



Annex E – Short CVs of the Authors

Arne Bjørlykke

Professor in Economic Geology, Department of Geology at University of Oslo (1984 -94). Became Director General of the Norwegian Geological Survey (1994-2006). President of the Organizing Committee of the International Geological Congress (IGC) held in Oslo in 2008. Director of Natural History Museum at the University of Oslo (May 2009-2015). Member of the British Geological Survey (BGS) – Science and Management Audit Team in 2003 and the Moderating Panel of BGS in 2004. Member of the Review Panel of the European Consortium for Ocean Research Drilling (ECORD) in 2006 and Chairman of the Evaluation Committee of ECORD – European and Canadian part of IODP (2011-2012). Member of the Legal and Technical Committee of the International Seabed Authority (ISA) from 1996-2006 and Norwegian Delegate to the Assembly of ISA.

David Ovadia

A geophysicist by background, he was appointed in 1978 to a post-doc research role at the UK's Institute of Oceanographic Sciences before taking a senior management position at the British Geological Survey (BGS) in 1991. He was later appointed Director of BGS International, retiring in 2011 to become CEO of its spin out company, International Geosciences Services (IGS) Ltd., of which he is now its non-executive chairman. He has served as a director of Spectrum General Partners Ltd., a company that invests in early stage science spin-outs from research councils, and as chairman of South East African Mining (SEAM) Ltd. He is currently a non-executive director of Blenheim Natural Resources plc., a London listed company investing in the global extractives sector. During his years as Director of BGS International, he carried out strategic analyses and advised the Geological Surveys of Botswana, Egypt, Malaysia, Papua New Guinea, Zimbabwe and led the strategic review of CCOP (Coordinating Committee for Geoscience Programmes in East and Southeast Asia) in 2010. Subsequently he was part of a EuroGeoSurveys team that advised the Geological Survey of Greece. His academic posts have included the Open University, the Universities of Liverpool, Nottingham and Nottingham Trent, and he is currently an associate of the University of Dundee. He was awarded the honour of MBE in 2010 for services to science.

Ingrid Verstraeten

Dr Ingrid Maria Verstraeten started her career with the USGS in 1991 as a hydrologist and physical scientist and currently is the Chief of USGS Programs with Europe, Russia, and Central Asia, Circum Arctic, and International Organizations, Office of the Director, International Programs, U. S. Geological Survey. She started her career with the USGS in 1991 as a hydrologist and physical scientist. She recently served as Vice Chair for the Working Party on Biodiversity, Water, and Environment (WPBWE) of the Environmental Policy Committee of OECD and is the US lead on several bilateral Working Groups including the US-Italy Working Group on Earth Sciences and the US-Kazakhstan Working Group on Data for Improved Natural Resources Management. She also is the USGS lead for the USGS-INGV

cooperation. Her degrees are in hydrogeology, geochemistry, geology, and soil science obtained from the University of Nebraska (PhD and MS) and the Catholic University of Leuven (Licenciaat and Kandidatuur), Belgium. She is a licensed Professional Geologist. Dr Verstraeten is an active member of scientific organizations, participated on scientific review panels (US and EU), convened special sessions, and has been an associate editor. She has published numerous scientific peer-reviewed papers and book chapters.

Jacques L. Varet

Consultant, SARL Géo2D. Associate Professor Dedan Kimathi University of Technology (DeKUT) – Kenya.

PhD thesis, 1967, State thesis 1973, Paris-South University; First L.R.Wager Prize award for Volcanological Research from IAVCEI & Royal Society (with Franco Barberi), 1971.

1966-1976: Assistant professor at Paris South University (Orsay, France) and Addis-Ababa (Ethiopia); CNRS Research Team Leader (Afar & Eastern Africa Rift); NERC project partner.

1976-1986: Head of Geothermal Dept, Director for Energy, French geological Survey (BRGM). Founding President - Compagnie Française de Géothermie (CFG, BRGM group).

1986-1996: Counsellor for Science and Technology, French Embassy – Beijing, China; Director for Energy, Ministry of Research and Technology; Director, Institut Français de l'Environnement; Director for Research and Economic Affairs, Ministry of Environment Paris.

1996-2011: Director of the French Geological Survey; twice President of EuroGeoSurveys; Foresight & Strategy Director BRGM; Advisor to the CEO.

2011-Present: Consultant, Geothermal Energy and Sustainable Geosciences Applications (SARL Géo2D); Advisor to the Minister of Energy, Water and Natural Resources, Djibouti; consulting for GEOTHERM (BGR), AFD, EU, amongst others.

Past or present Member of the Board/President/Scientific Advisor of various entities: CTGA Italy, ALCEN, Electerre de France, CFG, ENAG, CESMAT, PNC, CPP, FFEM, asso.4D...).

Languages: French, English, Italian, German.

Jonas Satkunas

Jonas Satkunas is a hydrogeologist and engineering geologist by training, with a Doctorate of Natural Sciences from Vilnius University. Since graduating, he has worked at the Lithuanian Geological Survey, holding different positions: Geologist, Head of Division, Deputy Director (1994 –2014) and as Director since February 2014. He is also Associate Professor of Vilnius University. Since 1992 J. Satkunas was involved in active international cooperation and was a member of numerous international projects and organisations: INQUA-SEQS (1995-1998), ProGEO, TerraFirma, EuroGeoSurveys (member of Executive Committee since 2015), IUGS etc. He is co-organizer and lecturer of international workshops and field trips related with environmental monitoring (Geoindicators) and management in Lithuania

(1999, 2003), Poland (2000), Brazil (2000, 2007), Zambia (2001), Argentina (2002), Peru (2002), Egypt (2003), Australia (2003), Italy (2004), Nicaragua (2005). Lecturer of international conferences and field trips in Europe, Canada (2001, 2005), Malaysia (2008), China (2005), Japan (2002, 2008, 2011, 2015) Mauritania (2005), Uruguay (2009), Namibia (2010), Thailand (2012). Author and co-author of over 300 publications (papers, abstracts, books, popular papers).

Kenneth Ko

Kenneth Ko is the Director for Management Services and International Affairs of the Earth Sciences Sector, for the Department of Natural Resources Canada. He has been involved in international cooperation on Earth sciences since 2006, and has overseen technical assistance projects on behalf of the department in close cooperation with foreign governments and multilateral agencies such as the World Bank and the Inter-American Development Bank. Some examples of successful initiatives are the Multi-Andean Project: Geosciences for the Americas, which included seven Andean countries, geoscience and remote sensing studies in India, geochemistry and hazards cooperation with China, and the building of a national geomatics framework in Senegal.

Luca Demicheli

Since April 2009 Luca Demicheli has been Secretary General of EuroGeoSurveys, the Brussels based organisation representing the Geological Surveys of Europe – the national institutions responsible for geological inventory, monitoring, knowledge and research for the security, health and prosperity of society. Following a Decree of the Italian Minister of the Environment, he was charged with the position of Secretary General of the Italian Committee for the International Year of Planet Earth, a UNESCO initiative to promote earth sciences among decision-makers and the public at large. Formerly responsible for the coordination of the international activities of the Geological Survey of Italy, he also served for several years within the European Commission where he launched and coordinated the environmental strategy of several major international scientific projects. A geologist specialised in environmental engineering and environmental management and planning, he performed his post-graduate studies at the Swiss Federal Institute of Technology, at the National Technical University of Athens, and at Imperial College London. He is member of several national and international task forces, committees and management boards.

Manuel Regueiro y González-Barros

Manuel Regueiro is BSc Geology, by the Complutense University of Madrid (1979). Since 2005 he is Chief of External Affairs and Communication of the Geological Survey of Spain (IGME), although he has been working (and still works) the previous 18 years as a specialist on industrial minerals and rocks in the former Industrial Minerals and Rocks Department of the Mineral Resources Division of the Survey. He was, from 1993 to 2013, Associated Professor of the Department of Crystallography and Mineralogy (Faculty of Geology, Complutense University of Madrid) where he is now Honorary Collaborating Professor. He has a wide experience in most fields of professional Geology, as he has worked in the cement and oil industries and in mining, hydrogeology and geological engineering, from

direct field work to management of human and material resources. He also has considerable international experience and has worked in many countries in America, Africa (Mauritania, Morocco, Sudan and Libya) and Europe. He is fluent in English, French and Spanish and has knowledge of German and Arabic. He is author or co-author of 12 books, more than 100 papers in specialised magazines in Spain and all over the world on very varied subjects from mineral resources to geological hazards and geological heritage. He has also written 12 memoirs of the Spanish Geological Map (mineral resources section) and many others of industrial minerals and rocks maps. He is currently member of several national and international magazines editorial boards and from 1995 to 2000 he was founder and editor of the first 10 issues of the European Geologist magazine published by the European Federation of Geologists. He has also presented more than 90 papers in various congresses and scientific conferences. As a researcher at IGME and in the Dept. of Crystallography and Mineralogy, he has participated in over 30 research projects. As principal investigator, he has directed 6 research projects. He has a wide and recognised international reputation in his field of knowledge and represented IGME officially in the now extinct Forum of European Geological Surveys (FOREGS) as President of the Non Metallic Minerals and Industrial Rocks Working Group and as a member of the Mineral Resources Policy Sector Group in EuroGeoSurveys, an organisation where he currently represents IGME as National Delegate and member of several Experts Groups. He is also IGME's representative in various working groups in European and International Standardisation as secretary of ISO/TC 196 "Natural Stone" and President of WG 1 "Terminology, Classification and Characteristics" of CEN/TC 246 "Natural Stone". He has also been a member of the Industrial Minerals Iberoamerican Network (RIMIN) of the Iberoamerican Program of Science and Technology for Development (CYTED). Manuel Regueiro has been the President of the European Federation of Geologists an organisation where he served as president for two mandates (1996-1999 and 2007-2009) and is currently Vice-president of the Spanish Association of Professional Geologists (ICOG) and founding member and former Secretary of the NGO "World Geologists."

Patrick Wall

Patrick Wall is a scientist by training, holding a Bachelor of Science Degree in Chemistry and a Master of Science Degree in Environmental Science from University College Dublin, Ireland. In 2010, he entered the scientific policy sector through an internship at the European Commission Directorate General for Research and Innovation where he was heavily involved in their communication activities promoting various FP7-funded projects under the theme "Environment". Since 2011 he has held the position of Scientific Policy Officer at EuroGeoSurveys, monitoring and providing links between EU policies and relevant geological research and innovation developments. He has been involved in various EU-funded projects including I2Mine (Innovative Technologies and Concepts for the Intelligent Deep Mine of the Future) and Minerals4EU (Minerals Intelligence Network for Europe), amongst others with both EuroGeoSurveys and the European Technology Platform on Sustainable Mineral Resources, for whom he runs the Secretariat. He is also charged with assisting EuroGeoSurveys in fulfilling their strategic ambitions.

Robert Doyle

Mr. Doyle currently serves as a consultant on management and organizational change to the State of Alaska, Department of Natural Resources. After 36 years Mr. Doyle retired from Federal Service in 2010. He has held a variety of leadership positions as a senior executive and served as Deputy Director/COO, U. S. Geological Survey (USGS) for eight years. Before joining the USGS, he was the Assistant Director/CFO for the Bureau of Land Management (BLM). He has also served as the Director of the Federal Helium Program and for more than 10 years, was the Director/Deputy Director for Finance and Administration for the U.S. Bureau of Mines (USBM), Department of the Interior. Mr. Doyle began his Federal career as a management analyst at the Department of Housing and Urban Development (HUD) in 1974.

Over the past 15 years, Mr. Doyle has been a leading change agent within government. He has directed and managed significant organizational restructuring and downsizing, including the closure of a government Agency. Most recently, as Deputy Director for the USGS, he led efforts to restructure regional organizations and realign operations to facilitate and reinforce implementation of the new Bureau science strategy. During his tenure with BLM as Assistant Director, Business and Fiscal Resources, he directed the implementation of an integrated management system for improving organizational performance and accountability. Under his leadership, the BLM was recognized as a finalist in the President's FY 2002 Quality Award for budget and performance integration. Mr. Doyle has worked at both the Federal and local levels and, as a former program manager, has a sound appreciation for performance management and its importance to driving an organization to achieve its overall mission. During his career he has been honored with the prestigious Presidential Distinguished and Meritorious Awards in recognition for his significant accomplishments.

Mr. Doyle earned a Bachelor of Arts degree in Political Science from the College of the Holy Cross in 1971 and a Masters in Public Administration from Southern Methodist University in 1974.

Santiago Martín Alfageme

Santiago Martin Alfageme is a graduate in geology (Complutense University, Madrid). Geographical Information System (GIS) specialist since 1991. Former Chief of GIS Lab at the University of Salamanca (www.stig.usal.es). Participation in several GIS projects dealing with databases modelling and geological cartography. Some skills include spatial database management, object-oriented programming and web application developing. Programming languages include ASP, Java, JavaScript, Python and Visual Basic for Applications. Other web technologies includes mark languages such as XHTML, CSS and XML. Co-author of 3 books, and about 20 research papers on GIS. Participation in 15 research projects. Coordinator of the Spanish Team in the Promine Project (FP7) focused on 3D modelling of ore deposits and potential mine areas. His role in the project included integration and harmonization of the information delivered by mining companies and build-up of 3D ore deposit models. Since March 2013, member of IGME staff: Head of the Technical Cabinet in charge of International Relations.

Tomasz Nałęcz

Dr Nałęcz's professional career is tied to the Polish Geological Institute (PGI) where he began work in 1994. He graduated from Warsaw University in 1995 presenting a thesis on hydrogeology, to win the Semkow Best MSc Thesis Award. For many years he worked at PGI as an assistant in the Department of Environmental Geology, mainly on projects related to the Geo-environmental Map of Poland. He conducted hydrogeochemical research in Gdańsk and Szczecin urban areas. A summary of this work earned a PhD in Earth Sciences in 2003.

In 2004 he began work at the Polish Hydrogeological Survey (PHS), where he performed tasks related to the management of groundwater monitoring as well as implementation of the EU Water Framework Directive. On behalf of the PSH, he also supervised cooperation with Poland's eastern neighbours. His experience from work in bilateral committees on transboundary waters made it possible to initiate and lead the NATO project "Sustainable Use and Protection of Groundwater Resources Transboundary Water Management". As part of this project, Dr Nałęcz organized a number of international conferences and published two books in the NATO series Science for Peace and Security.

In 2005-2011, as a representative of the PHS he took part in works of the International Commission for Protection of the Oder as the Deputy Chairman of the Data Management Working Group. After this experience at the PHS he was appointed the Head of PGI Environmental Geology Department where he worked until 2009. Due to many years of professional interest in spatial information systems he began work for the Geoinformation Division in 2009, focusing on implementation of the INSPIRE Directive. Dr Nałęcz was a member of the working group founded by the European Commission to prepare data specifications for the INSPIRE Directive themes Geology and Mineral Resources. He is a member of the EuroGeoSurveys Spatial Information Expert Group (SIEG).

In 2013 he was appointed the Head of PGI International Cooperation Division, responsible for developments of foreign contacts and cooperation (international policy-making). He is a member of the EGS Strategy Task Force. Since December 2015, Dr Nałęcz acts as Deputy Director, Geoinformation Director.

Dr Nałęcz is the author of numerous articles, books and presentations on geoinformation, hydrogeology and environmental geology. He completed postgraduate studies in project management at the Warsaw School of Economics and the Kozminski Academy. He is a member of the International Hydrogeological Association and the Polish Spatial Information Association. Dr Nałęcz holds hydrogeological professional qualifications and certificates of project management PRINCE2 Foundation and IPMA Level D.

Vladimir Kostylev

Vladimir Kostylev is Section Head for Coastal and Shelf Studies with the Geological Survey of Canada (Atlantic), Natural Resources Canada and currently the leader of coastal infrastructure project within the Climate Change Geoscience Program. His expertise is in seabed mapping, spatial modelling and integration of spatial data for regulatory process and knowledge discovery. Dr Kostylev received his Ph.D. degree in Marine Zoology from Gothenburg University (Sweden) in 1996. He carried multidisciplinary research in a variety of geographical areas - from polar to tropical, and from coastal

to deep-water. Since 1998 he has been actively involved in seabed mapping at Natural Resources Canada, carrying research on the relationship between distribution of benthic habitats and physical properties of seafloor sediments and managing research projects within National programs, such as Geoscience for Ocean management. Working in interdepartmental science team he has developed habitat management template for Scotian Shelf - a decision support tool aimed at aiding managers in seabed use conflict resolution and in enforcement of Canada's Oceans Act. In 2008 he received Federal technology Transfer award for successful development, transfer and commercialization of multibeam seafloor imaging applications for the fishing industry. Vladimir is also adjunct scholar at Dalhousie University and has experience in teaching graduate and undergraduate level courses, reviewing Ph.D. theses, and supervising Post-doc and graduate students.