSMENT OF THE NATURAL RESOURCE CAPACITY OF THE TERRITORY
- 2. KNOWLEDGE OF THE TECHNOLOGIES FOR SUSTAINABLE EXPLOITATION OF RENEWABLE ENERGY SOURCES
- 3. KNOWLEDGE OF THE TECHNOLOGY FOR SUSTAINABLE EXPLOITATION OF THE LOCAL RAW MATERIALS
- 4. KNOWLEDGE OF OTHER RESOURCE MANAGEMENT AREA
- Figure 21. Percent distribution of company responses regarding knowledge of resource management area

#### 4.4. Knowledge of Business area



#### <u>Legend</u>





- 1. KNOWLEDGE OF THE CHARACTERISTICS OF BUSINESS MANAGEMENT
- 2. KNOWLEDGE OF THE BUSINESS MANAGEMENT
- 3. KNOWLEDGE OF THE NEW CIRCULAR BUSINESS MODELS
- 4. KNOWLEDGE OF THE BUSINESS PLAN DEVELOPMENT
- 5. KNOWLEDGE OF THE MARKETING PLAN DESIGN
- 6. KNOWLEDGE OF THE OPPORTUNITY INVESTMENTS FOR C.E.
- 7. KNOWLEDGE OF OTHER BUSINESS AREA

Figure 22. Percent distribution of company responses regarding knowledge of business area

#### 4.5. Knowledge of legislation area



#### Legend





- 1. KNOWLEDGE OF NORMS AND LEGISLATION FOR ENVIRONMENTAL PROTECTION
- 2. KNOWLEDGE OF NORMS AND LEGISLATION FOR WASTE MANAGEMENT
- 3. KNOWLEDGE OF THE COST OF MEETING STANDARDS
- 4. KNOWLEDGE OF OTHER LEGISLATION AREA

Figure 23. Percent distribution of company responses regarding knowledge of legislation area

## 5. PERSONAL SKILLS REQUIRED FOR A SUCCESSFUL IMPLEMENTATION OF CIRCULAR ECONOMY IN RURAL AREAS

5.1 Personal skills considered by the companies to be the most helpful for anyone wishing to work in the circular economy business in rural areas

**Reliability Statistics** 

| Cronbach's Alpha | N of Items |
|------------------|------------|
| ,435             | 14         |

**Table 14.** Reliability statistics (Cronbach's Alpha) for the personal skills required for a successful implementation of circular economy in rural areas

|                   |               | Scale Variance | Corrected   | Cronbach's    |
|-------------------|---------------|----------------|-------------|---------------|
|                   | Scale Mean if | if Item        | Item-Total  | Alpha if Item |
|                   | Item Deleted  | Deleted        | Correlation | Deleted       |
| MANAGING AN       | 4,35          | 5,146          | -,206       | ,518          |
| INTERDISCIPLINARY |               |                |             |               |
| TEAM              |               |                |             |               |
| WORKING IN A TEAM | 4,48          | 4,261          | ,252        | ,388          |
| WITH DIFFERENT    |               |                |             |               |
| COMPETENCES       |               |                |             |               |

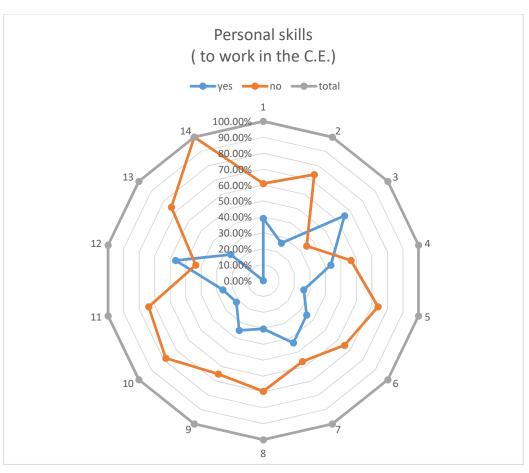


Co-funded by the Erasmus+ Programme of the European Union

| COACHING SKILLS       | 4,09 | 4,719 | -,013 | ,464 |
|-----------------------|------|-------|-------|------|
| ORGANIZING ACTIVITIES | 4,30 | 3,949 | ,359  | ,348 |
| NEGOTIATION AND       | 4,48 | 4,352 | ,200  | ,402 |
| CONFLICT RESOLUTION   |      |       |       |      |
| SKILLS                |      |       |       |      |
| COMMUNICATIONS        | 4,39 | 3,794 | ,473  | ,313 |
| SKILLS                |      |       |       |      |
| OBSERVATION SKILLS    | 4,30 | 4,130 | ,263  | ,380 |
| DEALING WITH CHANGES  | 4,43 | 4,348 | ,183  | ,407 |
| SELF MOTIVATION       | 4,39 | 4,522 | ,082  | ,437 |
| TIME MANAGEMENT       | 4,52 | 4,261 | ,002  | ,382 |
| QUICK AND EFFECTIVE   | 4,48 | 4,261 | ,252  | ,388 |
| DECISIONS             | .,   | .,    | )===  | ,    |
| FLEXIBILITY           | 4,17 | 4,968 | -,131 | ,499 |
| DIGITAL COMPETENCES   | 4,48 | 4,443 | ,150  | ,416 |
| OTHER                 | 4,74 | 4,929 | ,000  | ,438 |







#### Legend

- 1. MANAGING AN INTERDISCIPLINARY TEAM
- 2. WORKING IN A TEAM WITH DIFFERENT COMPETENCES
- 3. COACHING SKILLS
- 4. ORGANIZING ACTIVITIES
- 5. NEGOTIATION AND CONFLICT RESOLUTION SKILLS
- 6. COMMUNICATIONS SKILLS
- 7. OBSERVATION SKILLS
- 8. DEALING WITH CHANGES
- 9. SELF MOTIVATION
- **10. TIME MANAGEMENT**
- **11. QUICK AND EFFECTIVE DECISIONS**
- 12. FLEXIBILITY
- **13. DIGITAL COMPETENCES**
- 14. OTHER

**Figure 24.** Percent distribution of company responses regarding the personal skills required for a successful implementation of circular economy in rural areas