

ABSTRACTS AND PRESENTER BIOGRAPHICAL INFORMATION

Abstracts for presentations and biographical information for presenters are listed below by the suggested Provisional Programme and Order of Business. Abstracts and biographical information appear unmodified, as submitted by the corresponding authors.

DAY 1, 11 OCTOBER

Keynote 09:30-09:45

ERIK ANDERSSON (DR., MR.)



Deputy Director of Forecasts at the European Centre for Medium-Range Weather Forecasts (ECMWF) since July 2013. Erik holds a PhD from Stockholm University in Atmospheric Sciences, Dynamic Meteorology. Erik has many years of experience in data assimilation and numerical weather prediction (NWP). For a period of eight years (2000–2008),

as Head of the Data Assimilation Section at ECMWF, he was in charge of the development of the 4D-Var assimilation scheme, acquiring extensive knowledge of the observing systems (terrestrial and space based) and their impacts on NWP. He is the Chair of the World Meteorological Organization (WMO) expert team on Observing System Design and Evolution. He is also the Chair of the scientific expert team of the EUMETNET Observations Programme on the evolution of the European meteorological observing systems.

Title: Observational Data - the fuel of the GWE

Abstract: Ensemble forecasting, at a resolution of 5 km globally, is a realistic goal for Global NWP in 2025, to deliver reliable predictions of the likelihood of occurrence of high-impact, severe weather events up to two weeks ahead. An Earth system modelling approach is being adopted in order to better incorporate the influence of the oceans, land surfaces, snow, sea ice, lakes and dust aerosol on weather. Modelling will also focus on weather patterns in the tropics and their influence on the subsequent development of large-scale weather-regime transitions in Europe, and more generally in the mid-latitudes, as these are associated with heat waves, cold spells and periods of drought or extreme precipitation. These developments lead to significantly more demanding requirements for observations, in terms of globally distributed, high-density measurements of the atmosphere and oceans, as well as the land, snow and ice surfaces.

SESSION 1:

BUSINESS MODELS FOR DATA GENERATION AND DELIVERY

Presentation 1 (Pr1) 09:45-10:00

VLADIMIR TSIRKUNOV (MR.)

PATRICK BENICHOV (MR.)

DIMITAR IVANOV (MR.)



Title: Sustainable business models – introduction

Abstract: Global weather enterprise is undergoing major change characterized by increasing contribution of private sector to the delivery of weather, climate and hydrological information and services. This creates a particular set of challenges to the developing countries where NMHSs are still relatively weak, cannot fully satisfy the users needs and cope with the speed and scope of the ongoing changes. In this context, many governments in developing countries introduce policies stimulating NMHSs to recover significant part of their costs from “fee-based” services. Evidence suggests that current small share of fee-based income generated by NMHSs in developing countries (usually below 5% of total NMHS budget) is not increasing. It is difficult to expect that NMHSs’ fee-based income will grow if no change is being brought to their core capacities and to their operating model. Main donors shall also consider how to best invest in NMHS modernization projects to maximize the outcome and socio-economic benefits for the beneficiary countries. Restricting the development of private sector services as chosen by some countries will likely lead to deterioration of services. The presentation discusses the challenges and potential pathways to find sustainable business models involving public and private sector and looking at the main elements of hydromet service value chain on the national level.

Presentation 2 (Pr2) 10:00-10:20

STEFAN VON GRÜNIGEN (MR.)



Project Lead. Stefan von Grünigen holds a degree in Economics and has worked for the Switzerland based consulting company econcept since 2010. In his projects, he mainly works on economic analyses and evaluations and questions relating to regulation and policy design. He published several articles on the economic benefit of meteorology and climatology.

CHRISTOPH RAMSHORN (MR.)



Independent consultant and specializes in multi-stakeholder projects that require a high degree of transparency to achieve sustainable partnerships. As a co-founder of meteoblue AG, a global provider of automated weather forecast products and services, he has specific interest in models of public private engagement around weather services.

Title: Private Public Engagement in Hydromet Services: Preliminary Country Analyses and First Findings

Abstract: Modernizing hydromet services improves the world’s weather and climate resilience and enhances socio-economic benefits. At the same time, we observe a massive technological shift that affects how the value of hydromet services is created and shared. Most stakeholders argue that in this context the partnership between the public and the private sector is crucial for the efficiency and effectivity of hydromet services.

There is substantial guidance material on how to run or organize national hydromet services, but much less is known about how to best leverage private sector capabilities through some form of public private engagement. Our study aims to elaborate on a comparative analysis of public private engagement on hydromet services in ten countries. We analyze the characteristics of different models of public private engagement and show potential options to countries which would wish to streamline and augment public and private engagement in the hydromet domain.

The study, which will be completed early next year, is sponsored by the World Bank Group and supported by the World Meteorological Organization. We appreciate the opportunity to present a preliminary analysis of five countries and our first findings to the members of the Global Weather Enterprise Forum. Your feedback is much appreciated and will help us to steer the final phase of our work.

Presentation 3 (Pr3) 10:20-10:40

CATHY PHIRI (MADAME)



Senior Program Officer for the Agriculture and Enterprise Unit of Winrock International, a non-profit organization based in Washington, D.C. She is overseeing USG funded projects in South East Asia and Sub-Saharan Africa and has 15+ years of experience providing technical delivery, monitoring, evaluation and learning, and administrative and strategic support for a wide portfolio of agriculture focused projects around the topics market systems, economic development and resilience, including contributing to the Sustainable Climate Information Services project funded by the U.S. Agency for International Development. She has field implementing experience in senior management field positions in West Africa where she was part of teams that managing a large agricultural value chain development project, as well as a nutrition and agriculture project during the Ebola emergency in 2014. She holds degrees in agri-food marketing and business, and international management.

Title: Climate Information Services Market Assessment and Business Models Review

Abstract: Climate change poses a serious threat to the people of Sub-Saharan Africa. The Intergovernmental Panel on Climate Change predicts that heat and drought stress will decrease crop productivity in Africa, with strong adverse effects on regional, national and household livelihoods and food security. In order to cope and adapt, companies and individuals will need accurate and timely weather and climate information services (WCIS). The global market for WCIS is growing. WCIS expenditures increased by more than 35 percent from 2011-15, to an estimated total of \$56 billion. Data for Sub-Saharan Africa (SSA) is limited, but research indicates that the market for WCIS in SSA, including both public and private expenditures, is approximately \$1.4 billion. This is a small market compared to other regions, but it shows signs of growth. The National Meteorological and Hydrological Services are the primary source of WCIS in SSA, but they lack sufficient funding to build and maintain modern observation networks. Private-sector companies can help fill gaps in services, but they rely on high-quality data

but it shows signs of growth. The National Meteorological and Hydrological Services are the primary source of WCIS in SSA, but they lack sufficient funding to build and maintain modern observation networks. Private-sector companies can help fill gaps in services, but they rely on high-quality data gathered by governments to build value-added products and services. To engage the private sector, NMHS must generate robust and timely data at the national, regional, and local levels. This review paper is part of the USAID-funded Assessing Sustainability and Effectiveness of Climate Information Services (CIS) in Africa, carried out by Winrock International. This presentation provides a broad perspective of the research and learnings to better understand the WCIS market and business opportunities, including public-private partnership engagement, as well as to present an overview of a new financial modelling template for planning funding resources at the NMHS in SSA.

SESSION 2:

JOINT SESSION - CIMO TECO & GWE CONFERENCE – MEASUREMENT COMMUNITY MEETS THE GWE THINK TANK TO DISCUSS SUSTAINABLE MEASUREMENTS, INNOVATION, RELATED STANDARDIZATION AND QUALITY ISSUES

Presentation 1 (Pr1) 14:10-14:30

PETER PLATZER (MR.)



Co-founded Spire in 2012 with a vision to provide high frequency/high accuracy satellite-powered data from anywhere on earth. While Peter is regarded as a pioneer in launching small form factor satellites into space, he was also named a White House Champion of Change in 2013 for visionary leadership.

Prior to launching Spire, Peter trained at CERN and the Max Planck Institute. He has studied at Harvard Business School, Singularity University, NASA Ames, and International Space University

Title: The Coming Growth In The Global Weather Enterprise: Brought To Earth Through A Small Satellite Constellation Near You

Abstract: Technology has rapidly evolved over the last 6 decades. The mainframe gave way, at the surprise of many, to the proliferation of desktop PCs. Not far behind, the internet (with the help of mobile devices) has already produced two trillion dollar companies and an 8 trillion dollar “Internet Enterprise”. This theme is being repeated in space where nanosatellites are leading a revolution that will have the largest impact on weather forecasting that we’ve seen since the introduction of computer models. Given the nearly infinite computing power available and potential for data to match, the remaining question is: who will get ahead and who will be left behind?

Presentation 4 (Pr4) 15:10-15:30

IAN MILLER (DR. MR.)



Head of Global Weather Solutions for The Weather Company, an IBM Business serving clients globally delivering weather and climate services. In this role, he oversees global data acquisition, forecast system operations and API deployment. He also participates in the company’s relationships with members of the national and global weather enterprise that includes

national and international government agencies, and other private-sector providers, including philanthropic activities. Miller has served in similar roles throughout a 30 year career in weather services provisioning with The Weather Network in Canada, The Weather Channel UK, The Weather Channel and The Weather Company. He views the current moves towards a Global Public Private Weather Enterprise as a promising development.

Title: Internet of Things’ Growing Role in the Weather-Based Decision Process

Abstract: Indeed, IoT data is becoming critical for effective weather-based decision services. Whether it be new sources of weather data (e.g. smartphone pressures), intersecting non-meteorological data (e.g. traffic flow) or broadly deployed traditional sensors (e.g. low cost Personal Weather Stations) they all present challenges in a Big Data era where the creation, ability to communicate then store and retrieve these data present challenges unfamiliar to the Weather Enterprise. We face a need to create, integrated, big-data compute facilities that can power AI and Decision Science based outcomes to drive our Enterprise forward. IoT data adoption barriers are material (e.g. proprietary data, GDPR). Does WMO have a facilitator role in effective Weather IoT policies and use to drive the Weather Enterprise’s future path.

Presentation 5 (Pr5) 16:00-16:20

ALESSANDRA LIBERTO (MADAME)



Business Development Manager, Global Services, Campbell Scientific Inc.

Title: Quality, standards, fitness-for-purpose - what standards are needed in the GWE?

Abstract: A short presentation on Weather Observation Systems and Weather Forecasting, GWE subtask 1.4. “set, revise and enforce data and information standards” which is part of GWE’s Task 1. The presentation will provide a short update on the status of the sub-task including its redefinition, weather observations and weather forecasting quality ratings.

DAY 2, 12 OCTOBER

SESSION 3:

DATA FOR ALL DATA SHARING MECHANISMS, POLICIES AND GOVERNANCE – NEW PERSPECTIVES BROUGHT BY THE GWE

Keynote 09:00-09:30

PAUL N. EDWARDS (DR. MR.)



William J. Perry Fellow in International Security at Stanford University and Professor of Information and History (Emeritus) at the University of Michigan. He is a historian of science and technology, focusing principally on information technology, meteorology, and climate science. Edwards is the author of *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming* (MIT Press, 2010) and co-editor of *Changing the Atmosphere: Expert Knowledge and Environmental Governance* (MIT Press, 2001), as well as numerous articles.

Title: Meteorology as an information infrastructure: lessons from history

Abstract: What can the past teach us about the future of the global weather enterprise? This talk, by a historian of science and technology, revisits some key moments in the history of weather forecasting and climate science. Standards and technologies for data transmission and exchange proved contentious throughout the 20th century, even long after computerization in the 1950s and 1960s. Data reconciliation and long-term data storage remain complex even today. Since the turn of the 21st century, private sector contributions to meteorology have moved from added-value data products to infrastructure provision, throwing the basic role of NMHSs into question. The opportunities are manifold — but so are certain risks, including such challenges as maintaining data integrity, preserving public access, and avoiding a “splintering” of datasets critical to tracking the processes of climate change.

Presentation 1 (Pr1) 09:30-09:50

MICHAEL STAUDINGER (MR.)



Agency Executive of Central Institution for Meteorology and Geodynamics.

Title: Data policy now and in the future

Abstract: Data policy for meteorological data was based on the fact that nearly all the data in the past had been collected by the public sector and exchanged freely between the members of WMO, which were countries or territories. When commercial activities of the private sector and the commercial branches of the Met Services became more important a wider understanding of an adequate data policy was needed. Resolution 40 of WMO responded to these demands, differentiating between the use of forecasts for security and commercial activities. In the meantime significantly more meteorological data are produced by the private sector and data from other sources, which can be meteorologically relevant are entering the market. To find market mechanisms and regulations which incentivise the production and availability of these data and at the same time secure access to as many as possible market participants is the task of not only the meteorological community, but also governments, user groups and development agencies.

Presentation 2 (Pr2) 09:50-10:10

NEIL JACOBS (DR. MR.)



Assistant Secretary of Commerce for Environmental Observation and Prediction and NOAA's Deputy Administrator. In this role, Dr. Jacobs is responsible for the strategic direction and oversight of over \$3.4 billion in annual spending, supporting NOAA's broad portfolio of sea, air, land, and space observing platforms as well as the critical infrastructure for the assimilation and exploitation of environmental data. Previously as the Chief Atmospheric Scientist at Panasonic Avionics Corporation, he directed the research and development of both the aviation weather observing platform and weather forecast model programs. He was previously the Chair of the American Meteorological Society's Forecast Improvement Group, and also served on the World Meteorological Organization's aircraft-based observing systems expert team. Dr. Jacobs has bachelor's degrees in mathematics and physics from the University of South Carolina and master's and doctoral degrees in atmospheric science from North Carolina State University.

Title: Data Sharing - Incentive-based data exchange

Abstract: The challenges and opportunities associated with global environmental data exchange should be examined by the international community to ensure continued viability and success of the global data exchange system. As the world relies on increasing amounts of data, one of the primary issues is the potential for barriers to transferring data within the current architecture. Likewise, the landscape of environmental data providers is being altered to include commercial and other new vendors. The international community and relevant international organizations should consider how to best integrate new and emerging commercial technologies in a responsible manner. As the world increases its reliance on high quality data, international organizations need to focus on how they can best foster an environment that spurs continual innovation. Reasons such as these raise the question of how best to exchange and manage data on a global level. Solutions should not merely focus on updating data policies that are largely unenforceable or are making only incremental upgrades to aging data exchange infrastructure. The international community and relevant international organizations should explore initiatives that will support the continued growth and exchange of high quality environmental data through a responsible approach. This presentation will explore potential solutions such as cloud-based incentive-driven data exchange programs that take advantage of technological advancements to promote greater data sharing. Potential solutions could incorporate a variety of data sets and be scalable to support a range of operational needs. Big data management limitations in the global weather enterprise is one of the primary barriers, and an efficient architecture needs to be established before we can extract more value from existing data or process the significantly larger volumes of data that are expected to be produced over the next several years.

Presentation 3 (Pr3) 10:10-10:30

JEREMY TANDY (MR.)



Jeremy Tandy has worked at the Met Office for the last 16-years in several technical roles including Chief Technical Architect. In his current role of Technology Fellow, he works across the Met Office and with external partners to develop tools, standards and best practices that simplify and improve the sharing and use of data and information. He has written several standards published by the Open Geospatial Consortium (OGC) and the World Wide Web Consortium (W3C), and has lead expert teams within the WMO Commission for Basic Systems. Jeremy chairs the team responsible for determining how to evolve the WMO Information System (WIS).

Title: Data sharing for sustainable development - the evolution of the WMO Information System

Abstract: The WMO Information System (WIS) builds on a legacy of institutional data sharing beginning in the 19th century and formalised within WMO's World Weather Watch (WWW) programme in 1963. Data sharing ecosystems have changed beyond recognition since the inception of the WWW, yet WMO continues to employ the pattern of point-to-point data sharing between institutions established with the WWW. The second iteration of WIS (WIS 2.0) responds to the growing need to apply rapidly increasing volumes of meteorological data from increasingly diverse sources in understanding the grand societal challenges summarised in the UN's Sustainable Development Goals. WIS 2.0 aims to create a Web-based, open ecosystem for the sharing of authoritative weather, water and climate data, and will encourage the adoption of cloud-based solutions to overcome difficulties with increasing data volumes. This presentation highlights some of the challenges in realising WIS 2.0 and hopes to stimulate discussion about how to engage the entire GWE in delivering this change.

SHORT TALKS (10 MIN EACH)

AGNES LAWRENCE KIJAZI (DR. MADAME)



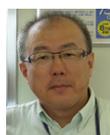
Director General, Tanzania Meteorological Agency (TMA) and Permanent Representative of Tanzania with WMO. She rose from the lowest ranks of TMA, which she joined in 1987 as a Meteorological Assistant. She is the first woman in the East African Region to hold such a post and to be elected to the World Meteorological Organization (WMO) Executive Council in 2012 to date. She has actively contributed in the development and implementation of various WMO programmes, SADC - Meteorological Association of Southern Africa (MASA) where she is the current Vice Chairperson, East African Community (EAC), and in the African Ministerial Conference on Meteorology (AMCOMET). A desire to serve and help her country to better cope with the impact of extreme weather events, motivated Dr. Kijazi to join the undergraduate program in Bachelor of Science in Meteorology at the University of Nairobi which She completed in 2000, and went on to do a Master Degree in Environmental Science at the University of Cape Town in 2004. She earned her Doctorate in Meteorology at the University of Cape Town in 2008. Her career has brought her personal satisfaction, and great achievements to the National and Global Meteorology community including recent certification of TMA in the new ISO 9001:2015 in Aviation Meteorology, Tanzania being the third country in Africa to be certified ahead of the September 2018 deadline. Dr. Kijazi is married and Mother of three children.

Title: Data Availability, Exchange and Gaps: A Case Study of Tanzania

Abstract: Tanzania Meteorological Agency (TMA) is the designated authority for the provision of meteorological information and early warning services including alerts and advisories in the United Republic of Tanzania.

One of the functions of TMA include to observe, collect, archive and disseminate meteorological and related information and early warning services for the safety of life, protection of property and conservation of the natural environment to ensure sustainable development of the United Republic of Tanzania. In the fulfillment of this mandate, TMA has always engaged private sector whenever possible in support of the provision of weather and climate services and in line with the National Public Private Partnership (PPP) Policy which recognize the role of the engagement of private sector in the provision of efficient, reliable and affordable socio-economic services for sustainable development of the country. A number of private Institutions own rainfall observation stations that are integrated through the implementation of WMO Integrated Global Observing System (WIGOS) in country level. However, despite the ongoing and achievements made in meteorological data availability in the country, there are challenges which need to be addressed for better climate services. These include data rescue of the archived historical meteorological data, modernization of observation network, capacity building and enhancement of methods of data communication within and outside the country. In addition, in the engagement of private sector, TMA has set in place a coordination mechanism so that the process is done in a win-win situation, targeting peoples first, mutual benefit and according to the existing policies. Last but not least, there is a need for more engagement between public and private sectors for more collaboration rather than competition.

TATSUYA KIMURA (MR.)



Director of the Public Awareness and Partnerships Division of the Japan Meteorological Agency (JMA). His principal tasks are: the enhancement of public-private-academic collaboration, including the secretariat function of a new consortium called WXBC to jointly promote business that truly utilizes meteorological data; promotion and licensing of private meteorological services; and public-awareness raising activities in JMA. Prior to his appointment as present post, he served as Director of the Aeronautical Meteorology Division and Head of the Office of International Affairs at JMA.

Title: Data Availability, Exchange and Gaps: A Case Study of Tanzania

Abstract: My presentation briefly highlights JMA's efforts to increase socio-economic productivity in Japan, based on the mission given by the Meteorological Service Act of Japan, and in collaboration with the private and academic sectors. JMA actively promotes the sound development of private meteorological services and facilitates further advanced use of meteorological data by the private sector through a variety of initiatives, including public-private partnerships within a new consortium called WXBC.

FRANK ANNOR (MR.)



CEO of TAHMO. He supports the team in training, outreach, installation of Automatic Weather Stations, Database Management, business model development, supervision of modelling work and overall project management. Frank received his BSc. in Civil Engineering from the Kwame Nkrumah University of Science and Technology in Kumasi, Ghana where he has been lecturing since 2007, and his MSc in Water Resources Management with distinction from UNESCO-IHE in Delft, the Netherlands in 2007. He has over 15 years of work experience with hydro-meteorological modeling and data dissemination systems using GIS and Remote Sensing techniques as well as participatory approaches for data collection. He has been a principal investigator for the European Space Agency TIGER projects for the past 6 years. He is currently a postdoctoral researcher at the Delft University of Technology in Delft, the Netherlands.

Title: Present and future Public-Private Partnerships in support of weather observation networks in Africa

Abstract: The Trans-African Hydro-Meteorological Observatory (TAHMO, see: www.tahmo.org) seeks to build a dense network of 20,000 robust weather stations across sub-Saharan Africa to support governments and science. In cooperation with national hydro-meteorological agencies, TAHMO strives towards financial sustainability of the network. Public and private parties each have strengths that need to be leveraged to improve weather and climate observation in Africa (Public-Private Partnerships or PPPs). We share the findings of our Bellagio Conference, where representatives from national hydro-meteorological agencies, donors, and businesses met for one week to discuss possible PPPs. One interesting model that came up was the marketing of continental scale data and data-derived products by large international companies and the production of locally relevant information by national agencies. Other models were more modest and include the production of value added services for specific agricultural products, such as developed and presently operated by TAHMO and partners for cocoa farmers in Ghana. Not all hydro-meteorological agencies are comfortable with PPPs and this presentation aims to contribute to the early discussions on this topic.

DOMINIQUE LAPEYRE DE CHAVARDÈS (MR.)



President of Météorage, the lightning services company, since 2001. Has been involved during almost all his career in data policy, related partnerships, and in how to transform data into useful services. Within Spot Image, a subsidiary of the French space agency, operating earth observation satellites; in order to create a market, 95% international, for this new type of highly technological information, several partnerships were built with the private sector (agriculture, defense, image processing,...), start-ups and big players. The company has now been integrated in Airbus. Then within Météo France, with again a lot of partnerships built to develop the BtoB markets, some leading to new companies (Metnext with Euronext, Predict for flood management), some generating combined services (agriculture, water management, winter road maintenance,...). He is graduate from ESCP Europe business school.

Title: Data Availability, Exchange and Gaps: A Case Study of Tanzania

Abstract: Météorage is an exemplary case of successful Public Private Partnership in the field of meteorology, involving two major players of the field. Météorage operates its own network of high precision lightning detection over the main part of Europe, and elaborate tailored services to the various segments of users. Météo France and Vaisala are co-owners of the company, looking for a clear win-win situation. Météo France avoids the investment and running costs of a network of its own, and benefits of lower pricing for data services thanks to the sharing with a vast community of users. Vaisala secures a sustainable use of its sensors, and may demonstrate that its technology is the most popular in Europe. The situation is even win-win-win, with numerous both private and public entities becoming users in order to mitigate the impacts of lightning and thunderstorms on human safety and economic losses. Météo France is experienced in building partnerships with the private sector, some of them being able to materialize in venture companies, like Météorage, or Predict which is acting in the flood management; in most cases they lead to combined services, addressing very specific application, such as in agriculture, water utilities management, winter road maintenance, aviation,.. The main concept is that most customers -with significant exceptions- do not need weather information, not to speak of weather data, but decision making tool. Weather providers, whatever public

or private, have to move to enhanced value added, on their own as much as they can, and in partnership when relevant. Météorage is demonstrating that such an approach may be successful, the company expanded from France only to all Europe, with over 2500 subscribers to an annual service including several met services, and self-financed its growth; despite high investment costs, the business model is robust.

WILLIE MCCAIRNS (MBA FRMETS MR.)



Chief Executive. Willie McCairns has been ECOMET Chief Executive since 2012. ECOMET is an Economic Interest Grouping based in Brussels, with 27 Members, set up for the purpose of ensuring availability of meteorological data and products in accordance with European legislation (PSI, INSPIRE) and international standards. A key role is also liaison with the private sector. Prior to his appointment as Chief Executive, Willie McCairns worked for the UK Met Office as Deputy Head of the Public Weather Service programme. His responsibilities included monitoring performance of Programme including performance indicators related to public reach of warnings of severe weather. Prior to that he undertook several rolls within the Met Office including Corporate Risk manager, Quality Manager, Programme Manager of an ISO90001 and process re-engineering Programme and several account management positions dealing with Met Office customers in key sectors or regions.

Title: Data Availability, Exchange and Gaps: A Case Study of Tanzania

Abstract: ECOMET is an Economic Interest grouping based in Brussels. It was formed in December 1995, for the benefit of European National Meteorological and Hydrological Services. Its primary purpose is to try and ensure that meteorological data and products in Europe are made available under a level playing field between members and the private sector. A key role on carrying this out is the monitoring of European legislation to ensure compliance of its Members. ECOMET works on the principle of a “one stop shop”. Through the ECOMET Catalogue, Members display the data and products they have available. Third parties are then able to gain access to the data and products they require. This only requires a license with one ECOMET member. Another major role ECOMET plays is as a liaison and point of contact for the private sector. To understand their requirements, to facilitate access to ECOMET Members and to arbitrate to try and resolve any issues between members and third parties.

DENNIS SCHULZE (MR.)



Since 2015, Dennis Schulze is Chairman of the Board of PRIMET, the association of private weather companies in Europe and also Chairman of the corresponding national association in Germany. In this function he was engaged in several discussions about open data and a level playing field between public and private weather services. He also acted as a consultant to the German delegation to the WMO Congress and testified in hearings in the Federal German Parliament during the update of the law of the German National Meteorological Service. On the business side, Dennis Schulze is the Chief Meteorology Officer of MeteoGroup, Europe's largest private sector business. In this function he is responsible for maintaining and further developing the scientific foundation of MeteoGroup's activities and advising in large customer projects about the best use of meteorological information. He joined the business in 1993 starting his career working as a forecaster and in meteorological development before moving into management. Dennis studied meteorology at the Freie Universität Berlin.

Title: GWE Amsterdam Dennis Schulze

Abstract: Private meteorological service providers play a vital role in maximizing the socio-economic impact of weather data. They are often acting at the interface between National Meteorological Services and the public by providing information to media and consumers. In markets like marine and energy private meteorological services have developed a leading role in the supply of value added services. Innovative and flexible small and medium enterprises support the aim to make meteorological information usable for a large variety of use cases. Additionally, private providers have also developed capabilities to collect own observations, some of which are shared with public services. PRIMET is a pan European Trade Association for meteorological service providers operating in the private sector. It aims to promote a fair trading environment between the public and private sector in meteorology and its related disciplines. PRIMET provides the channel of communication between the private sector in Europe and key organisations, including WMO, ECOMET, EUMETSAT, ECMWF as well as the National Meteorological and Hydrological Services.