





Erasmus+

DEVELOPMENT OF **INNOVATION PROJECT**

2016-1-TR01-KA202-33958

CLEAN-kWAT

Integrating Environmental Considerations into

Energy Systems Development

Initial Activity Evaluation Report

PREPARED BY:

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PROJECT SUMMARY

The Rationale

In Turkey and in Europe, number of institutional and legislative elements of environmental reform, as well as the infrastructure development, have been put on the agenda as part of the environmental planning and education where development of energy systems that protect the environment is an important part. Since energy systems, especially fossil fuelled, leads to global warming, the energy systems designs must be done according to the rules of environmental protection and prevent the destruction of natural resources.

In the energy departments in many universities in Turkey there are no obligatory courses related to environmental impact of energy supply. Since the departments for energy systems engineering show increasing trend in recent years, there is a need for supporting education with training materials, especially with innovative ones. Therefore, the main target group of this project is energy systems designers and engineering students in related departments mainly in energy systems engineering.

The European Qualification Framework (EQF) aims to make National Qualification (NQF) understandable in Europe to allow the mobility of workers between countries and to make common learning system. It is necessary to enhance the quality and performance of VET system through improving guidance systems, promoting creativity, innovation and sharing EU experience in the field of education and training.





The CLEAN-kWAT project will address these issues through development of Learning Outcomes based training systems and redefinition of competence standards. It will highlight required skills and competences for working in energy supply sector, adapt and develop courses in accordance with this and use ICT in teaching and learning activities.

The main focus is to develop Strategic Partnership and share knowledge and experience between partners that are recognized to be national experts in the environmental and energy sectors

The Main Aims

The main project's focus is to develop and launch a Strategic Partnership framework in the field of sustainable development of energy supply sector with environmental concerns leading to the establishment of a joint trans-European competence based training VET model regarding the shift of EU labour market towards smart and green jobs. The model will be based on an EQF framework & on established national models, methods & experiences in the partner countries.

The Objectives

Since energy systems including the renewable have impact on environment and nature, the engineers and engineer candidates are lack of knowledge on the functions of ecosystems and ecological mechanisms and the training materials and techniques are not inclusive enough, in addition to technical



CLEAN KWAT







aspects energy systems design processes including the energy systems development, it is certainly required to integrate environmental concerns deeply as well. Along this line, the project focuses on the 'impacts of energy systems including renewables on the environment and nature' and it is aimed to train energy systems designers and students on the vulnerability and fragility of ecosystems and nature.

The objectives are comprised of an innovative approach based on EQF and ECVET principles; design of blended learning program; build up a broad multilanguage learner-centred e-platform; set up a structural model based on the specific needs of education of VET professionals and arrangement of VET pathways; testing/valorisation of the CLEAN-kWAT outcomes.

The Results

• Training book on Integrating Environmental Considerations into Energy System Development: The book covers technological and environmental aspects of conventional energy production systems (thermal power plants) and renewable energy sources (nuclear, wind, wave and tidal, geothermal, hydrogen gas, biomass).

• Documentaries (visual training materials): They will be produced for each chapter of the Training book and distributed on DVD and YouTube.

• Description of the Qualifications, Learning Objectives and European components: It contains descriptions of the selected professions in the Energy field in participating countries with defined knowledge, skills and competences for these professions.









• E-learning Portal: This knowledge data base will provide competence based carrier development. Besides project information, it will have interactive e-learning environment with training courses

The Consortium

The CLEAN-kWAT consortium has been organized & based on the different backgrounds and strengths of each partner. It includes 8 partners from 5 countries – TR, SP, HU, RS and GE, and is composed of 3 Universities, 2 Research & Training Centre, 1 NGO & 2 SME's.

In addition, the CLEAN-kWAT consortium's members have a wide range of experience in national/EU programs; they possess the necessary capability, expertise and competence for implementation of the CLEAN-kWAT projects and successfully achieve its objectives-based training.

The Main Outcomes

The main outcomes of the CLEAN-kWAT project are:

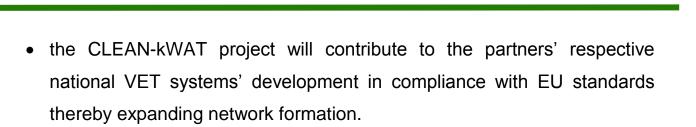
- delivery of system for structural description of work-related competences
- organization of interactive technical support system with multilingual operational capacity
- introduction of educational support services, including novel training opportunities for VET professionals
- personalization of learning paths of specialized knowledge
- planning and performance of project testing
- evaluation and valorisation





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Duration: 1 October 2016 – 30 September 2018



CLEAN KWAT







Partners and Contacts:

P#	Partners	Contact Persons
P0	GİRESUN UNIVERSİTY	Ms. Başak Taşeli Mrs. Duygu Altıok Mr. Evren Altıok
P1	ORKON INTERNATIONAL ENGINEERING TRAINING CONSULTING CO.INC.	Mrs. Altan Dizdar Mr. Ertuğrul Dizdar
P2	GAZİ UNIVERSİTY	Mrs. Gamze Yücel Işıldar Ms. Feriha Yıldırım
P3	RENEWABLES ACADEMY (RENAC) AG	Ms.Manolita Wiehl Ms.Uta Zahringer
P4	KALI ENERGY SOLUTIONS CO.	Mrs. Şahika Kardam Mr. Mehmet Ali Kardam
P5	ASOCIACION AMIGOS DE EUROPA LEONARDO DA VINCI	Mr. Jose M. Daza Mr. Antonio Enamorado
P6	UNIVERZITET U BEOGRADU	Mr Branislav Zivkovic Mr. Aleksandra Sretenovic
P7	ENERGIAKLUB SZAKPOLITIKAI INTEZET MODSZERTANI KOZPONT EGYESULET	Ms. Cecilia Lohasz









PROJECT EVALUATION APPROACH

This is the initial activity evaluation report to be produced regarding the Erasmus+ CLEAN-kWAT project. It is focused on the initial stages of the project, the review of tasks/outcomes, and the general operational approach, including:

- a review of project materials and approaches regarding activities, particularly focused on objectives and results as well as the assessment of the activity tasks,
- the completion of a monitoring report providing information about the project implementation process through collecting and analyzing data received from the partners about their activities.

This is the regular systematic collection and analysis of information to track the progress of a project implementation against pre-set targets and objectives.

Evaluation analyzes why intended results were or were not achieved, assesses specific casual contributions of activities to results, examines implementation process, explores unintended results, provides lessons, highlights significant accomplishments or program potential and offers recommendations for improvement. As established in the CLEAN-kWAT evaluation plan, the **evaluation approach** is designed to judge the degree of success of the project in a conventional output/outcome format at its conclusion, as well as to directly support the achievement of project objectives through a process of regular progress review and feedback. It also includes the review of the agreed activity tasks, and assessing partnership strengths and weaknesses. This involves









capturing successes and avoiding difficulties as they might arise through recommended actions that are designed to minimise the incidence of barriers to the successful completion of the project.

Timely generation of project outputs will be monitored and partners will be informed through monitoring reports twice a year to demonstrate the project's state of play and to take precautions if necessary. By monitoring we detect possible problems quickly with regular reporting, helping foresee the possible delays and to evaluate technical solutions to keep the project on track.

Every information sent by partners are used and the results and recommendations of the monitoring and evaluation should be followed for a successful ending of our project.









Evaluation of the CLEAN-kWAT Project's Activities

Methodology

The main objective of the CLEAN-kWAT activities evaluation report is to identify the strengths and weaknesses of the activities and the project as a whole.

In CLEAN-kWAT project; internal monitoring and evaluation is carried out and project progress is monitored through questionnaires and on the basis of work plan.

Partners were asked to complete the questionnaire distributed by KALIENERGY as part of Activity 7's (Monitoring and Evaluation) responsibilities. The respondents were asked to rate the questions/statements accuracy on a scale from 1 to 10 (1 = not at all and 10 = excellent; where 2-8 represents varying degrees in between), except one question where there is a checklist, and a comment space for each question was provided for the respondents, so they could write in their own words any thoughts or concerns.









SUMMARY OF QUESTIONNAIRE ANSWERS

- Partners believe that goals and the objectives of the Project will be achieved on time since the partners are well motivated.
- 2) Although some deadlines need be shifted because of the late start of the project, partners are doing an effort for being on time with each task.
- **3)** The results of this project will be a source of inspiration for the creation of other new projects.
- 4) The training material will reach the target groups.
- 5) Overall the activity coordination is good,
- 6) The coordinators of the activities are clear and available,
- 7) The time management/timing of the project activities is appropriate,
- 8) The coordinator of the activities are highly involved in the project,
- **9)** The activity **coordinator takes** into account the **suggestions** and contributions by the partners,
- 10) The products that will be produced in activities are suitable,
- 11) The products are appropriate for the target group,
- 12) The respect to the deadlines is taken into consideration by all partners,









- 13) The products comply with the activity's aims and objectives.
- 14) Since the project started late, some of the activities did not start in the first 6 months of the project. Therefore partners have not enough idea about the progress of these activities.

OVERALL WORK PACKAGE RESULTS

The **overall score** of **9.13** for the CLEAN-kWAT activities, based on the response from the partnership, reflects a high level of satisfaction with CLEAN-kWAT project outcomes and working methods.

Average Rating

The Objectives and Results overall average is 8.93.

"Insufficient national financial resources to follow-up on the project" and "Lack of national priority/commitment to this type of development" were checked as the factors that are most likely to limit the sustainability of the project effects and impact. "Insufficient involvement/participation by beneficiaries" shows limiting factor. "Non-economic as less up attractiveness/viability of the outputs developed by the project", "Lack of social/political realism in project outputs/recommendations" and "Low level of achievement of project objectives" are least likely to limit the impacts. One of the partners checked "none" option.









Activity ratings are given below;

- o <u>Activity 1</u>'s overall **average** is **9.33**.
- o <u>Activity 2</u>'s overall **average** is **9.27**.
- o <u>Activity 3</u>'s overall average is 9.14.
- o <u>Activity 4</u>'s overall average is 8.95.
- o <u>Activity 5</u>'s overall **average** is **8.97**.
- o <u>Activity 6</u>'s overall **average** is **8.51**.
- o <u>Activity 7</u>'s overall average is 9.61.
- o <u>Activity 8</u>'s overall average is 8.81.

EVALUATION NOTE

The results indicate that the CLEAN-kWAT project partners are satisfied with the results of the project. Although the project started late, the motivation and background of partners give strength to the project to close the gap.

The following section includes the questionnaire questions/statements with graphic illustrations of the results.





PROJECT CLEAN-kWAT

Initial Activity Evaluation Annex



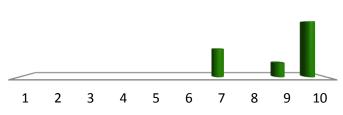




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OBJECTIVES and RESULTS

1) As you go through the Project do you think that the goals and the objectives of the Project and the expected results were ready on due time?



Satisfaction Level

Comments:

- -Outputs might be ready before due time©
- -Yes, all the partners are well equipped in the subject and they are hard-working partners so I am sure all the expected results will be ready on time.
- -It's early for giving an answer, although whole partners are motivated and ready for working
- -We have few month delay at the beginning, so hopefully we will catch up
- 2) Do you believe that Project ran according the Activities set before in terms of time management and contents? If not, Please explain the reasons.









Comments:

-If we are late, we can manage to catch up the time easily again, so we will be running the project according to the activities set before in terms of time management and contents.
-I think so, whole the partners are doing an effort for being on time with each task, after the delay of the beginning of 1st partnes meeting

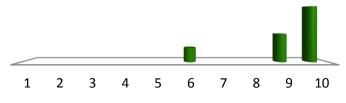
-The Project has officially started on 1st October 2016, but in fact the Project has started with the kick-off meeting in March 2017. It is to be expected that some deadlines should be shifted.





3) Do you believe that the results that will be obtained in this project will be a source of inspiration for the creation of other new projects? If yes, how? If not, why?





Comments:

-This is a first step in the direction of environmental impacts being integrated into existing technical courses

-Yes, the subject is very interesting indeed and I am sure this will lead to more interesting projects in the future.

-Whole partner are open to new proposal and enthusiastic with results

-Can not be judged at the moment, let's be hopeful and aim for it

-We hope that Project results will be highly evaluated and useful for students.

4) Do you think that this Project will be sustainable in terms of its results and outcomes?





- -It will be a good start for creationg learning outcome usefull for ECVET credit validation in futires mobility project
- 5) Do you believe that the tools under development exhibit a level of flexibility and adjustment to changing conditions and needs with regards to the target groups identified?







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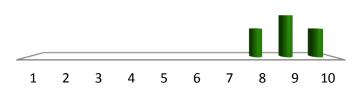




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6) To what extent do you believe that the training material that is developedoffer professional advice for the target groups reached?

Satisfaction Level



Comments:

Erasmus+

- -As the subject is an interesting one, it will pull the attraction of the target group very much, -I am sure we will obtain professional training in the scope of the project.
- -At least in Turkey who is the promoter and has designed the project according to their Curricula needs

7) What can you say about the innovative aspect of the materials that are produced in the project?



Comments: We are ending the National report, and after it we will give a concrete answer according to the result in Spain, and see if the material we are going to carry out is part of the current curricula of the Spanish studies of the selected professional profiles







8) Which of the following factors are most likely to limit the sustainability of the project effects and impact?

X Non-economic attractiveness/viability of the outputs developed by the project
Technical weaknesses in project outputs/recommendations
Lack of attention to natural resource sustainability
X Lack of social/political realism in project outputs/recommendations
X X Insufficient involvement/participation by beneficiaries
X X X X Insufficient national financial resources to follow-up on the project
X X X X Lack of national priority/commitment to this type of development
X Low level of achievement of project objectives
X X None
Other (specify):.....

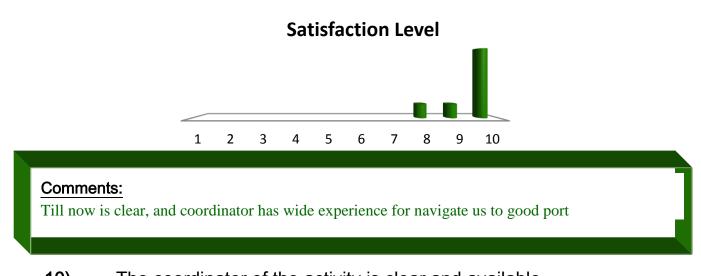


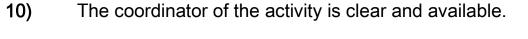


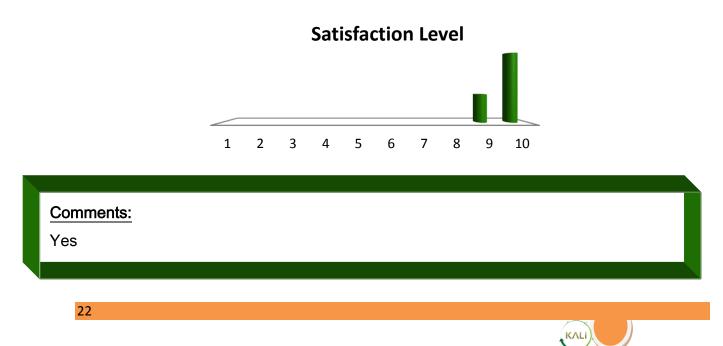
Activity1:Project Organisation & Management

Coordinator: GIRESUN+ORKON

9) The overall activity management is good.









11)The coordinator of the activity is working very successfully.





12) The time management of the activity is appropriate.





Comments:

We have to see, it's so early now



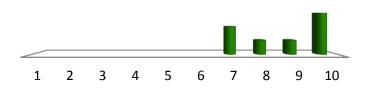
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13) Respect to the deadlines is appropriate and takes into account consideration of other project partners.



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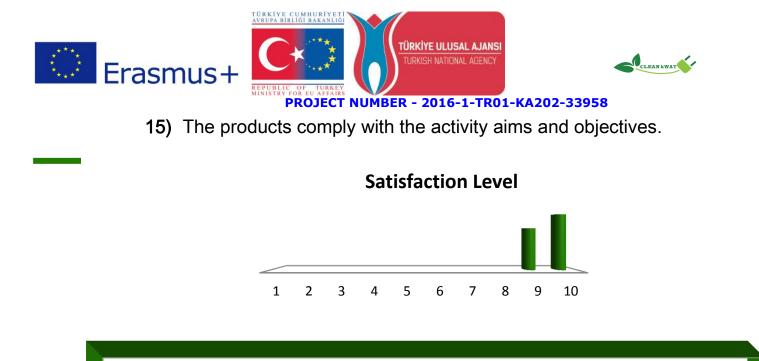


Comments:

There deadlines to modify due the delay of the beginning of the project and the lack of the incorporation of one of the partnes See comments in item 2

14) The coordinator is highly involved in the CLEAN-kWAT project.





Comments:

Yeas has been design according to aims and objectives of the project

16) Problem solving strategies are well implemented by the coordinator.



Comments: I think so although is early to say

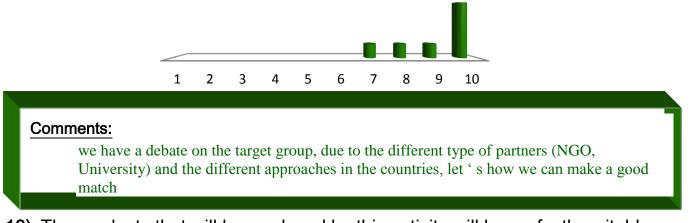


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17) The coordinator takes into account the suggestions and contributions of the other partners.

Satisfaction Level



18) The products that will be produced by this activity will be perfectly suitable for the project.









19) The products are appropriate for the CLEAN-kWAT target group.

Satisfaction Level







Activity2:Development of the Training Book

Coordinator: *GIRESUN* **Responsible partners:** *GIRESUN* + *GAZI* + *ENERGIAKLUB* + *BELGRADE*

20) The overall activity management is good.



21) The coordinator of the activity is clear and available.

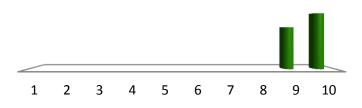






22) The coordinator of the activity is working very successfully.

Satisfaction Level

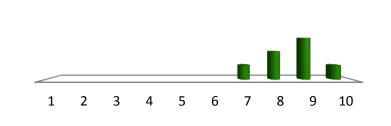


23) The time management of the activity is appropriate.



24) Respect to the deadlines is appropriate and takes into account consideration of other project partners.

Satisfaction Level





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Comments:

Some deadlines should be shifted forward due to dalay in Project start.

25)The coordinator is highly involved in the CLEAN-kWAT project.



26) The products comply with the activity aims and objectives.



Comments:

There are some differences in Project proposal (Application form) and adopted content of the book in ToR.

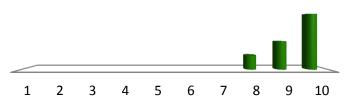


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27) Problem solving strategies are well implemented by the coordinator.





28) The coordinator takes into account the suggestions and contributions of the other partners.

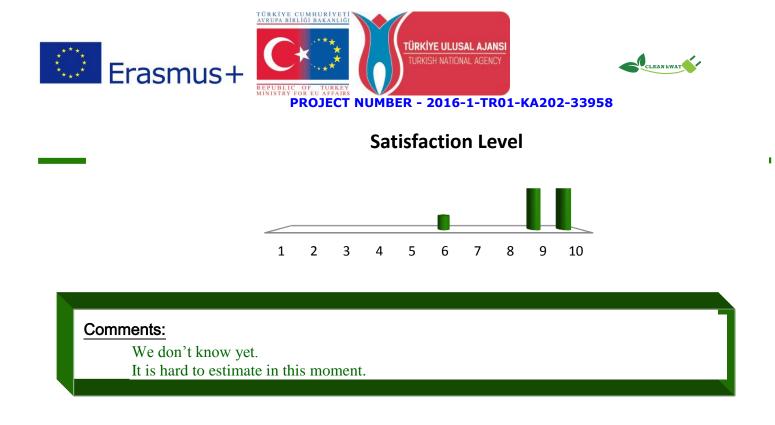


29) The products that will be produced by this activity will be perfectly suitable for the project.

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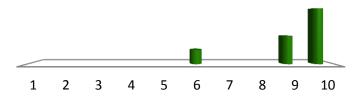


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30)The products are appropriate for the CLEAN-kWAT target group.





Comments: We have no information yet.





Activity3:Development of Documentaries

Coordinator: AELV**Responsible partners:** AELV + BELGRADE

31) The overall activity management is good.

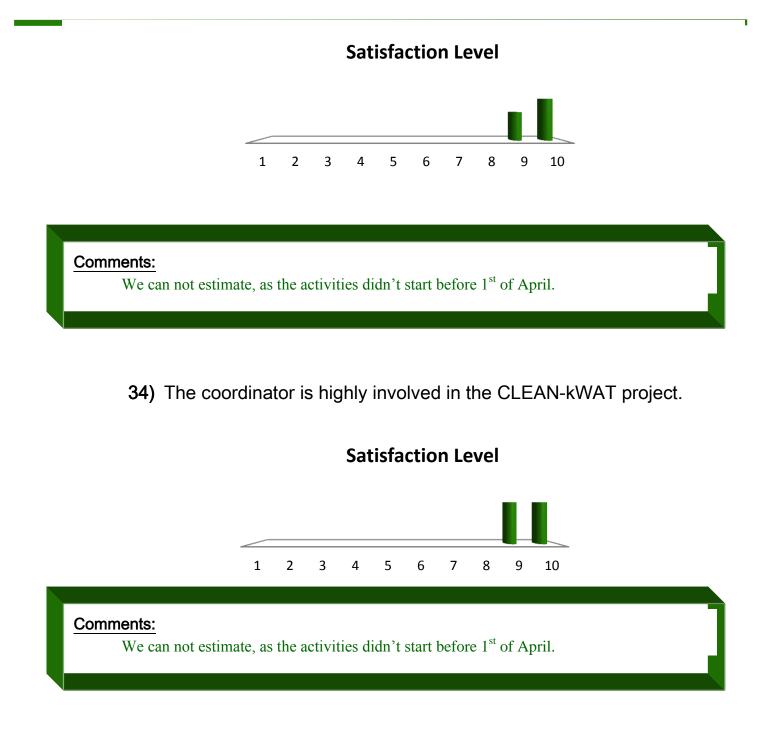






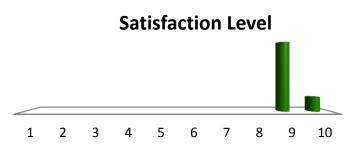
PROJECT NUMBER - 2016-1-TR01-KA202-33958

33)The coordinator of the activity is working very successfully.





35) The products comply with the activity aims and objectives.



Comments:

We can not estimate, as the activities didn't start before 1st of April.



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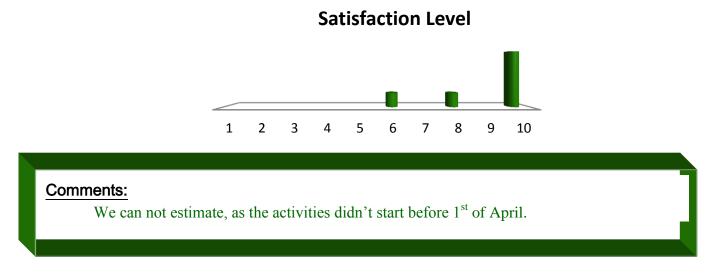




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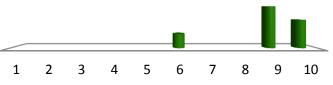
PROJECT NUMBER - 2016-1-TR01-KA202-33958

36) The products that will be produced by this activity will be perfectly suitable for the project.



37) The products are appropriate for the CLEAN-kWAT target group.













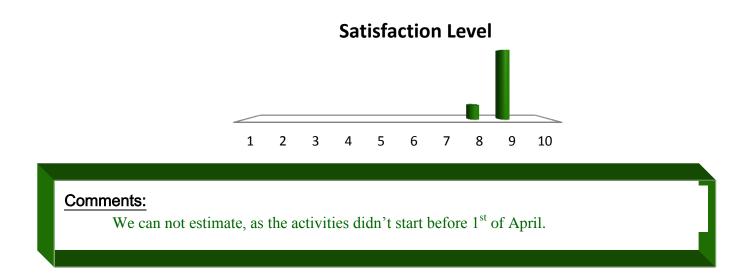


Activity4:Description of Qualifications, Learning Objectives and

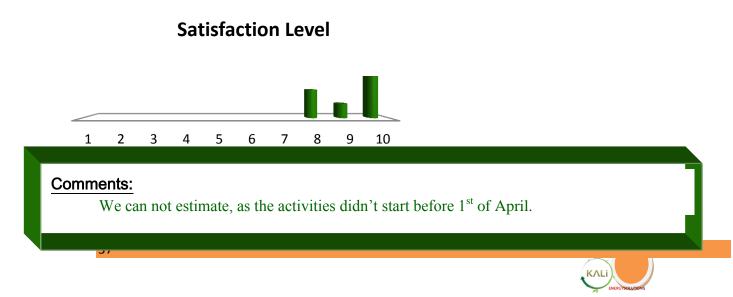
European components

Coordinator: *RENAC***Responsible partners:** *AELV* + *BELGRADE*

38) The overall activity management is good.



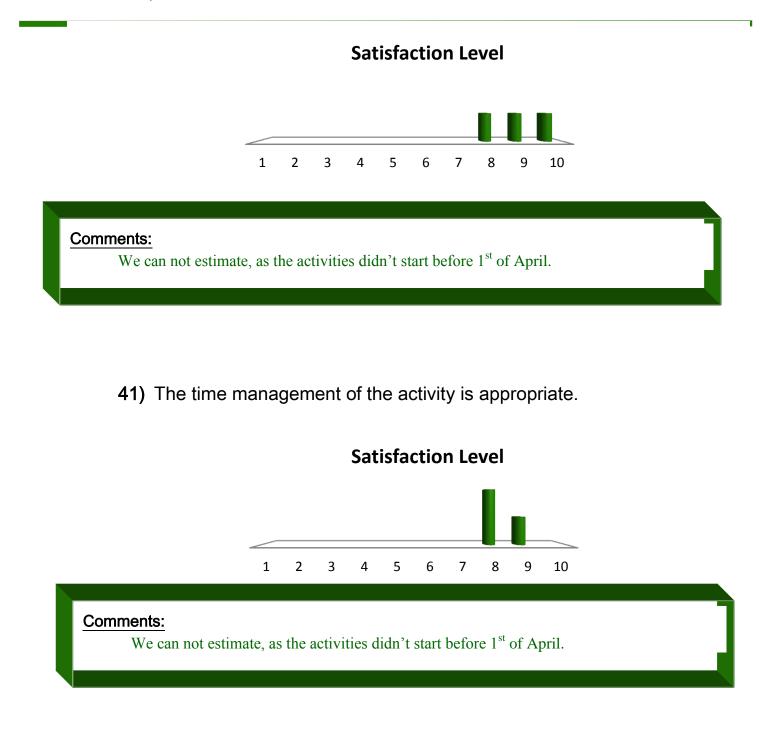
39) The coordinator of the work package is clear and available.







40) The coordinator of the activity is working very successfully.



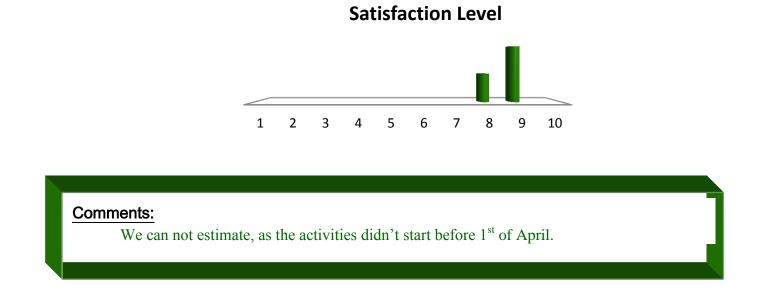




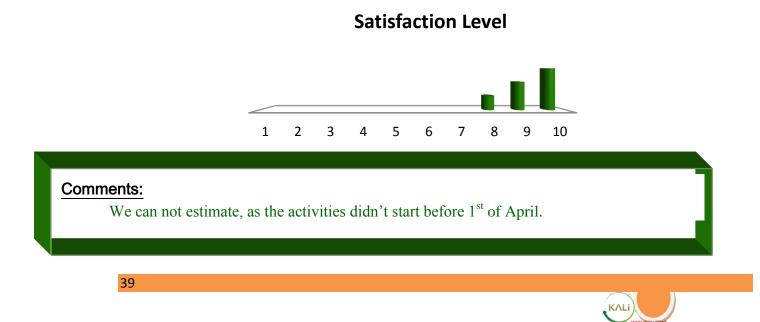
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42)Respect to the deadlines is appropriate and takes into account

consideration of other project partners.



43) The coordinator is highly involved in the CLEAN-kWAT project.







44) The products comply with the activity aims and objectives.

Satisfaction Level



45) Problem solving strategies are well implemented by the coordinator.

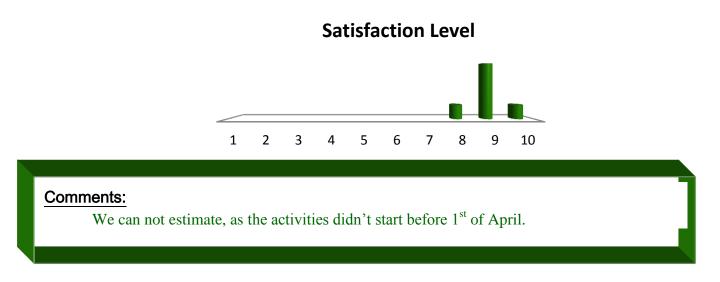




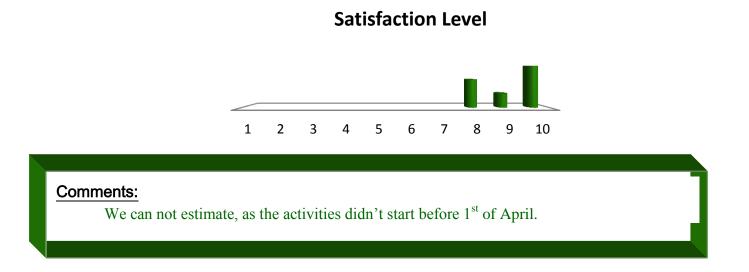




46) The coordinator takes into account the suggestions and contributions of the other partners.



47) The products that will be produced by this activity will be perfectly suitable for the project.







48)The products are appropriate for the CLEAN-kWAT target group.

Satisfaction Level



Comments:

We can not estimate, as the activities didn't start before 1st of April.



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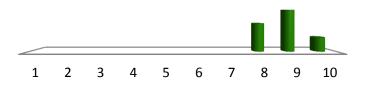


Activity5:Setting up the e-learning Portal

Responsible Partner: ORKON

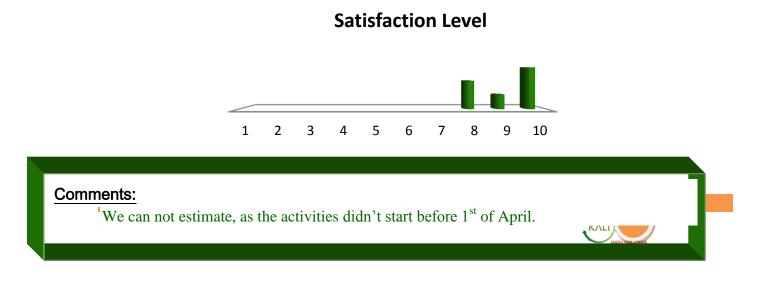
49) The overall activity management is good.





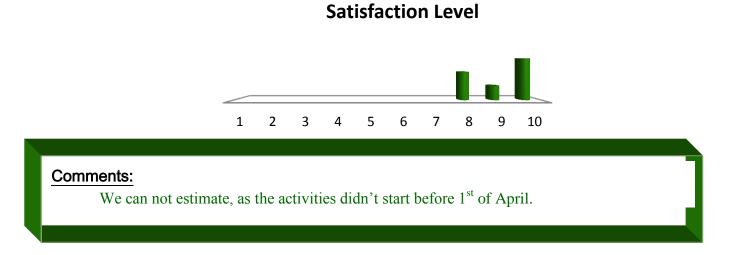


50) The coordinator of the activity is clear and available.

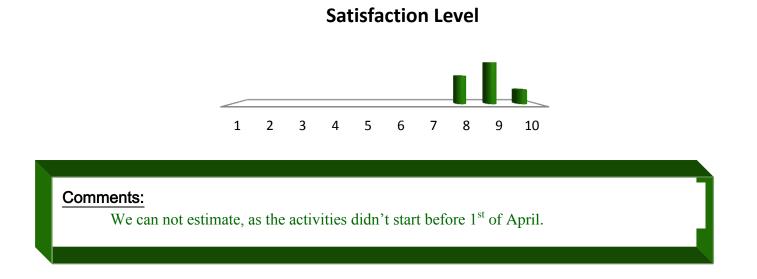




51) The coordinator is highly involved in the CLEAN-kWAT project.



52) The products comply with the activity aims and objectives.









53) The products are appropriate for the CLEAN-kWAT target group.





Comments:

We can not estimate, as the activities didn't start before 1st of April.

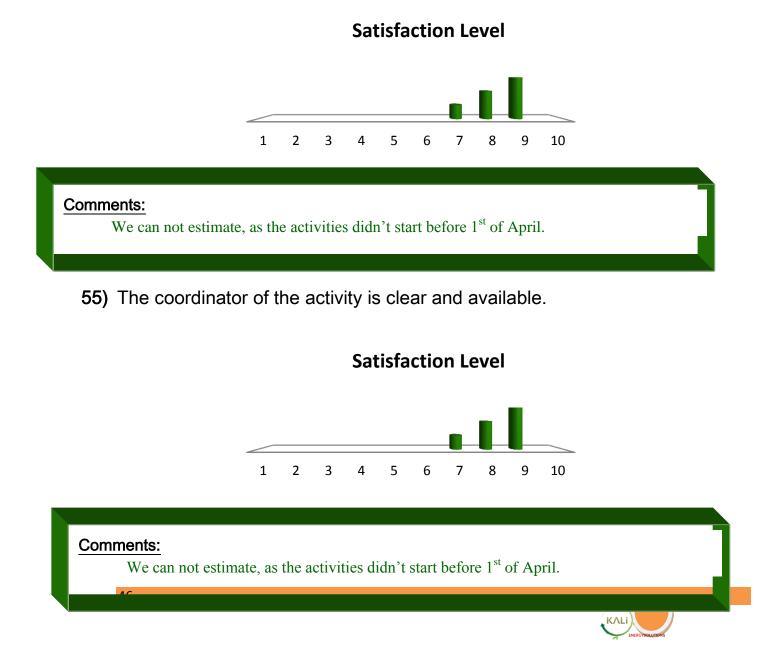




Activity 6: Testing of the Products

Coordinator: *ENERGIACLUB* **Responsible partners:** *ENERGIACLUB*+ *GIRESUN* + *GAZI* + *BELGRADE* + *ORKON* + *KALIENERGY* + *AELV* + *KALIENERGY*

54) The overall activity management is good.





56) The coordinator is highly involved in the CLEAN-kWAT project.

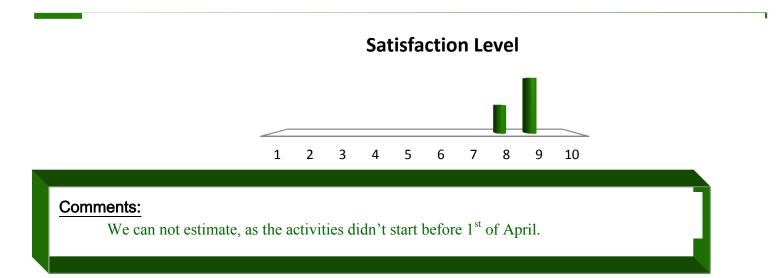


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58) The products are appropriate for the CLEAN-kWAT target group.



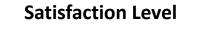


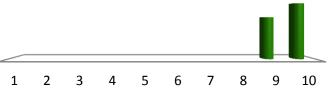


Activity7:Monitoring and Evaluation of the Project

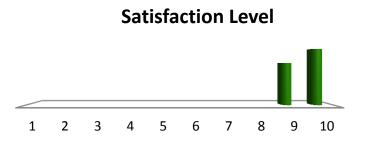
Responsible partner: *KALIENERGY*

59) The overall activity management is good.





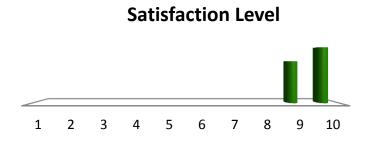
60)The coordinator of the activity is clear and available.







61) The coordinator of the activity is working very successfully.

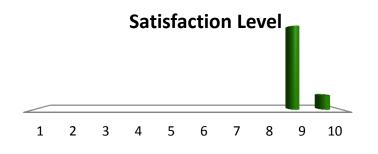


62) The time management of the activities is appropriate.

Satisfaction Level



63)Respect to the deadlines is appropriate and takes into account consideration of other project partners.



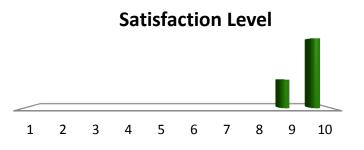




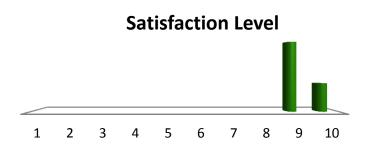


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64) The coordinator is highly involved in the CLEAN-kWAT project.



65) The products comply with the activity aims and objectives.



66)The coordinator takes into account the suggestions and contributions of the other partners.







67) The products are appropriate for the CLEAN-kWAT target group.





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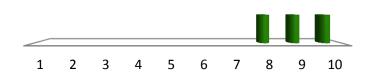
Activity8:Dissemination, Exploitation & Sustainability of the Project

Coordinator: BELGRADE

Responsible partners: *BELGRADE* + *GIRESUN* + *GAZI*+ *ENERGIAKLUB* + *AELV* + *ORKON* + *KALIENERGY*

68) The overall activity management is good.

Satisfaction Level



Comments:

We can not estimate, as the activities didn't start before 1st of April.

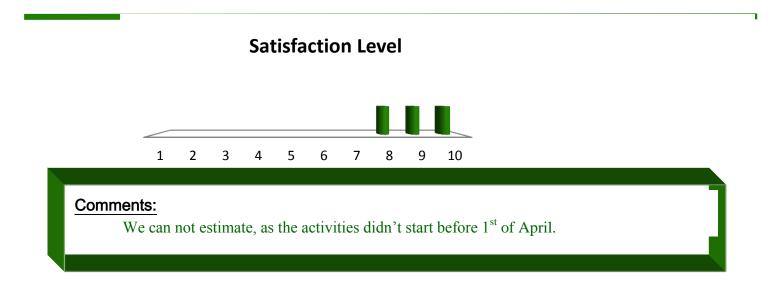
69) The coordinator of the activity is clear and available.





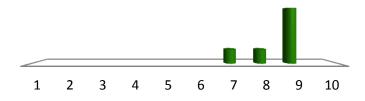


70) The coordinator of the activity is working very successfully.



71) The coordinator is highly involved in the CLEAN-kWAT project.

Satisfaction Level



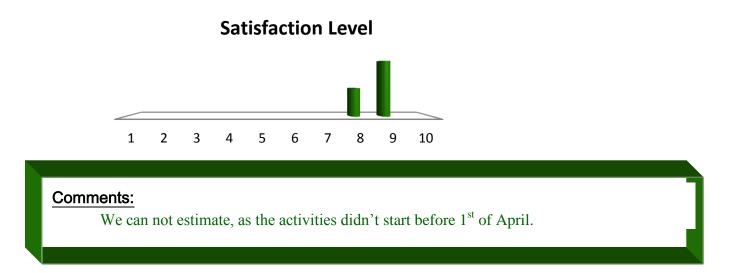
Comments:

We can not estimate, as the activities didn't start before 1st of April.





72) The products comply with the activity aims and objectives.



73) The products are appropriate for the CLEAN-kWAT target group.



