

## EuChemS-DAC Study Group / Task Force Annual Report for 2020-2021

<b>Study Group / Task Force Name:</b> Quality Assurance
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<b>Study Group / Task Force Members and Affiliations:</b> Hendrik Emons (HE), Joint Research Centre (JRC), European Commission (EC), Belgium. Constantina P. Kapnissi-Christodoulou (CKC), Univ. of Cyprus, Cyprus. Ricardo Bettencourt da Silva (RBS), Univ. de Lisboa, Portugal
<b>Objectives:</b> Report on activities in metrology, quality assurance, accreditation and all areas related to quality issues of analytical chemistry. Liaison to other Divisions, working groups, working parties and governmental bodies. Accreditation of laboratories is common practice in industry and accreditation is introduced in order to sustain quality and reliability. Practices and procedures of quality assurance are considered also in science and the influence on quality of scientific results is evaluated and discussed. The aim of the Study Group 'Quality Assurance' is to follow the development of quality assurance and metrology in analytical chemistry and produce guidelines for assessing the quality of results, which ultimately can create a new basis for decision-making that may have an impact on the way research is carried out. Both statistics and metrology are currently considered for further developments and improvements as to meet contemporary demands for quality in analytical chemistry.
<b>Activities and Outputs in 2020-2021 (e.g. reports, publications, seminars, meetings):</b> We contribute to activities in Eurachem, a network of organisations in Europe having the objective of establishing a system for the international traceability of chemical measurements and the promotion of good quality practices is developing and disseminating (free of charge via <a href="http://www.eurachem.org">www.eurachem.org</a> ) information on quality assurance etc. In 2021 Eurachem published: "Selection, Use and Interpretation of Proficiency Testing (PT) Schemes" 3 <sup>rd</sup> edition and "Use of uncertainty information in compliance assessment" 2 <sup>nd</sup> edition. New Information Leaflets published (available in different languages) were "PT Schemes for sampling (2020)", "Use of uncertainty information in compliance assessment" (2021), "What is the uncertainty factor?" (2021), and "The importance of method validation" (2021). In 2020 RBS also contributed to the guide "Definindo e utilizando a incerteza alvo em medições químicas (Versão em Português)."  <b>Meetings (* Online):</b> *MSMM 2021 – Mathematical and Statistical Methods for Metrology, 31 May – 1 June 2021 (RBS) *Eurachem Workshop – Trends & Challenges in Ensuring Quality in Analytical Measurements, 17-19 May 2021 (RBS) *CQE Days 2021, 27-28 May 2021 (RBS) *Jornadas do Mar 2021, 21-23 Abril 2021 (RBS) *IDEIA 2021 – Innovation in Maritime Operations: Aligning with Academia and Industry, 26-27 Jan. 2021 (RBS) *ENQUALAB, Congresso de Qualidade em Metrologia, Laboratórios e Indústria, 30 Nov. – 2 Dec. 2020 (RBS) *6 <sup>o</sup> Jornadas de Engenharia Hidrográfica e 1 <sup>o</sup> Jornadas Luso-Espanholas de Hidrografia, 3-5 Nov. 2020 (RBS) Ciência 2020, 3-4 November 2020 (RBS) *Analítica 2020, 27-28 Oct. 2020 (RBS) *Relevâncias e desafios, 1 <sup>o</sup> Encontro Internacional de Metrologia e Examinologia em Química, 22-23 Outubro 2020 (RBS) <b>Publications:</b> Bettencourt da Silva, R.J.N., Saame, J., Anes, B., Heering, A., Leito, I., Näykki, T., Stoica, D., Deleebeeck, L., Bastkowski, F., Snedden, A., Filomena Camões, M. Analytica Chimica Acta (2021) (DOI 10.1016/j.aca.2021.338923). Morgado, V., Gomes, L., Bettencourt da Silva, R.J.N., Palma, C. Talanta (2021) (DOI 10.1016/j.talanta.2021.122624). Morgado, V., Palma, C., Bettencourt da Silva, R.J.N. Analytica Chimica Acta (2021) (DOI 10.1016/j.aca.2021.338732). Separovic, L., Bettencourt da Silva, R.J.N., Lourenço, F.R. Measurement (2021) (DOI 10.1016/j.measurement.2021.109531) Cardoso, A., Costa, R., Neves, S., Oliveira, C.M., Bettencourt da Silva, R.J.N. Microchemical Journal 165 (2021) 106129 (DOI 10.1016/j.microc.2021.106129). Pluháček, T., Milde, D., Součková, J., Bettencourtda Silva, R.J.N. Talanta (2020) (DOI 10.1016/j.talanta.2020.122044). Morgado, V., Palma, C., Bettencourt da Silva, R.J.N. Talanta 224 (2021) 121814 (DOI 10.1016/j.talanta.2020.121814). Borges, C., Carla Palma, C., Dadamos, T., Bettencourt da Silva, R.J.N. Chemosphere 263 (2021) 128036 (DOI 10.1016/j.chemosphere.2020.128036). Milde, D., Pluháček, T., Kuba, M., Součková, J., Bettencourtda Silva, R.J.N. Talanta 220 (2020) 121386 (DOI 10.1016/j.talanta.2020.121386)
Activities planned for 2021-2022: 1) Follow activities of Eurachem and contribute to meetings and publications, e.g. The Eurachem General Assembly and associated working group meetings; 2) Publish results of quality assurance in appropriate journals; 3) Publish two pages technical notes (EuChemS-DAC-QA) that present simple QA tools and concepts.
Report submitted by: <i>Elin Gjengedal</i>
Date submitted: <i>7. September 2021</i>