

National Energy Cluster NEK

The leader of innovations in Slovak Republic

3 x E: ENERGY ECOLOGY ECONOMY

The association of legal entities with nationwide operations and international networking brings together major companies and institutions from the fields of industry, energy and ecology, construction and applied research of innovations and related education.

PROFILE OF ACTIVITIES AND CHARACTERISTICS OF THE CLUSTER

The NEK cluster has been operating in Slovakia in the field of innovation development and support of industrial competitiveness in the area of energy, economy and ecology since the beginning of 2012. It is a typical industrial innovation cluster dealing with:

- *organization and cooperation of industrial production and distribution activities of cluster members and partners and providing service to the business community,*
- *development and support of projects in manufacturing, research and development, education, industrial investment and construction in energy, ecology, and industry as well as construction, materials engineering and project activities*
- *organizing congresses, workshops, conferences, festivals, excursions and competitions, international cooperation within the V4 countries and related publishing and promotional activities, building cluster technology maps and networks*
- *providing design, certification, environmental and related economic services, auditing and consulting in the field of applied research and development of innovation capacity especially in the SME segment.*
- *Certification and evaluation activities for organizations and businesses.*

The NEK Cluster is a long-term organizer of a top international event - the **ENERGOFUTURA** conference (the 10th jubilee year in 2019) included in EU cooperation projects and belonging to the portfolio of the five most important, energy-related events for the professional public in Europe. The importance of this event is also underlined by the fact that it is regularly sponsored by the Minister of Economy of the Slovak Republic and prominent domestic and European politicians attend this event.

In 2020, the cluster started a pilot educational project associated with the organization of the first conference with the international participation of **ECO & ENERGY Innovation**. The main goal is to support the development of the knowledge and innovations in Slovakia.

The key activities, programs and internal projects of the cluster are focused on reducing energy intensity in industry, removing ecological and environmental burdens, support of renewable energy sources, long-term and professionally specialized training of investors, entrepreneurs, designers in industry, researchers of technical universities and employees in state administration all over Slovakia. The current projects, started and developed since 2013, are continuously supplemented as follows:

○ Innovative modules, diagnostic methods and design for industrial investment management.

○ *Research on the methodology and application of renewable resources with regard to the specifics of SMEs.*

○ *Creation of application mixes for the removal of bioinvasive loads from water sources, revitalization of the environment and reclamation of landfills and waste management resources.*

OVERVIEW OF SUCCESSFUL PROJECTS

Year 2014: educational project with a nationwide impact entitled: "Education of the business community for the creation of innovative ecological, energy investments in industry" for 150 participants

Year 2015: educational project "Special educational program for energy and eco-innovation in project creation" for 90 participants

Year 2016: specialized project: "Leadership project Energofutura" for more than two hundred participants and partners of the cluster organization in Slovakia and abroad.

Year 2018: educational and research project: "Creation of a knowledge portfolio and map of energy and environmental clustering" with a very positive response from the participants.

Year 2019/2020: research and educational project: "Designing innovative tools for energy and environmental cluster habitats" with the international participation of 120 participants in the field of innovation.

Year 2019: specialized education "Eco & Energy Innovation" for participants of the Slovak Chamber of Civil Engineers.

Rok 2019: špecializované vzdelávanie "Eco & Energy Innovation", pre účastníkov z radov Slovenskej komory stavebných inžinierov SKSI s certifikáciou absolventov.

As part of the internal Development Program of Slovak Energy and Ecology, the cluster created three main professional sections for long-term specialization and activities of its members and partners:

SECTION A: Innovation and competitiveness of energy projects and investments

SECTION B: Development of regional and municipal energy and ecology

SECTION C: Operation and economic efficiency of modern energy sources

Each section is managed by a professional from the given area of specialization and administration is treated by a project manager defined by the cluster.

Projects and cooperation 3 x E: ENERGY ECOLOGY ECONOMY

As part of ongoing projects, the National Energy Cluster is successfully involved in **the SHREC Interreg** project under the responsibility of SIEA in the position of a stakeholder and also as a direct partner of the international project **Grantguidelines for Visegrad, Visegrad + and Strategic Grants**, for the years 2020 to 2022. Culster is also involved as a stakeholder in the **EU project: "Cluster FY"** and participates in all related innovation activities in cooperation with the Slovak Innovation and Energy Agency in the field of energy, ecology and industrial innovation with special regard to supporting regions and underdeveloped areas of Slovakia.

The cluster is the holder of the award of the Minister of Economy of the Slovak Republic for Innovative Act of 2012, the holder of the bronze certificate: **European Cluster Excellence Initiative Bronze Label Certificate**, issued by the EU in January 2013 and subsequently successfully re-defended in 2018 and Environment award of 2013 awarded by the Ministry of the Environment of the Slovak Republic within the competition National Business Award for the Environment of the Slovak Republic.

NEK has been a member of the European Cluster Collaboration Platform since 2020 within the European Cluster Alliance and participates in networking abroad and in Slovak Republic.

Important partners of the cluster:

Slovak Innovation and Energy Agency SIEA

Slovak Environmental Agency SAŽP

Slovak Chamber of Civil Engineers SKSI

Technical University in Košice TUKE

Union of Slovak Clusters UKS

Visegrad Found: Archenerg Cluster Hungary.

Since the beginning of 2020, NEK accepted the Statute for awarding awards to major organizations in Slovak Republic and abroad in the field of invations, industry, research and education with regard to energy, ecology and sustainable development, namely the CERTIFICATE INNOVATIVE EXCELLENCE.

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