

**Summary table of projects and results of research activities
Year 2024**

Crt. no.	Project	RD Contract No.	Product resulting from the RD activity (Technology / Method / Methodology)	Technological maturity level
1.	Specialized and sustainable technologies, based on advanced oxidation processes, intended for the purification of wastewater / sludge and the valorization of renewable resources in the processes of wastewater treatment - WATERTREAT - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 01	Solar PMR experimental model for wastewater treatment tested (Research Report)	TRL 3
2.	Specialized and sustainable technologies, based on advanced oxidation processes, intended for the purification of wastewater / sludge and the valorization of renewable resources in the processes of wastewater treatment - WATERTREAT - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 01	Experimental model for sludge treatment with percarbonate and tested ozone (Research Report)	TRL 3
3.	Specialized and sustainable technologies, based on advanced oxidation processes, intended for the purification of wastewater / sludge and the valorization of renewable resources in the processes of wastewater treatment - WATERTREAT - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 01	Experimental SBR model for the treatment of leachate generated from municipal waste deposits tested (Research Report)	TRL 3
4.	Specialized and sustainable technologies, based on advanced oxidation processes, intended for the purification of wastewater / sludge and the valorization of renewable resources in the processes of wastewater treatment - WATERTREAT - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 01	Studiu experimental privind integrarea microalgelor in procese de epurare a apelor uzate (Raport de cercetare)	TRL 3
5.	Specialized and sustainable technologies, based on advanced oxidation processes, intended for the purification of wastewater / sludge and the valorization of renewable resources in the processes of wastewater treatment - WATERTREAT - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 01	Experimental study on the integration of microalgae in wastewater treatment processes (Research Report)	TRL 3
6.	Methods/methodologies for the structural identification, chemical confirmation and analytical quantification of emerging anthropogenic contaminants in various environmental components in accordance with the new European environmental directives - ECOTRANS - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 01 01	Developed and validated electrochemical methods for the quantification of persistent emerging pollutants such as perfluoroalkyl sulfonic acids in aqueous matrices by voltammetric and amperometric detection	TRL 4
7.	Methods/methodologies for the structural identification, chemical confirmation and analytical quantification of emerging anthropogenic contaminants in various environmental components in accordance with the new European environmental directives - ECOTRANS - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 01 01	Quantitative method for the detection and quantification of Cr species in various water matrices (drinking, surface water and underground water) using the HPLC-ICP-MS technique	TRL 4
8.	Methods/methodologies for the structural identification, chemical confirmation and analytical quantification of emerging anthropogenic contaminants in various environmental components in accordance with the new European environmental directives - ECOTRANS - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 01 01	Quantitative method for the quantification of iodo-trihalomethane compounds in potable water	TRL 4

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9.	Advanced waste recycling through experimental models dedicated to the circular economy - SMARTWASTE - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 04 01	Experimental study on the removal of specific compounds found in the composition of waste from the leather industry	TRL 2
10.	Advanced waste recycling through experimental models dedicated to the circular economy - SMARTWASTE - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 04 01	Experimental study regarding the development and testing of adsorbent materials and/or catalysts obtained from ash	TRL 2
11.	Advanced waste recycling through experimental models dedicated to the circular economy - SMARTWASTE - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 04 01	Experimental study for the development of recipes for obtaining alternative fuels, by using mixtures of different proportions of waste	TRL 3
12.	Environmental biotechnologies for supporting the green transition and adapting to the principles of the circular economy – EMBRACE – Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 02	Technology and experimental model installation of waste water treatment from decentralized and/or seasonal sources validated	TRL 4
13.	Innovative technologies for advanced removal of inorganic and organic micropollutants such as arsenic and chlorine disinfection by-products (trihalomethanes and haloacetic acids) in the context of the implementation of the new European legislation on drinking water quality – AQUASTECH-Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 03	Experimental study on the removal efficiencies of THMs and HAAs from water using zerovalent iron and zerovalent iron sonolysis	TRL 3
14.	Innovative technologies for advanced removal of inorganic and organic micropollutants such as arsenic and chlorine disinfection by-products (trihalomethanes and haloacetic acids) in the context of the implementation of the new European legislation on drinking water quality – AQUASTECH-Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 03 03	Experimental treatability study carried out at the laboratory level in order to analyze the aspects related to the advanced removal of arsenic from deep water sources intended for human consumption selected from the aquifer of the Western Zone of Romania	TRL 3
15.	Eco-friendly solutions for monitoring and protecting the biodiversity of integrative systems, as well as for preventing their destruction - ECO-PHARMA - Phase 3/2024	Contract de finantare nr. 3N/2022 PN 23 22 02 01	Studiu experimental de evaluare a efectelor antimicrobiene a extractelor vegetale de rozmarin si coaja de portocala, comparativ cu compusii farmaceutici existenti	TRL 3
16.	Assessment of the impact of climate change in urban and peri-urban areas in Romania - priority measures regarding climate resilience - RCUP - Phase 3/2024	Financing contract no. 3N/2022 PN 23 22 02 02	Study regarding the conduct of field and laboratory investigations to establish the quality of environmental factors in urban and peri-urban areas analyzed in 2024 within the experimental field related to the project Evaluation of the impact of climate change in urban and peri-urban areas in Romania-priority measures regarding climate resilience, the updated RCUP georeferenced database	TRL 4
17.	New eco-nano-technologies for the elimination of halogenated organic compounds from wastewater using advanced oxidation and reduction processes and anaerobic biodegradation processes" (Acronym: NEWNANOAOPS)	PN-III-P2-2.1-PED	Advanced degradation technology of hexachlorocyclohexane isomers from aqueous systems	TRL 4