

**CENTRALIZING TABLE OF PROJECTS AND RESULTS OF RESEARCH ACTIVITIES**  
**The year 2019**

Crt. No.	Project	No. CD contract	Product resulting from the CD activity (Technology/Method/Methodology)
1	Advanced integrated recycling of inseparable combined waste of plastics and paper, unrecyclable by current technologies	POC type D no. 15351/2017	Prototypes of extruded components such as plates and profiles made from raw materials obtained from the recycling of combined plastic and paper waste
2	Obtaining photocatalysts by vacuum deposition for applications in the field of wastewater treatment	POC type D no. 6537/2018	Photocatalysts based on undoped TiO <sub>2</sub> and doped with silver (Ag) or nitrogen (N)
3	Advanced methods and techniques for water quality assessment - ECOSENZ	PN 19 04 01 02	Series of carbon-based modified electrodes showing the highest electrochemical signals in the detection of emerging pollutants
4	Advanced research on intercellular and metabolic microalgae-bacteria relationships in the innovative granular system for wastewater treatment	PNCIDI III-P4 –PCE No. 84/.2017	Alternative technology/method of wastewater treatment based on the mixed microalgae - bacteria granular system
5	Research on new processes for the improvement of treatment technologies and for the recuperative treatment of mine waters from the extractive industry of non-ferrous ores	POC type D no. 15350/2017	Validated recuperative treatment technology with the valorization of alumina sludge for sulfate precipitation from mine waters
6	Research on increasing the efficiency of anaerobic fermentation in urban sewage treatment plants by implementing sludge disintegration technologies	POC type D no. 6538/2018	Advanced stabilization technology, enrichment in nutrients and pasteurization of sewage sludge
7	Conceptual modeling and development of an integrated wastewater treatment system adapted to the production technologies of porous collagen substrates within SC Sanimed International Impex SRL	POC type D no. 5831/2018	Optimized experimental model / technology validated at the laboratory level for the purification of wastewater generated by the installation for the manufacture of porous collagen substrates
8	Innovative Ecological on-site Sanitation System for Water and Resources Savings	H2020 no. 689817/01.06. 2016 INNOQUA	Modular biological wastewater treatment system - pilot plant
9	Improvement of the pretreatment system in the food industry	POC type C no. 22242/2018	Technological study to evaluate the efficiency of physico-chemical/biological purification of certain categories of wastewater with specific load
10	Advanced materials, methods and technologies	20N/2019	Research study on the evolution of the configuration, operating

	with applications in water treatment/purification	PN 19 04 03 01	parameters and characteristics of the activated sludge from the biological stage of the sewage treatment plant
11	Establishing the ecotoxicological characteristics of some products manufactured on the basis of surface active agents (surfactants), in order to evaluate their compliance with the requirements of the European Regulation on Detergents	POC type C no. 19088/2018	Ecotoxicological characterization studies of some products manufactured on the basis of surface active agents (surfactants)
12	Evaluation of the acute toxicity and biodegradation capacity of an antiscalant product in accordance with the requirements of European Regulation (EC) NO. 1907/2006 (REACH)	POC type C no. 3944/2019	Experimental studies to evaluate the biodegradation capacity and the toxic effect generated by the antiscalant product on aquatic organisms
13	Advanced materials, methods and technologies with applications in water treatment/purification	20N/2019 PN 19 04 03 01	Technological study regarding the utilization of corn stalk waste as adsorbent material for the retention of heavy metals from mine waters, including the determination of adsorption and kinetic models
14	Advanced materials, methods and technologies with applications in water treatment/purification	20N/2019 PN 19 04 03 01	Technological study regarding the stage of the use of enzymes in water treatment
15	Advanced materials, methods and technologies with applications in water treatment/purification	20N/2019 PN 19 04 03 01	Technological study regarding the current stage of the application of advanced oxidation processes in the degradation of organic pollutants
16	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	Database-type monitoring study on the degree of contamination of surface water and wastewater with endocrine disruptors such as UV filters
17	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	Database-type monitoring study on the degree of contamination of the environmental component of waste water with anti-diabetics and metabolites
18	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	Database type monitoring study regarding the contamination of environmental factors surface water, soil and vegetation with synthetic auxins
19	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	Study of the bioaccumulation of some toxic metals (As, Cd, Ni, Pb) in the underground and aerial parts of chamomile ( <i>Matricaria Chamomilla L.</i> )
20	Advanced research on the transfer of emerging contaminants from abiotic environmental factors	20N/2019 PN 19 04 01 01	Bioaccumulation study of the toxic metals As, Cd, Ni, Pb in the root and the stem and leaves of <i>Mentha piperita</i>

	to aquatic organisms and plants through bioaccumulation		
21	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	Case study regarding the degree of contamination with organic pollutants adsorbed on microplastic particles from different locations of the Jiu River
22	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	20N/2019 PN 19 04 02 02	Study on the new CBAT requirements for the fields of activity for which application decisions have been issued
23	Research on new methods, techniques and procedures for evaluating and managing waste - DESEVAL	20N/2019 PN 19 04 04 01	Experimental study for the characterization of some municipal waste as competitive raw materials for obtaining combustible materials
24	Research on new methods, techniques and procedures for evaluating and managing waste - DESEVAL	20N/2019 PN 19 04 04 01	Preliminary technological study for the valorization of red mud waste and mining tailings, in order to reduce the impact of their storage on the environment, applying a management option aimed at incorporating them into construction materials
25	Research on new methods, techniques and procedures for evaluating and managing waste - DESEVAL	20N/2019 PN 19 04 04 01	Studies on recovery technologies of useful components from waste documenting the integrated waste management scheme in Romania
26	The selection and dissemination of antibiotic resistance genes at the level of wastewater treatment plants in the aquatic environment and the clinical sector	PNCDI-III-P4-PCCF No. 10/2018	The standard operational procedure for the collection / microbiological analysis / of water samples, sludge
27	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	The method for determining some endocrine disruptors such as UV filters from waste water and surface water samples
28	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	The method for determining some pharmaceutical compounds from the anti-diabetic class and metabolites from wastewater and surface samples
29	Advanced research on the transfer of emerging contaminants from abiotic environmental factors to aquatic organisms and plants through bioaccumulation	20N/2019 PN 19 04 01 01	The method for determining some herbicides from the class of synthetic auxins from water, vegetation and soil samples
30	Biological models and molecular biomarkers for	20N/2019	Methodology for identification and cross-analysis at the

	evaluating the toxic potential of water resources affected by anthropogenic pollution	PN 19 04 01 01	transcriptional level of antibiotic and biocidal resistance mechanisms of pathogenic bacteria in the aquatic environment
31	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	20N/2019 PN 19 04 02 02	The biomonitoring method tested "in-situ"
32	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	20N/2019 PN 19 04 02 02	Approach methodology for the evaluation of odor pollution in the vicinity of waste deposits
33	Advanced methods and techniques for water quality assessment - ECOSENZ	20N/2019 PN 19 04 01 02	The method of purifying waste water with phosphorus through phytoremediation using the aquatic plant Lemna minor - study to evaluate the impact of potential sources of pollution on the quality of the Bega and Timis rivers
34	Research on new methods, techniques and procedures for evaluating and managing waste - DESEVAL	20N/2019 PN 19 04 04 01	Conceptual and experimental model for evaluation of waste not included in the European waste list
35	Research on the geochemical assessment of the natural background and the establishment of reference thresholds for the soil and water environmental components, in the European context of the implementing strategic measures for the protection of soils and groundwater	20N/2019 PN 19 04 02 03	Conceptual model dedicated to the geochemical study of protected natural areas