

**CENTRALISED TABLE OF PROJECTS AND RESULTS OF RESEARCH ACTIVITIES**  
**Year 2022**

<b>Crt. no</b>	<b>Project</b>	<b>Contract RD No</b>	<b>Product resulting from the RD activity (Technology / Method / Methodology)</b>
1.	Promote, identify and develop partnerships for knowledge transfer in the field of industrial ecology.	POC - D 55/05.09.2016; 07563/2020	Prototype of an integrated groundwater quality control system based on electrochemical sensors
2.	Promoting, identifying and establishing partnerships for knowledge transfer in the field of industrial ecology.	POC-D 55/05.09.2016; 13740/2020	Composting technology of biodegradable fraction from municipal waste
3.	Project 1: Research into reaction systems for mine water treatment. Phase 2/2017 Project 2: Promotion, identification and implementation of industrial ecology knowledge transfer partnerships	PN16250304, F2/2017; Ctr.nr.55/2016; 6538/2018	Ammonium recovery process from leachate and sludge Patent No. 134500/28.01.2022 BOPI 1/31.01.2022
4.	Plant for the removal of organic pollutants from wastewater based on photocatalysis and biological processes - BIOCAT	PN-III-P2-ID- PTE2019- 0628 (ctr nr. 39/2019)	Aerobic biological treatment presentation manual
5.	Selection and dissemination of antibiotic resistance genes from wastewater treatment plants in the aquatic environment and clinical sector, acronym RADAR	PN-III-P4-ID- PCCF2016- 0114 (ctr nr. 10/2018)	Epidemiological study
6.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation - BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	LC-MS method for the identification of metabolites obtained from biodegradation processes occurring between various bacterial chains and certain perfluorinated organic compounds
7.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation - BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Methods for extraction and detection of anti-acid compounds and metabolites from residual sludge and sediment
8.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation - BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	GC-MS methods for the simultaneous determination of diphenylether, pyrimidine and carbamate herbicides in plant matrices
9.	Research on geochemical assessment of the natural background and establishment of reference thresholds for soil and water environmental components in the European context of implementation of strategic measures for soil and groundwater protection, acronym: GEFOSA	Financing contract no. 20N/2019 PN 19 04 02 03	Functional experimental model dedicated to the study of natural protected areas for highlighting the quality of soil and water environmental factors
10.	Research on new methods, techniques and procedures for waste assessment and management, acronym: DESEVAL	Financing contract no. 20N/2019 PN 19 04 04 01	Technical study to validate the hazardous/non-hazardous properties of wastes that can complete the list of wastes.
11.	Research on new methods, techniques and procedures for waste assessment and management, acronym: DESEVAL	Financing contract no. 20N/2019 PN 19 04 04 01	Experimental study to optimise suitable processes for the recovery of valuable components from liquid waste
12.	Research on new methods, techniques and procedures for waste assessment	Financing contract no. 20N/2019	Study to verify the reproducibility of alternative fuel

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	and management, acronym: DESEVAL	PN 19 04 04 01	formulations
13.	Research on new methods, techniques and procedures for waste assessment and management, acronym: DESEVAL	Financing contract no. 20N/2019 PN 19 04 04 01	Optimum technological options for obtaining new construction materials through the recovery of red mud waste from the manufacture of alumina and mining tailings waste
14.	Advanced methods and techniques for water quality assessment - ECOSENZ	Financing contract no. 20N/2019 PN 19 04 01 02	Experimental model for using diatoms as bioindicators to assess the ecological status of surface waters
15.	Biological models and molecular biomarkers for assessing the toxic potential of water resources affected by anthropogenic pollution - SMARTWAY	Financing contract no. 20N/2019 PN 19 04 02 01	Methodology for monitoring, predicting and classifying the toxicity of waste water samples from hospital units and municipal waste water in comparison with receiving surface waters.
16.	Alignment of air quality assessment methods/methodologies with the requirements of the regulations regarding the reduction of emissions and the improvement of the quality of life in the current context of climate change	Financing contract no. 20N/2019 PN 19 04 02 02	Case study regarding the application of indirect monitoring methods to economic agents in the field of intensive animal breeding
17.	Alignment of air quality assessment methods/methodologies with the requirements of the regulations regarding the reduction of emissions and the improvement of the quality of life in the current context of climate change	Financing contract no. 20N/2019 PN 19 04 02 02	Study on the methods of identification and quantification of toxic compounds absorbed on the surface of submicron respirable dusts
18.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN19040301	Functional technology for underground water treatment through combined enzyme-membrane processes
19.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Functional wastewater treatment technology through conventional hybrid processes - membrane
20.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Functional technology for removing halogenated compounds from groundwater through sonolysis associated with the use of activated sludge and oxidizing enzymes
21.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Functional technology for removing emerging pollutants from wastewater
22.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Functional technology for the purification of process wastewater resulting from the leaching of precious metals
23.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Functional technology for reducing the content of pollutants in waste water using new adsorbent materials
24.	Materials, methods and advanced technologies with applications in water treatment/purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Experimental study on the purification efficiency in different loading conditions of the influent water
25.	PN-III-CERC-CO-PED-2-2019-0730, Electrochemical system for the detection of mercury ions, acronym ELSYMED	Financing contract no. 293PED/2020	The study of demonstrating the functionality of the electrochemical system through the electroanalysis of mercury ions from environmental samples
26.	New eco-nano-technologies for the elimination of halogenated organic compounds from wastewater using advanced oxidation and reduction processes and anaerobic biodegradation processes - acronym:	PN-III-P2-2.1-PED	Preliminary study on the degradability of organochlorine compounds

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	NEWNANOAOPS		
27.	Epidemiological early warning system for SARS-CoV-2 trends in untreated wastewater as an indicator of the spread of circulating variants in the population, acronym: WARNING	PN III-P2-2.1-PED-2021-4131	Working protocol for the detection of SARS-Co-V-2 and circulating variants in untreated wastewater
28.	Microplastics - Ecotoxicological effects and mechanisms of action in Cyprinus carpio fish - MicroPlasFish Step 1 - Screening for identification and characterization of microplastics	PN-III-P1-1.1-TE-2021-0073 UEFISCDI	Screening methods for the identification and characterization of microplastics
29.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Experimental model for predicting bioaccumulation of toxic metals in aromatic plants
30.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Experimental model for predicting bioaccumulation of toxic metals in medicinal plants
31.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Bioaccumulation study of some endocrine disruptors such as perfluorinated organic compounds in fish organs
32.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Study on the distribution of some pharmaceutical compounds with anti-acid effect and their metabolites between dissolved and solid phase
33.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	The database regarding the concentration level of organic pollutants such as synthetic herbicides in the organs of some plants
34.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Database regarding the degree of contamination with organic pollutants (polycyclic aromatic hydrocarbons and polychlorinated biphenyls) adsorbed on microplastics taken from the Danube river in the area of Drobeta Turnu-Severin city
35.	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation, acronym BIOACUM	Financing contract no. 20N/2019 PN 19 04 01 01	Database regarding the degree of contamination with organic pollutants (polycyclic aromatic hydrocarbons and polychlorinated biphenyls) adsorbed on microplastics taken from the Danube river in the area of Braila city
36.	Biological models and molecular biomarkers for assessing the toxic potential of water resources affected by anthropogenic pollution, project code, acronym: SMARTWAY	Financing contract no. 20N/2019 PN 19 04 02 01	Experimental study to identify an aquatic system affected by specific antibiotic and biocide pollution
37.	Biological models and molecular biomarkers for assessing the toxic potential of water resources affected by anthropogenic pollution, project code, acronym: SMARTWAY	Financing contract no. 20N/2019 PN 19 04 02 01	Validated experimental model based on aquatic toxicity risk assessment methodology on aquatic component
38.	Research on new methods, techniques and procedures for waste assessment	Financing contract no. 20N/2019	Information guide for national authorities regarding the

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	and management, acronym: DESEVAL	PN 19 04 04 01	opportunity to complete the European list with new waste codes
39.	Research on new methods, techniques and procedures for waste assessment and management, acronym: DESEVAL	Financing contract no. 20N/2019 PN 19 04 04 01	Optimized technological study for the recovery of useful components from solid/semi-solid waste such as galvanic sludge
40.	Research on new methods, techniques and procedures for waste assessment and management, acronym: DESEVAL	Financing contract no. 20N/2019 PN 19 04 04 01	Validated and demonstrated technological study of obtaining combustible materials from waste with lignocellulosic and polymeric composition
41.	Research on new methods, techniques and procedures for waste assessment and management, acronym: DESEVAL	Financing contract no. 20N/2019 PN 19 04 04 01	Environmental impact assessment study for technological solutions to incorporate red mud waste in building materials
42.	Research on geochemical assessment of the natural background and establishment of reference thresholds for soil and water environmental components in the European context of implementation of strategic measures for soil and groundwater protection, acronym: GEFOSA	Financing contract no. 20N/2019 PN 19 04 02 03	The method of highlighting environmental aspects in protected natural areas for establishing geochemical threshold values through geostatistical study (representative values/geochemical thresholds for soil and water for protected areas: Padurea Ciornuleasa, Piatra Craiului National Park and Cheile Nerei Beusnita National Park)
43.	Research on geochemical assessment of the natural background and establishment of reference thresholds for soil and water environmental components in the European context of implementation of strategic measures for soil and groundwater protection, acronym: GEFOSA	Financing contract no. 20N/2019 PN 19 04 02 03	The method of highlighting environmental aspects in protected natural areas for establishing geochemical threshold values through geostatistical study (representative values/geochemical thresholds for soil and water for protected areas: Preajba Facai Lake Complex and Vanturarita Buila National Park)
44.	Advanced materials, methods and technologies with applications in water treatment / purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Validated wastewater treatment technology through conventional hybrid processes - membrane
45.	Advanced materials, methods and technologies with applications in water treatment / purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Validated technology for removing halogenated compounds from groundwater through sonolysis associated with the use of activated sludge and oxidizing enzymes
46.	Materiale, metode si tehnologii avansate cu aplicatii in tratarea/epurarea apelor – ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Validated technology for removing emerging pollutants from wastewater
47.	Advanced materials, methods and technologies with applications in water treatment / purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Validated technology for the purification of process wastewater resulting from the leaching of precious metals
48.	Advanced materials, methods and technologies with applications in water treatment / purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Validated technology for reducing pollutant content in wastewater using new adsorbent materials
49.	Advanced materials, methods and technologies with applications in water treatment / purification - ADVANTECH	Financing contract no. 20N/2019 PN 19 04 03 01	Experimental model developed dedicated to the biological step of wastewater treatment plants
50.	Alignment of air quality assessment methods/methodologies with the requirements of the regulations regarding the reduction of emissions and the improvement of the quality of life in the current context of climate change -	Financing contract no. 20N/2019 PN 19 04 02 02	Case study regarding the assessment of air pollution in the vicinity of industrial areas with submicron respirable dusts and toxic compounds adsorbed on dusts with the statistical

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	QALAIR		interpretation of monitoring data
51.	Alignment of air quality assessment methods/methodologies with the requirements of the regulations regarding the reduction of emissions and the improvement of the quality of life in the current context of climate change - QALAIR	Financing contract no. 20N/2019 PN 19 04 02 02	Correlations and regressions in the assessment of air pollution; establishing the potential relationships between the size of the powders/chemical composition and the specifics of the activities carried out (characterization, correlations, regressions) - STUDY
52.	Advanced methods and techniques for water quality assessment - ECOSENZ	Financing contract no. 20N/2019 PN 19 04 01 02	Validated voltammetric detection procedure for the emerging pollutant - Diclofenac (DCF)
53.	Advanced methods and techniques for water quality assessment - ECOSENZ	Financing contract no. 20N/2019 PN 19 04 01 02	Validated voltammetric detection procedure for the emerging pollutant – Tetracycline (TC)