

National R&D Institute for Industrial Ecology – ECOIND: “42 years of excellence in environmental research and services”

The institute was founded in 1977 under the name of ICPEAR (Institute of Research and Design for Wastewater Treatment) with headquarter located in Bucharest, one subsidiary in Timisoara and later in 1982 another subsidiary was established at Ramnicu Valcea, having as activity domain: technological development and design of installations for treatment of wastewater generated by chemical and petrochemical industries.

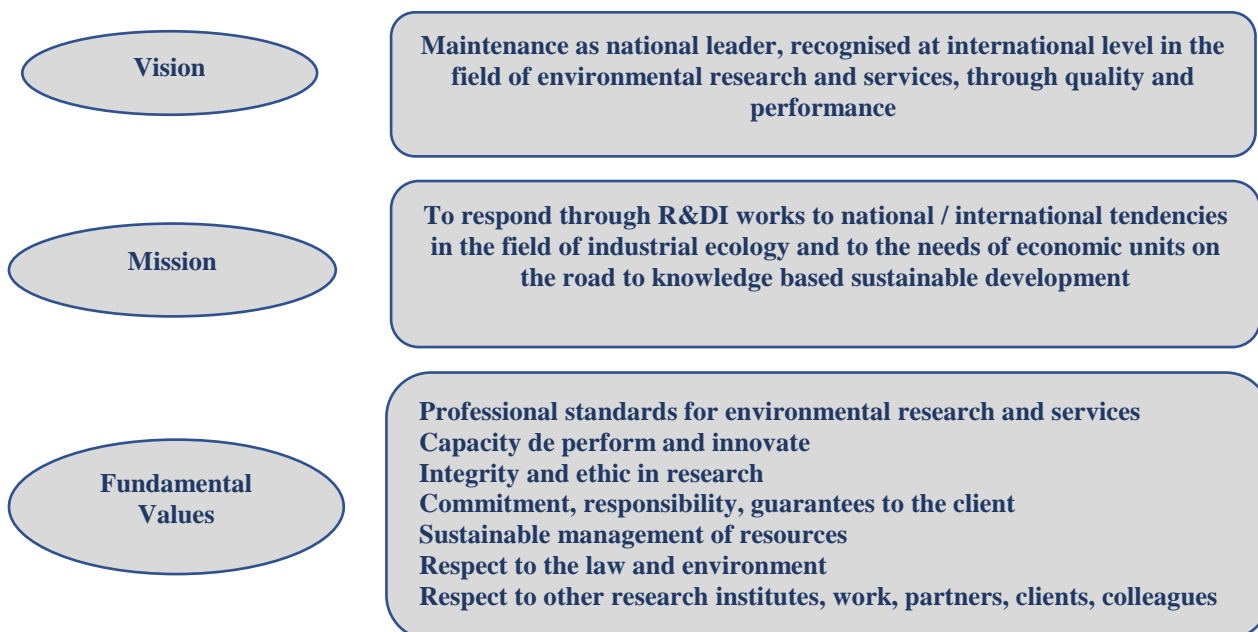
Due to its unicity, obtained results, multidisciplinary approaches and adequate response to the environmental issues of economic units, in 1999 ICPEAR was transformed through accreditation into National Research and Development Institute for Industrial Ecology – NR&DI ECOIND (GD no. 261/1999 and Regulation of Organization and Operation approved by GD no. 961/2005).

From its establishment (1977) until present days,

the institute continuously evolved from a research institute dedicated to development of technologies and design of installations for treatment of wastewater generated by chemical and petrochemical industries to a national research and development institute, with a global approach of environmental aspects in the field of industrial ecology, well known at national level and with a growing presence within international partnerships.

ECOIND was reaccredited as national institute in 2001, 2008 and 2012 by the Ministry of Education and Research and by National Agency for Scientific Research respectively.

Nowadays, ECOIND is operation under coordination of Ministry of Research and Innovation (GD 13/2017) and represents the only institute at national level with a global approach of environmental issues in the field of industrial ecology.



With a specific focus on research – development – innovation mainly on applied research in the field of environmental protection, industrial pollution assessment and control, institute’s activity is carried in accordance with a **Quality – Environmental Management Integrated System**, SR EN ISO 9001:2015 and SR EN ISO 14001:2015 (Certificate Q – 5364/17/26.05.2017 and E-5364/17/26.05.2017). An **Occupational Health and Safety**

Management System, is implemented within the institute, in accordance with SR ISO 45001: 2018.

Analytical tests laboratories within the Department for Pollution Control (Laboratory for Water, Soil, Waste Pollution Control, Laboratory for Air Pollution Control, Biotests Laboratory – Microbiological Analysis) and Laboratories for Environmental Analyses within Timisoara and Ramnicu Valcea subsidiaries are

accredited by RENAR in accordance with SR EN ISO/CEI 17025:2005 (Certificate of accreditation no. LI 941/19.11.2018). Laboratory for Air Pollution Control is complying with the requirements of SR CEN/TS 15675:2009 for measurement of pollutants emissions in air. ECOIND is diversifying testing and analyses domains in that way to totally respond to the needs of economic area in the field of integrated prevention and control of environmental media. The institute is certified / accredited for:

- development of environmental documentation (Certificate of registration position 79 in National Register of environmental studies elaborators issued by Ministry of Environment)
- development of technical documentation for obtaining water management authorizations (Certificate of Attestation no. 248/17.12.2018 issued by Ministry of Water and Forests);

- sampling and monitoring of drinking water quality (Certificate no. 533/22.04.2019 issued by Ministry of Health, General Direction for Medical Assistance and Public Health).

Development of ECOIND infrastructure was mainly done within **two projects co-financed by European Regional Development Fund via Sectoral Operational Programme** “Increase of Economic Competitiveness”:

- **SOP-IEC 115/2600 Development of ECOIND research infrastructure for the extension and diversification of researches in the field of industrial ecology – INFRAECO (Contract No.: 08 / 01-03-2009), <http://erris.gov.ro/Research-Center---INFRAECO>**

The present institute headquarter together with all needed infrastructure was developed within the project in order to assure conditions for research works at European level. Moreover, the institute endowment was completed with modern equipment, fact that facilitated the diversification of environmental research and services domains in the same time with the modernization of existing laboratories and development of new ones.

- **SOP-IEC 1881/48693 Environment and industry advanced interdisciplinary research centre – MEDIND (Contract No.: 657/07-08-2014), <http://erris.gov.ro/Research-Center-MEDIND>**

Project objective was to modernise and extend ECOIND infrastructure through creation of a new Advanced Interdisciplinary Research Centre in the aim to develop new research directions, that covers activities related to industrial ecology in the fields of: molecular biology, genetics, electronic microscopy, biological analyses and eco-toxicological studies, assessment of air quality within buildings and smell level via dynamic olfactometry, complete characterisation of industrial waste and sludge. These domains are less studied at national level but in accordance with environmental research tendencies at European and international level.

Beside the extension of existing infrastructure, 5 new advanced research laboratories were created in order to respond to research tendencies at European and international level in the domain of environmental pollution assessment and control. Capitalization of research results and existing infrastructure is realised through an ongoing project co-financed through European Regional Development Fund through Operational Programme Competitiveness, Priority Axis 1 – Research, technological development and innovation to support economic competitiveness and business development, Action 1.2.3. – Partnerships for knowledge transfer:

- **POC-A1-A.1.2.3-G-2015 - “Promotion, identification and development of partnerships for knowledge transfer in the field of industrial ecology – Partner ECOIND”-ID/SMIS 2014+:P_40_300/105581 (Contract No.:55/05.09.2016), www.partenerecoind.incdecoind.ro**

The project has as objective the improvement of knowledge, technological and R&D personnel transfer in the field of industrial ecology between ECOIND and enterprises from economic sector, through promotion, identification and foundation of partnerships in the aim to achieve joint research-development-innovation objective and increase value added at the level of environmental products/processes/services and technologies.

It is an ongoing project and the main envisaged results are: 45 contracts with economic environment, 20 scientific publications, 3 patent requests.

ECOIND carried various research projects within both national programs such as National Research Development Innovation Programme II and III (PED, PCE, PTE, PCCF), NUCLEU, ADER 2020 and international programmes such as H2020-WATER-2015, HUNGARY/BULGARIA – ROMANIA Cross-Border Cooperation Programme 2007-2013, CORINT EUREKA EUROSTARS, CORINT EUREKA, FP7, Norwegian Cooperation, LIFE+, PHARE, Sectoral Operational Programme Development of Human Resources. Those projects led to elaboration of new and/or optimised

technologies for wastewater treatment, technologies for treatment of underground water sources intended for human consumption, development of new methods and techniques for pollution assessment and control, modelling of phenomenon and processes, as well as new methodologies assessment of environmental pollution and risks.

Recognition of ECOIND results led to numerous medals and diplomas obtained within international invention events and to appreciation from the scientific community in the environmental research field.

We consider that the new scientific journal „**ROMANIAN JOURNAL OF ECOLOGY & ENVIRONMENTAL CHEMISTRY**”, next to International Symposium “The Environment and The Industry” now at the 22 edition and institutional repository “Library of National Research and Development Institute for Industrial Ecology ECOLIB” developed since 2017, will contribute to promotion of the obtained results both at national and international level, in the field of industrial ecology and environmental chemistry.

No matter how many barriers we'll have to overcome our motto will remain the same:
“EXCELLENCE IN ENVIRONMENTAL RESEARCH AND SERVICES”

ECOIND Team