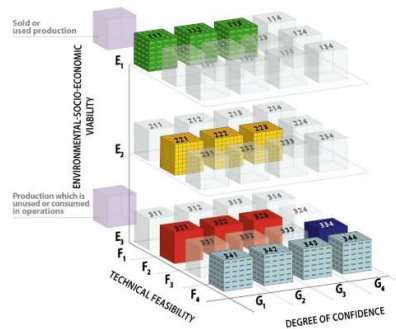




# UNFC - United Nations Framework Classification

## Speaker Biography Volume



# UNFC – United Nations Framework Classification.



## PROGRAMME (Tuesday 20<sup>th</sup> February 2024)

Start	End	Session	Topic	Speaker	Company
09:45	10:00		Registration		
10:00	10:15		<b>Introduction &amp; welcome</b>	Tania Marshall	GSSA
10:15	10:45	UNFC	Introduction to UNFC	Hari Tulsidas	UNECE
10:45	11:00		The Qualified Expert	Vitor Correia	INTRAW
11:00	11:30		EU Critical Raw Minerals Act	Eberhard Falck	INTRAW
11:30	11:45		UNFC Guidance Europe	Julian Hilton	Aleff Group
11:45	12:00	<i>BREAK</i>			
12:00	12:30	UNFC Case studies	Introduction on the application of UNFC to residues in the mining sector	Ulrich Kral	Environmental Agency Austria
12:30	13:00		Practical UNFC tailing case study	Ronald Arvidsson	Geological Survey of Sweden
13:00	13:30		Classifying mineral resources in Finland according to UNFC	Janne Hokka	Geological Survey of Finland (GTK)
13:30	14:00		Case study (Emili Lithium Project)	Jurgen Fuijkschot	Imerys
14:00	14:15	<i>BREAK</i>			
14:15	14:45	AMREC / PARC	Introduction to AMREC	Tunde Arisekola	UNDP – AMDC
14:45	15:15		AMREC Case study	Andreas Salom	Nedbank Namibia Ltd
15:15	15:45		AMREC Case study - petroleum	Felix-Bob Ocitti	Petroleum Authority of Uganda
15:45	16:15		Introduction to PARC	Gbenga Okunlola	Chair of PARC Committee
16:15	16:30	<i>BREAK</i>			
16:30	17:00		UNFC/AMREC reporting in SA	Mosa Mabuza	Council for Geoscience
17:00	17:15	CRIRSCO	CRIRSCO (SAMCODES) Reporting in SA	Ken Lomberg	CRIRSCO
17:15	17:45		Differences between UNFC and CRIRSCO reporting and bridging documents	Hendrick Falck	Geoscientists Canada
17:45	18:00		<b>Q&amp;A &amp; wrap-up</b>		GSSA

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## SPEAKER BIOGRAPHY



### Hari Tulsidas

Harikrishnan “Hari” Tulsidas has over 30 years of experience managing natural resources and materials. He has extensive experience in exploration, resource evaluation, classification, techno-economic feasibility studies, sustainable energy development, data analysis, information processing, and simulation studies, public reporting, and innovation management. Currently, Mr Tulsidas works as an Economic Affairs Officer in the United Nations Economic

Commission for Europe (UNECE). Previously, he had worked with the International Atomic Energy Agency (IAEA) as a Nuclear Technology Specialist and the Department of Atomic Energy, India as a Scientist.

Mr Tulsidas is currently the technical advisor developing, maintaining, and applying the United Nations Framework Classification for Resources (UNFC) and United Nations Resource Management System (UNRMS). Moreover, he is the Chair of the UNECE Sustainable Natural Resource Use Nexus Group. He supports the UNFC Europe project on raw materials management in cooperation with the European Union. In addition, Mr Tulsidas is a Senior Technical Advisor to the African Union on developing the African Mineral and Energy Classification and Management System (AMREC).



### Vitor Correia

Vitor is Secretary-General of the International Raw Materials Observatory, a non-profit, independent, international association that supports international cooperation in the mineral raw materials’ field, and he works as an independent consultant active in EU and multilateral development projects. Vitor founded and managed companies working in mineral exploration, mine permitting, environmental impact assessment and geotechnics, and he has over 28 years of experience in strategic management, innovation and

organizational effectiveness. He began his career as a mine geologist, and he worked in mining, geological engineering and environmental geology projects in Europe, Africa and South America.

Vitor is a member of the Expert Group on Resource Classification of the United Nations Economic Commission for Europe (UNECE; since 2014) and he is Past President of the European Federation of Geologists (2013-2019). He was member of the Board of the Portuguese Association of Geologists (2007-2019) and he’s an Honorary Fellow of the

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Geological Society of London. Vitor holds a BSc in Geology and an MBA, both from the University of Lisbon, and he holds the EuroGeologist professional title (since 2011).



## Eberhard Falck

W. Eberhard Falck trained as a geologist at the Universities of Kiel and ETH Zürich and obtained his PhD in environmental geochemistry from the Technical University of Darmstadt (DE). Stations of his professional career included the British Geological Survey, the consultancies ISMES S.p.a. (Bergamo/Rome, IT) and WS Atkins (Berlin, DE, and Epsom, UK), the International Atomic Energy Agency (IAEA, Vienna, AT), the Joint Research Centre of the EC (Petten, NL), and professorships at the Université de Versailles - Saint-Quentin-en-Yvelines and EMT Nantes (FR). He is currently based in Paris, working as consultant mostly on mineral raw materials

matters and is the president of the INTRAW International Raw Materials Observatory.



## Julian Hilton

Julian Hilton BA MA D. Phil (Oxon) is Chairman of the Aleff Group. The Group was co-founded with Dr. Malika Moussaid in 1992 at the suggestion of the European Commission. He currently leads Aleff Group global project teams for industry clients in the mining, minerals and critical raw materials sectors, focused on Master Planning of major new industrial eco-systems focused on industrial diversification and transitioning away from oil and gas to energy renewables. His focus is on Sustainable Development and the Circular Economy with a particular interest in secondary raw materials and ESG finance.

Julian chairs the SDG Delivery Working Group of UN Economic Commission for Europe (UNECE) and as a member of the UNECE Expert Group on resource Management has been working with the UNFC since 2010. Since 2017 he has been a member of the AMREC Working Group, a close relative of UNFC. In 2019 with Hari Tulsidas, he proposed the creation of a UN Resource Management System (UNRMs) at the World Resources Forum in Geneva to complement the function of UNFC as a resource classification system. The idea rapidly gained traction and as of July 2023, the Economic and Social Council of the UN has formally adopted both UNFC and UNRMS for global use.

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Uses of both these tools for resource management are now also mandated in the EU Critical Raw Materials Act (CRM Act), 2023 and the UK Critical Materials Policy document, 2022.

With Ludwig Hermann he currently has lead responsibility for Work Package 6 of the EU Horizon Project CIRAN (2023-2025), focused on finding a combination of policy and practical measures to ensure successful uptake and delivery of the EU Critical Raw Materials Act, including uses of UNFC and UNRMS. In this way it may be a useful reference case for AMDC's work in promoting and delivering the AMREC system for the African region.

He currently chairs the IAEA Environet Working Group on NORM industry tailings and residue valorisation, and he has led or participated in IAEA Expert Missions in more than 30 countries, mostly in the Africa region. He sits on the Sustainability Committee of the International Fertiliser Association, convening its Phosphogypsum Working Group. He is widely published and a frequent speaker at international meetings and conferences.



## Ulrich Kral

Educated in Austria, Dr Kral has a background in civil engineering and holds a waste expert position at the Waste and Material Flow Management team of Environment Agency Austria. His work focuses on the assessment of material flows from sources to final sinks to manage the use of resources and protect the environment. As member of the UNECE Expert Group on Resource Management, he supports the promotion and development of the United Nations Framework Classification for Resources (UNFC).



## Ronald Arvidsson

Education and early career:

Bachelor Geology and Geophysics and PhD in Seismology from Uppsala University

Postdoc at Harvard

Recent career:

Head Department Mineral Information, Geological Survey of Sweden, 2013-2014

Senior Geophysicist at Geological Survey since 2012

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Coordinator H2020 Minland project, 2017-2019  
WP leader exploration, H2020 project X-Mine project, 2016-2020  
Participant SCRREEN and SCRREEN 2 projects  
Mining waste stream lead HE project Futuram, 2022-  
WP lead HE project CIRAN 2022-



## Janne Hokka

Janne Hokka is a Senior Specialist who acts as the leading technical expert in UNFC classification for minerals at the Geological Survey of Finland (GTK). His expertise ranges from ore deposit research to mineral exploration, 3D modelling, and resource estimations. In 2022, he served as the primary reviewer for the UNFC Guidance Europe and is currently a part of the expert group updating the CRIRSCO-UNFC Bridging Document. Janne holds the title of EurGeol and is a member of the Minerals Working Group (UNECE) and PERC

(The Pan European Reserves and Resources Reporting Committee) through the Fennoscandian Association for Metals and Minerals Professionals (FAMMP).



## Jurgen Fuijkschott

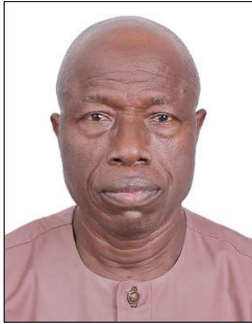
Jurgen Fuykschot, MAusIMM(CP) MBA MSc is a Dutch mining engineer who has 10 years of practical experience gained at gold and nickel underground operations in Australia and an open pit gold mine in Guinea, followed by 15 years as a consultant at SRK. He is the holder of an MBA and an Australian First Class Mine Manager's ticket.

Jurgen is an experienced user of Surpac, Datamine, and MineSched for the creation of underground designs, 2D and 3D visualizations and mine scheduling. He has a good understanding of the interrelatedness of the various technical disciplines for setting up and improving mines. Having worked in Moscow for two years, he also has experience with the project/resource systems and requirements for mining in CIS countries. During his time at SRK he has worked on a multitude of technical and due diligence studies in a large variety of commodities.

He joined Imerys in July 2022 as Director of Mining and Resources for Project Emili, an underground lithium project located in the centre of France.



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## Tunde Arisekola

Tunde M. Arisekola was admitted into the University of Ilorin, Nigeria, where he graduated in 1987 with a B.Sc. (Hons) in Geology. He furthered his education at the University of Ibadan, Nigeria, where he bagged M.Sc. in Mineral Exploration (Geochemistry Option) in 1998.

Following the mandatory one-year youth service to the country as a Youth Corper at Mobil Producing Nigeria Ltd. from 1987 to 1988, Tunde M. Arisekola joined the Nigerian Geological Survey Agency in 1989 where he worked for 34.5 years and rose to the position of

Director, National Geosciences Research Laboratories, Kaduna -Where he retired on 1<sup>st</sup> May 2022. Tunde was recruited by United Nations Development Programme (UNDP) as Senior Advisor, Geological and Minerals Information on 16th May 2022 and seconded to Africa Minerals Development Centre (AMDC), an Agency of African Union based in Addis Ababa, Ethiopia where he works to date.

## Andreas Salom



Dr. Salom is a mining engineer with over a decade of experience across military, mining, research, and business development, coupled with a strong background in corporate finance. His professional journey, spanning includes a tenure as a Researcher Fellow at the CERENA - Polo FEUP, Faculty of Engineering, University of Porto in Portugal culminating in a PhD in Mining Engineering. Dr Salom holds dual master's degrees, one in Master in Business Administration and another in Mining and Geo-Environmental Engineering.

In August 2022, Dr Salom joined Nedbank Namibia Limited, where he is instrumental in cultivating and sustaining relationships with both corporations and government entities. His core responsibilities encompass the strategic deployment of capital, aiming to foster

Dr Salom's recent accomplishments include actively participating in financing transactions with prominent entities such as Namdeb, PUMA, Whale Rock Cement, CMC-Otesa JV, and Road Funds Administrators, underscoring his proficiency in navigating complex financial landscapes and contributing to the success of high-profile ventures.

## Felix-Bob Ocitti



Felix Bob Ocitti works as the Programme Lead for Research Oil and Gas Programme at the African Energy Commission of the African Union where he oversees policy development, advocacy and technical support to AU member states. He previously served as Manager, Operations and Compliance and a Senior Geoscientist at the Petroleum Authority of Uganda (PAU). Before joining PAU, Felix worked in the Ministry of Energy and Minerals Development.

He is a member of the African Union AMREC Working Group charged with developing and promoting the African Minerals and Energy Resources Classification and Management system (AMREC), he is also a member of the

United Nations Resource Management Systems (UNRMS) sub-group and member of Petroleum Working Group (PWG) under the United Nations Economic Commission for Europe (UNECE).

Felix holds a Master's in Petroleum Geoscience (Development & Production) from Imperial College London UK, a Master's in Petroleum Geology (Exploration) from China University of Geoscience, LLM International Oil and Gas Law and Policy from the University of Dundee UK and a Bachelor of Science, Industrial Chemistry from Makerere University.



## Gbenga Okunlola

Professor Olugbenga Okunlola holds a PhD degree in Economic Geology of the University of Ibadan, Nigeria, where he is currently Head, Department of Geology.

He has 40 years' experience as a geoscientists that straddles the public service, industry and academia. He currently chairs the Mining Road map Implementation Strategy Team (MIST). He is also the coordinator of the Solid Minerals, Mines and Steel Technical Working Group (TWG) for the

development of the Federal Government Medium Term National Development plan (2021-2025). He is also a member of the minerals sub group of the United Nations Economic Commission for Europe (UNECE) expert working group for the development of the United Nations framework for minerals and Energy Resource systems (UNFC). A member of the African Union (AU) Expert working group for the development of the African Mineral Resources Classification and Pan African Resource and Reserve code AMREC-PARC and also a member of the African Union commission, expert working group on development of policy frame work for Artisanal Mining and Mineral Governance in Africa.

He is currently the President of the Geological Society of Africa, Past President of The Nigerian Mining and Geosciences Society, President of the Geoscience Information and Research in Africa Network (GIRAF) and Vice President for Africa, Association of Geoscientists for International Development (AGID).





## Mosa Mabuza

Mosa Mabuza, based in South Africa, is currently a Chief Executive Officer at Council for Geoscience, bringing experience from previous roles at Department of Mineral Resources and De Beers. Mosa Mabuza holds a University of the Witwatersrand. With a robust skill set that includes Minerals, Mining, Mineral Exploration, Geology, Geological Mapping and more, Mosa Mabuza contributes valuable insights to the industry.



## Ken Lomberg

Ken has some 35 years' experience in the minerals industry (especially platinum and gold). He has been involved in exploration and mine geology and has had the privilege of assisting in bringing a mine to full production. His expertise is especially in project management, mineral reserve and resource estimation. Ken has undertaken mineral resource and reserve estimations and reviews for platinum, gold, copper, uranium and fluorite projects. He has assisted or compiled Competent Persons Reports/NI 43-101

for various projects that have been listed on the TSX, JSE and AIM stock exchanges. Ken is a director of Pivot Mining Consultants, a renowned local mining consultancy.

Ken is the Past Chairman of the SAMREC Committee and also a Past Chairperson of CRIRSCO.

## Hendrick Falck



Hendrik Falck is a Mineral Resource Geologist who has worked for Industry and Government as an exploration geologist, research scientist, consultant, and policy adviser for over 35 years. He has experience in resource management at many different levels: from diamond exploration to regional resource assessments, and government policy making.

He is Technical Editor for CIM Journal, Member of the Mineral Resource/Mineral Reserves Committee, Canadian Institute Mining and Metallurgy; Past-President for Geoscientists Canada and NWT Association of Professional Engineers and Geoscientists; and has an extensive list of publications related to his expertise published in journals and conference proceedings.