

<b>Program</b>	<b>Program NUCLEU PN 09 13 01 06</b>
<b>Project title (ENG):</b>	<b>The safety assessment of drinking water distribution systems by tracking metal concentrations compliance with the requirements of 98/83 / EC Directive</b>
<b>Project title (RO):</b>	<b>Evaluarea siguranței sistemelor de alimentare cu apă potabilă prin urmărirea conformității concentrațiilor de metale cu cerințele Directivei 98/83/EC</b>
<b>Duration</b>	2009-2013
<b>Team Leader</b>	Senior Researcher Eng. Gabriela Vasile
<b>Summary</b> (short description) ENG	<ul style="list-style-type: none"> <li>- Procedura de prelevarea a apei potabile la robinet, procedura armonizata cu legislatia europeana;</li> <li>- Baza de date privind poluarea cu metale a apei destinate consumului uman in Municipiile Bucuresti, Timisoara, Tg. Mures, Ploiesti, Brasov (surse de apa bruta, apa produsa, apa din sistemul de distributie, din statii de pompare si de la robinetul consumatorilor) ;</li> <li>- Studii pe probe de ape recoltate prin tehnici diferite (first draw, fully flush, random daytime), probe recoltate sezonala : iarna – vara; corelatii cu materialele utilizate in sistemul de distributie casnic si municipal ;</li> <li>- Baza de date privind poluarea cu metale a apei destinate consumului uman in 7 localitati din sectorul agricol Ilfov : orasele Bragadiru si Pantelimon, comunele Cornetu si Ciorogarla, localitatile Balotesti, Branesti si Ciolpani (apa de foraj, apa rezervoare de stocare, apa potabila de la robinet consumatorilor) ;</li> <li>- Solutii tehnice de remediere a calitatii apei potabile in micile comunitati (Balotesti, Bragadiru, Ciorogarla, Ciolpani, Cornetu si Pantelimon) din judetul Ilfov – fluxuri de tratare ape subterane poluate cu Fe, Mn, As.</li> </ul>
<b>Summary</b> (short description) RO	<ul style="list-style-type: none"> <li>-Tap water sampling Procedure, harmonized to the European Legislation Requirements;</li> <li>- Database regarding tap water pollution with metals in Bucharest, Timisoara, Tg. Mures, Ploiesti, Brasov Municipalities (samples of: raw water sources, drinking water produced, drinking water from municipal distribution system, pumping stations, consumer’s tap);</li> <li>- Studies on tap water samples collected with different sampling techniques (first draw, fully flush, random daytime); samples collected seasonally: winter - summer; correlations with materials used in household and municipal distribution system;</li> <li>- Database regarding tap water pollution with metals in 7 localities from Ilfov: Bragadiru, Pantelimon, Cornetu, Ciorogarla, Balotesti, Branesti and Ciolpani (groundwater, drinking water from storage tanks, tap water samples);</li> <li>- Technical solutions for remediation of drinking water quality in small communities from Ilfov County (Balotesti, Bragadiru, Ciorogarla, Ciolpani, Cornetu and Pantelimon) – treatment flows for groundwater polluted sources with Fe, Mn and As.</li> </ul>
<b>Dissemination of results</b>	
Full-paper ISI	Vasile, G., Dinu, C., Ene, C., Cruceru, L., Damian, N., Stancu, A., Influence of metallic pipes from domestic distribution system to the tap water quality, <i>Revista de Chimie (Bucuresti)</i> , <b>2015</b> , 66 (1), 92-96
	Vasile, G., Dinu, C., Cruceru, L., Petre, J., Distribution water materials and tap water quality, <i>Environmental Engineering and Management Journal</i> , <b>2010</b> , 9 (11), 1465-1471
	Vasile, G.G., Catranguiu, A., Cruceru, L.V., <i>A field study on overnight stagnation of drinking water in domestic distribution system</i> , 14 <sup>th</sup>

Full-paper ISI	GeoConference on Water Resources, Forest, Marine and Ocean Ecosystems, Conference Proceedings, vol I, Hidrology & Water Resources (SGEM), 11-18 pp., ISBN 978-619-7105-13-1, 17-26 June, 2014, Albena, Bulgaria, DOI: 10.5593/SGEM2014/B31/S12.002, WOS:000371595200002
	Vasile, G., Cruceru, L., Petre, J., Anghelus, A., Gheorghe, D., Landi, D., Stefanescu, A., <i>Tap water quality regarding metal concentrations in Timisoara city, Romania</i> , 4 <sup>th</sup> International Conference on Metals and Related Substances in Drinking Water (METEAU), Kristianstad, SWEDEN, OCT 13-15, 2010, Proceedings Book: Metals and related substances in Drinking Water, ISBN: 9781780400358, IWA Publishing, 67-75 pp., <b>2012</b> , WOS:000314479600009
Full-paper BDI	Vasile, G., Catrangiu, A., Dinu, C., Damian, N., Matau, G., Quality control of drinking water in Brasov Municipality using first draw and full flush sampling procedures, <i>International Symposium The Environment and The Industry</i> , Volum II, 95-101 pp., ISSN-L: 1843-5831, <b>2013</b> , Bucharest;
	Dinu, C., Niculae, A., Iancu, V., Vasile, G., Niculescu, M., Tehnici analitice performante pentru caracterizarea calitatii apei, <i>Romaqua</i> , An XVIII, <b>2012</b> , 6, 42-46 (partea I), An XIX, <b>2013</b> , 1, 31-35 (partea a-II-a);
	Cristina Dinu, Gabriela Vasile, Luisa Roxana Popescu, Determination of volatile metallic elements in water using flow injection hydride generation coupled with FIAS-ICP-OES, <i>International Symposium The Environment and The Industry</i> , Volum II, 147-154 pp., ISSN-L: 1843-5831, <b>2011</b> , Bucharest;
	Dinu, C., Vasile, G., Cruceru, L., Petre, J., Flow injection analysis system coupled with ICP-EOS for determination of some metallic elements in drinking water, <i>Chemistry Journal of Moldova. General, Industrial and Ecological Chemistry</i> , 2009, 4(1), 66-71.
Book	Adam Postawa, Maria Joao Benoliel, Matthew Bower, Brian Croll, Colin Hayes, Eddo Hoekstra, Ewa Kmiecik, Andre Miranda, Joao Miguel Paiva, Agnes Sebastyen, Marcel Tielemans, Gabriela Vasile <b>Best Practice Guide on Sampling and Monitoring of Metals in Drinking Water</b> , ISBN: 978-18-433-9383-2, <b>2012</b> , IWA Publishing
Book chapter	Vasile, G., Cruceru, L., Dinu, C., Chiru, E., Gheorghe, D., Ciupe, A., Chapter 20: <i>Evaluation of drinking water quality in three municipalities of Romania: the influence of municipal and customer's distribution systems concerning trace metals</i> , <u>Water Quality Monitoring and Assessment</u> , ISBN: 978-953-51-0486-5, <b>2012</b> , InTech Croatia, 457- 480 pp
Conferences (platform, poster, abstract / full-paper	Vasile, G., Dinu, C., Cruceru, L., Evaluation of tap water quality in large communities from Romania regarding metal concentrations, 4 <sup>th</sup> <i>The Central and Eastern European Conference on Health and the Environment (CEECHÉ)</i> . <i>The Environment – A Platform for Health</i> , 25-30 mai <b>2014</b> , Cluj-Napoca, România
	Gabriela Vasile, Cristina Dinu, Nicoleta Damian, Jana Petre, Monitoring of tap water quality in Brasov municipality using random daytime sampling procedures, <i>Metals in water – Health Protection and sustainability through technical innovation</i> , 6-9 November <b>2013</b> , Shanghai, China.

Conferences (platform, poster, abstract / full-paper)	Cristiana Cosma, Margareta Nicolau, Viorel Patroescu, Mihai Stefanescu, Alternative technical solutions for the treatment of drinking water supplies containing metallic ions. <i>Metals in water – Health Protection and sustainability through technical innovation</i> , 6-9 November <b>2013</b> , Shanghai, China.
	Cristiana Cosma, Margareta Nicolau, Mihaela Alexie, Viorel Patroescu, Ionut Cristea, Valeriu Badescu, Consideration of manganese removal from groundwater by chemical oxidation using chlorine based compounds, <i>International Symposium The Environment and The Industry</i> , 29-30 October, <b>2013</b> , Bucharest
	Gabriela Vasile, Andrei Niculae, Alina Catrangi, Quality control of drinking water on the customer's tap in a municipality from Romania, 1st International Conference <i>Environmental Research and Technology ECOIMPULSE</i> , 25-26 October <b>2012</b> , Timisoara
	Vasile, G., Dinu, C., Cruceru, L., Drinking water quality on customer's tap – correlation with materials used in domestic distribution systems and recommendations for quality improvement, <i>International Symposium "The Environment and The Industry"</i> , vol II, 246-254, 16-18 October <b>2011</b> , Bucharest
	Gabriela Vasile, Cristina Dinu, Liliana Cruceru, Jana Petre, Influence of domestic distribution system to the tap water quality, Workshop Water Quality, ICPECA, 9-11 September <b>2010</b> , Bucharest
	Vasile, G., Cruceru, L., Lucaciu, I., Quality Control of Drinking Water. Suppliers – Public network systems – customer's tap, <i>COST 637 Action, "Metals and related substances in drinking water"</i> , 27 May <b>2010</b> , INCD-ECOIND, Bucharest.
	Vasile G., Dinu C., Chiru E., Monitoring of metal concentrations in tap waters in Bucharest supply system, <i>3<sup>rd</sup> International Conference "Metals and related substances in drinking water"</i> , 21-23 October <b>2009</b> , Ioannina, Grecia.