

Silver Label Certificate

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TREC Transylvania Energy Cluster

was assessed on January 10th and 11th, 2018 according to the Silver Label approach developed by the "European Secretariat for Cluster Analysis".

The cluster organisation fulfills selected indicators of the European Cluster Excellence Initiative and develops its processes and tools continuously.

The cluster organisation receives the Silver Label of Cluster Management Excellence valid until February 21st, 2020.



Thomas Lämmer-Gamp, Director ESCA



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Report on the results of the
Silver Label Assessment

TREC Transylvania Energy Cluster

Date of assessment: January 10th - 11th, 2018



Table of Contents

1	Introduction.....	3
2	Results of the Assessment	4
2.1	Gold Label Minimum Criteria.....	4
2.2	Areas Of Improvement Identified by the Cluster Management: Results of the Validation	5
2.3	Overall Assessment.....	9
3	Confirmation of Assessment	11

1 Introduction

During 2009-2012, the **European Cluster Excellence Initiative (ECEI)**, initiated by the European Commission, DG Enterprise and Industry, was aiming for the development of methodologies and tools in order to support cluster organisations to improve their capabilities in the management of networks and clusters. Within this context, 13 project partners from 9 countries – all well experienced in the field of cluster management and support – created a uniform set of cluster management quality indicators and developed a quality labelling system for professional cluster management with the aim to have this methodology and proof of evidence accepted and recognised all over Europe.

The quality labelling system consists of three levels – Bronze, Silver and Gold. While the Bronze label is not a quality label in the narrow sense, it just demonstrates that a cluster management is interested in improving its management performance, the Gold label is a quality label based on very high standards of cluster management practice. Cluster management organisations that do not meet the Gold standards yet, but are interested in demonstrating both to their cluster and potential partners that they are on the path towards cluster management excellence can subject themselves to a Silver label audit. The Silver Label of the European Cluster Excellence Initiative is a quality label in its own right. The Silver Label quality confirms the successful implementation of improvement processes that were initiated following a Bronze label benchmarking. Organisations that are able to demonstrate improvements in the course of an audit conducted by an assessor of the European Cluster Excellence Initiative will be awarded with the Silver Label. The Silver Label audit is based on three steps: 1) cluster organisations subject themselves to a second Bronze Label benchmarking and 2) indicate three areas with regard to the quality indicators of the European Cluster Excellence Initiative in which they have improved. The audit will then be continued by 3) an on-site visit by an auditor to validate the indicated areas of improvement. The criteria of the Gold Label of the European Cluster Excellence Initiative relevant to the identified areas of improvement will be used as a validation benchmark.

The **European Secretariat for Cluster Analysis (ESCA)** (www.cluster-analysis.org) has been mandated by the European Cluster Excellence Initiative to organise the assessment process and to award successful cluster organisations with the Silver Label of the European Cluster Excellence Initiative.

This **report** presents the **assessment results** for the cluster organisation

TREC TRANSYLVANIA ENERGY CLUSTER

The assessment was conducted in **Cluj (Romania)** on **January 10th-11th, 2018** by **Lucia Seel (Lucia Seel International Consulting)**. The cluster management organisation was represented by **Adrian Bot (president), Alexandra Stoica (executive manager) and Oana Raita (programme manager)**.

2 Results of the Assessment

2.1 Gold Label Minimum Criteria

Based on the benchmarking data of January 10th, 2018 and additional documentation that was provided by the cluster management in the context of the Silver Label audit the cluster organisation was evaluated against the minimum criteria of the "Cluster Management Excellence Label GOLD".

These minimum requirements are described in the document "European Cluster Excellence Baseline - Minimum Requirements for Cluster Organisations" available at www.cluster-analysis.org/downloads/20111128_European_Cluster_Excellence_BASELINE_web.pdf. Meeting these minimum requirements only is not sufficient for cluster management excellence, but can be considered as a first step towards the excellence level of "Cluster Management Excellence Label GOLD". A Silver Label of Cluster Management Excellence" can be awarded only if the excellence level of the individual minimum requirements is "green" or "yellow".

Number of indicator	Name of indicator	Excellence level of the minimum requirements
1.1.0	Committed Cluster Participation	Green
1.1.1	Composition of the Cluster Participants	Yellow
1.1.2	Number of Committed Cluster Participants in Total	Green
2.1	Maturity of the Cluster Management	Yellow
2.2.2	Qualification of the Cluster Management Team	Green
2.4	Clarity of Roles – Involvement of Stakeholders in the Decision Making Processes	Green
2.5	Direct Personal Contacts Between the Cluster Management Team and the Cluster Participants	Green
2.6	Degree of Cooperation within the Cluster	Green
2.7	Integration of the Cluster Organisation in the Innovation System	Green
4.1.1	Strategy Building Process	Green
4.1.2	Documentation of the Cluster Strategy	Green
4.1.3	Implementation Plan	Green
4.1.4	Financial Controlling System	Green
4.1.5	Review of the Cluster Strategy and Implementation Plan	Green
4.1.6	Performance Monitoring of Cluster Management	Green
4.3	Activities and Services of the Cluster Management	Yellow
4.4	Performance of the Cluster Management	Green
4.6.2	Cluster Organisation's Web Presence	Yellow

2.2 Areas Of Improvement Identified by the Cluster Management: Results of the Validation

The TREC Transylvania Energy Cluster was shaped in 2011 as an initiative developed by the Regional Development Agency North-West within the framework of an Interreg IVC project. At the beginning it was rather addressing the business needs of the SMEs, but in 2015 the focus changed towards research towards innovation within the energy industry. The new direction that is continued until today is to induce innovation in the industry by making research available to enterprises, through collaboration. In 2015 it was registered as a legal association, in a bottom-up research-driven approach. The initial number of members was 22 and it increased by the end of 2017 to 35. The members structure is currently represented by the industry (66% - out of which are 57% SMEs), research & knowledge institutions (17%) and consultants and public actors (17%).

The cluster management team applied on behalf of the INCDTIM (the National Institute of Isotopic and Molecular Technologies of Cluj-Napoca) for a large project within the framework of the Sectoral Operational Programme “Increase of Economic Competitiveness” aiming to create a pilot research laboratory for real-time testing of energy efficiency produced by photovoltaic panels and modern wind installations, as well as maximizing this efficiency according to the characteristics of the consumer. This experimental laboratory will also allow the R&D capacity in the field of alternative energies to increase research capacities in the TREC-Transylvania Energy Cluster cluster, while supporting the capacity of cluster companies to increase competitiveness and productivity on innovative bases. The project strategically includes the cluster development in the energy sector, by financing the activities and operations of the cluster management. The project volume is of around 3 Mio. EUR for 5 years (2016-2020) and it includes 2/3 public funding and 1/3 private funding. The operations of the cluster management are amounting to 450.000 EUR for 5 years.

Although young since its legal constitution, the cluster management team succeeded to grow and to develop activities with high potential for the cluster members. It managed to attract in 2 years 11 members (50% growth) and alone in 2017 it developed (preparation and submission of) 6 innovation collaboration projects. This clearly demonstrates its drive and dedication to improvement towards cluster excellence.

For the assessment of the evolution of indicators the benchmarking reports from 2015 and 2017 were taken into consideration.

- **Findings and recommendations with regard to the indicator “2.2.3 Lifelong Learning Aspects for the Cluster Management Team”.**

It is important to note that, although not assessed as one of the 3 indicators analysed (in regard to improvements during 2015-2017), also the closely-related indicator 2.2.2 “Qualification of the Cluster Management Team” is relevant for the performance of the cluster management team. The team consists of 3 members with a very high and complex qualification, having an excellent understanding of the energy sector, both from a research and business perspective:

- The president of the cluster has a PhD, has experience as top manager of a well-known research institute and a strong background in the research and management area.
- The executive manager of the cluster has an engineering background and is a BREEAM International Assessor in the field of green, sustainable buildings. In addition she has a strong experience in entrepreneurship.
- The programme/project manager is currently a PhD researcher in physics and a strong background in project management, including national and European projects.

It is therefore a natural attitude for them to continue to invest in capacity building, in the improvement of their own performance and pool of knowledge and skills.

The executive manager of the cluster followed at the end of 2016-beginning of 2017 the nZEB (near Zero Energy Buildings) professional course and in September 2016 she started the process to acquire a PhD at the UTCN (the Technical University of Cluj Napoca). She is currently pursuing the PhD by which she continuously increases her knowledge in the energy sector and gathers new contacts valuable for the cluster development.

The programme/project manager attended in 2017 the Panel 2050 series of workshops and conferences to learn the methodology of a road-mapping process necessary to create durable and sustainable energy networks at local level (municipality/community).

For 2018 it is foreseen that the cluster management team shall participate at dedicated (specialized) cluster management trainings.

The improvements are in line with the excellence criteria of the Gold Label of the Cluster Management Excellence, but there are recommendations that we would like to make for further advancing on the path towards excellence:

- To diversify and enlarge the areas of learning various skills. Currently all team members are excellent specialists in the energy field, all with engineer backgrounds, rather with technical academic backgrounds. Although the research is important to support the generation of innovation, excellent cluster management also needs a variety of soft-skills, such as communication and international promotion and branding, networking and how to manage networks, sales/attracting new cluster members in the network, etc.

- A particular area to be addressed is related to learning how to develop a modern portfolio of paying services for the cluster members.

Altogether, the correlated indicators 2.2.1. “FTEs for Cluster Organisation” (1,5 for 35 members), 2.2.2., 2.2.3 and 2.2.4 (no fluctuation of the cluster management team over the last 24 months) show all values in the green area and demonstrating the efforts made towards excellence.

- **Findings and recommendations with regard to the indicator 4.5. “Working groups”.**

The initiative to create working groups based on various thematics and gathering specialists on certain topics started at the end of 2015/beginning of 2016. The members of the clusters were invited to brainstorm and identify joint themes of interest. At the beginning, the number of themes of interest was rather high (almost double), but when members were asked to express concrete interest for one or more of them – and to commit - the number decreased to the 7 working groups presented in the description of improvements. The group leader also plays the role of motivator for idea generation.

Besides the thematic working groups, during this improvement period there were also 3 working groups that emerged from opportunities brought up by various calls for proposals. They have had as focus the preparation and submission of collaborative project proposals both at regional and national level, for Romanian programmes, as well as for Horizon 2020 and for the Urban Innovation Action 2016 Call.

All these working groups led to the preparation and submission of 7 project proposals. It is important to mention that there is a cross-cutting alignment between the work of the groups, driven by the calls. Even if the proposals are not funded, the working groups increase the degree of collaboration and help develop better relationships between the cluster members, which is after all, the core purpose of cluster development.

There is a regularity of the meetings of the working groups and this service is kept as key in the upcoming yearly planning.

The findings described above show that the development achieved during the analysed period respects the criteria for excellence. The recommendation is to continue the regular organisation of thematic working groups meetings, to keep the flexibility to update the themes and to stay open to any new ones emerging from the needs of the members. At the same time, a strong recommendation is to improve the documentation of this activity and increase the traceability of this important work. Documentation is a key part of professional management and an important tool for not only justifying the activities performed to funding bodies, but also very relevant for self-improvement. If done poorly, a lot of valuable information gets lost.

- **Findings and recommendations with regard to the indicator “4.3 Activities and services of the cluster management”.**

Over the last two years – and in particular over the last 12 months – the TREC cluster made visible efforts to further develop its portfolio of services for its cluster members.

The service in which most of the efforts flew is the development of 7 collaborative innovative project proposals, out of which one was successfully funded and 1 other is pending for approval. This is closely correlated with the activity of the working groups and strengthens the cooperation spirit/trust between the participating cluster members. Services related to the internationalisation of the members’ activities were also in focus of the cluster management, with two economic missions organised for/with the members in South Korea and Japan. These were followed by the signing of a Memorandum of Understanding between INCDTIM (the cluster’s host and key member) and the Green Energy Institute in South Korea. The cluster management team represented its members at 7 international events, opening up new concrete opportunities for them.

One new service developed by the TREC cluster is related to the “significant contribution of the cluster management to the establishment of vocational courses as well as study courses at universities” indicator. This service consists in the set-up of training and educational courses (as a special series of workshops) in 2017 dedicated to familiarize the UCTN students (Technical University of Cluj Napoca) - as a future workforce in the energy sector - with the innovation potential offered by the research facilities in the field of energy renewables and energy efficiency. The course (workshop series) consists of several groups addressing specific innovation-related themes such as project development, idea generation, etc. The course is planned to continue also in 2018 following a collaboration agreement between INCDTIM and UTCN (The Technical University of Cluj Napoca).

Also related to this area of supporting the growth of knowledge for its members, TREC was involved in the preparation of a study addressing issues of the businesses/industry community in the energy field in the North West of Romania. The study was based on a survey developed to identify the industry’s needs regarding innovation, its attitude(s) toward innovation through research. The study aimed as well to identify ways how to train entrepreneurs to make more and better use of research in the green energy sector. The database created will serve as source to attract new members (from those identified via the survey that reached in total almost 450 actors from the target group) and develop new ideas for collaboration, as well as new curricula and capacity building measures for the industry.

Although the number and the complexity of these sub-indicators (a. information, matchmaking and exchange of experience among cluster participants/b. matchmaking and networking with external partners/promotion of cluster location/c. development of human resources/d. internationalisation of cluster participants) show an increase and positive development, fulfilling the overall level requested for cluster excellence, the intense focus and resources allocated by the cluster management in these particular areas led to a neglecting of the activities related to communication aspects, both inwards and outwards.

Therefore the recommendation is to dedicate more resources and attention to communication and internal networking activities. The website needs to be regularly updated and showcase more of the services offered/activities performed by the cluster, more effort needs to be undertaken to become more visible as a cluster in the regional ecosystem (press releases, social media), the promotion materials (brochure) need to be improved, just as the internal newsletters. These need to be brought to a next level, from informative emails about events to professional newsletters, where more knowledge related to the green energy sector (in the region/country/international) acquired by the cluster can be shared.

Overall the cluster organisation shows a good performance qualifying it for the Silver Label.

2.3 Overall Assessment

Although young, the TREC cluster shows a clear dynamic approach to cluster management, showing an evolving commitment for complex and work-intensive activities such as project development and internationalization. It is also to emphasize the embedding and strong connections of the TREC cluster with the regional cluster community (The Consortium of Transylvanian Clusters) that help creating many synergies at the members level and enable cross-sectorial collaboration, too.

One of the factors for improvement lies in the further professionalization of the cluster management and it is highly recommended to participate at specialized cluster management courses available throughout Europe. These shall include aspects related to strategy development methodologies, communication (creation of a cluster brand, working with media, including social media, improvement of the cluster presence in the perception of the regional community, professionalization of promotion materials) – and development of payable services.

Although the cluster is financially stable and its financing secured for the next 3 years, it is recommended to create new types of services for which members are willing to pay and build slowly, but consistently additional sources of revenue for long-term sustainability of the cluster. For the next 3 years the cluster has excellent opportunities to create, develop and experiment with new services, increasing the potential of attracting new members.

Given the fact that INCDTIM as research institute is member of but also hosting the cluster organization (as leader of the large project), it is important in the communication to make a clear distinction between the two organizations and make efforts for a brand creation and positioning of TREC in the Transylvanian ecosystem, at national level in the Romanian cluster community and at international level

The monitoring activities shall be better structured. Overall, it is to emphasize the recommendation to continue the efforts in the area of communication, capacity building and interaction with the cluster members. In that regard particular instruments should be developed: member fiches and standardised discussion minutes; use of a CRM solution is strongly

recommended; elaboration of a communication plan with measurable inward and outward objectives should be considered as a must.

More efforts should also be put in the integration of the cluster in the regional innovation system. While succeeding the taking on board of wood and furniture into the Regional Smart Specialisation Strategy of which the merits go to Pro Wood may be considered as a huge achievement, cooperation with the University in Brasov and other technology transfer centers in the region finds itself in a declarative state.

The audit resulted in a good result in terms of cluster management performance, qualifying the cluster organisation for the Silver Label of Cluster Management Excellence.

3 Confirmation of Assessment

The assessment of **TREC TRANSYLVANIA ENERGY CLUSTER** took place on January 10th and 11th, 2018 and was conducted in due order:



Lucia Seel
Lucia Seel International Consulting
Linz, February 5th, 2018

The assessment process and results were approved by:



Helmut Kergel
Director
European Secretariat for Cluster Analysis
Berlin, February 20th, 2018



Thomas Lämmer-Gamp
Director
European Secretariat for Cluster Analysis
Berlin, February 20th, 2018

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