



ESMO Brief

The newsletter of the ESMO Project



Welcome to the 4th Issue of the ESMO Brief

Welcome to this new issue of the ESMO newsletter. As preparations for CMIP7 continue to gather pace, this issue highlights the collaborative efforts shaping the future of Earth system modelling and prediction. From the CMIP Community Workshop in Kyoto and the launch of the new WGCM Forum to updates on DCPD and the establishment of the new Subseasonal to Seasonal Prediction (S2SP) Panel, the ESMO community continues to strengthen the scientific coordination and partnerships needed to advance climate research across timescales.

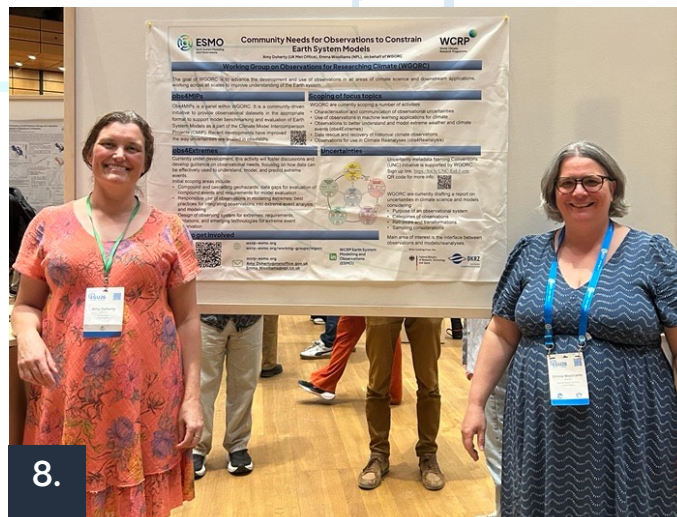
This issue also showcases progress in prediction science, data infrastructure, and capacity building. Highlights include the new APCC-hosted CHFP data service, developments in the Weather Prediction Model Intercomparison Project (WP-MIP), a report from the WCRP School on Climate Prediction Across Timescales in Buenos Aires, and new initiatives supporting seasonal drought prediction in South America. We also feature a review of a recent debate on the goals of science communication, alongside a science highlight introducing a unified interface for ocean carbonate chemistry data products.

Finally, you'll find opportunities to engage with the community through upcoming workshops and conferences, including the km-Scale Global Modelling Summit, the S2S2D Conference, and the WGNE Workshop on Systematic Errors in Weather and Earth System Models. We hope this issue keeps you informed, connected, and inspired by the breadth of activities taking place across ESMO. A sincere thank you to all our contributors for sharing their work and helping make this newsletter possible.

The ESMO Editorial Team



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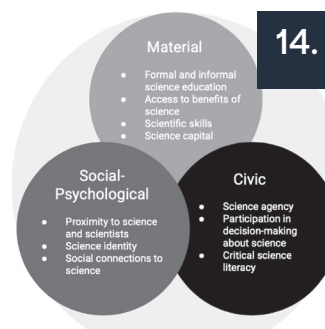
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Meeting Report

1. Looking Ahead to CMIP7: Highlights from the CMIP Community Workshop 2026

By Elisabeth Dingley

More than 430 in-person and over 200 virtual participants from around the world gathered at the Kyoto International Conference Center (ICC Kyoto) in Japan for the CMIP Community Workshop 2026. The venue notably hosted the COP3 negotiations that led to the Kyoto Protocol nearly 30 years ago. The meeting was co-chaired by Helene Hewitt (Met Office, UK) and John Dunne (NOAA-GFDL, USA), supported by international and local organising committees led by Masa Watanabe and Tomoki Miyakawa (University of Tokyo, Japan).

The five-day workshop featured a packed programme of plenaries, parallel sessions, side events, and poster sessions. Early Career Researchers (ECRs) made up around one third of in-person participants, with strong engagement through a dedicated Fresh Eyes on CMIP workshop.

In total, there were 99 oral presentations and 354 posters spanning Earth system modelling, bringing together data providers, users, and stakeholders. Side sessions covered topics including tools for model evaluation and data access, and inequities in the CMIP community.

Keynote presentations

The workshop was organised into three scientific themes:

- Progress in understanding historical climate variability and change
- Understanding climate system responses, feedbacks, and thresholds
- Synthesising information across the multiverse of models

Each theme featured two keynote speakers.

In Theme 1, Isla Simpson (NCAR) and Brian Soden (University of Miami) addressed discrepancies between observations and CMIP6 models, and a new method for calculating Effective Radiative Forcing



All the participants attending the CMIP Community Workshop in Kyoto, Japan.

from aerosol-cloud interactions.

Theme 2 included Jennifer Mecking (National Oceanography Centre), who presented on projected changes in Atlantic heat and freshwater transport and implications for AMOC weakening, and Irina Melnikova (National Institute for Environmental Studies), who discussed mechanisms of Amazon rainforest dieback in CMIP5 and CMIP6 models.

In Theme 3, Daisuke Takasuka (Tohoku University) demonstrated the benefits of km-scale models for analysing large-scale variability, and Jesus Fernandez (CSIC-Universidad de Cantabria) introduced developments in the CORDEX protocol in preparation for CMIP7.

Plenary sessions

Plenaries focused on CMIP's future direction. Helene Hewitt presented the CMIP7 experimental design and guiding research questions. Isla Simpson (NCAR) introduced the CMIP7 Assessment Fast Track, coordinated by the Strategic Ensemble Design Task Team (co-led with Ben Sanderson, CI-CERO). Tomoko Hasegawa (Ritsumeikan University) presented the CMIP7 scenario design from ScenarioMIP and its links to previous CMIP phases.

Community MIPs contributed through lightning talks and a dedicated poster showcase.

The final day explored a potential "CMIP Sustained Mode" and how CMIP could support coordinated

community analysis, with outcomes informing future planning by the CMIP IPO and Panel.

Early career researchers

The workshop featured a strong contingent of Early Career Researchers (ECRs), making up over one-third of all attendees. This was particularly highlighted during the ECR workshop on the Wednesday morning. This session, co-organised by Fresh Eyes on CMIP, featured presentations on ongoing Fresh Eyes activities, networking sessions, ice-breakers, and breakout group discussions, allowing attendees to interact across a range of backgrounds.

The breakout groups asked attendees to discuss how ECRs can have impact within the CMIP community, and what can be done to facilitate this. Group outcomes were verbally shared, with people highlighting the lack of dedicated CMIP funding can be a barrier for ECRs and well as the limited availability of shared platforms through which they can connect. It was particularly highlighted the additional burden these difficulties can place on researchers from the Global South and that gathering together in person plays an important role in career and community development.

2. WGCM Launches WGCM Forum at CMIP2026

On 11th of March, 2026, ESMO and WGCM organised the inaugural launch of the ESMO Working Group on Coupled Modelling (WGCM) Forum: Frontiers in Earth System Modelling, held during the CMIP Community Workshop in Kyoto, Japan. The aim of the initiative is simple: to bring together a wide range of representatives and practitioners from modelling centres across the global climate science community, and provide a dedicated platform for enhanced collaboration and knowledge exchange among model developers, users, and researchers worldwide. The format of the forum enables a large group of participants to be involved, free of membership limitations, and to raise important questions and actionable ideas that the WGCM panel can take on. The launch event itself was organised as a world cafe discussion, where the participants could take part in the conversation at one of 4 tables, each moderated by a WGCM panel member. There were 3 rounds of 40 minutes each, and participants switched tables in between the rounds. The full report, including the summary of the discussion at each table, can be found through [this link](#).



Bimo Niraula (ESMO IPO) relates the summary of the first Forum discussions at the CMIP Community Workshop 2026 in Kyoto (Picture: Fanny Adloff)



9-13
MARCH

641
ATTENDEES

SUPPORTING HYBRID ATTENDANCE



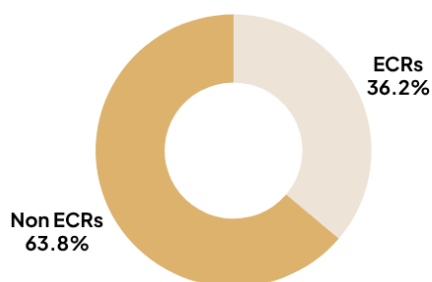
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INCLUDING THE NEXT GENERATION

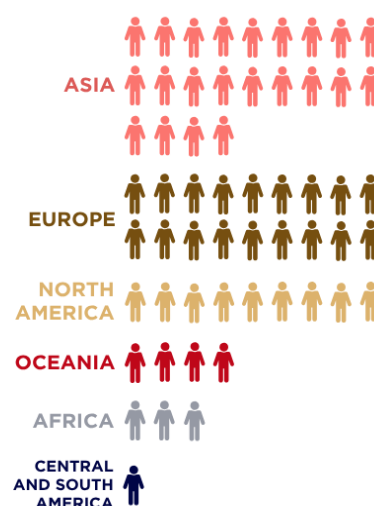


Over one-third of attendees at CMIP 2026 identified themselves as early career researchers.

AN INTERNATIONAL EVENT

We saw attendees join us from all six continents, with the largest contingent joining from Asia.

61
COUNTRIES
301
INSTITUTIONS



Each person icon in the figure represents approximately 13 attendees.

TOPICS EXPLORED BY OUR KEYNOTE SPEAKERS

Keynote speakers across the workshop covered a wide range of topics



CMIP7 development, plans and status update



CMIP7 user requirements



CMIP7 climate scenarios



Confronting models with observations



AMOC stability projections



CORDEX plans for CMIP7



Machine Learning in ESMs



Radiative forcing from aerosol-cloud interactions



Amazon rainforest tipping



Global km-scale modelling

354 POSTERS

9 SIDE SESSIONS

13 SCIENCE SESSIONS

99 ORALS

Coming Soon

3. 7th WGNE Workshop on Systematic Errors in Weather and Earth System Models

By Bimochan Niraula

The Working Group on Numerical Experimentation (WGNE) is organising a workshop on systematic errors in Weather and Earth System Models. It will be hosted by the Indian Institute of Tropical Meteorology (IITM), in Pune (India) on 15th-19th February, 2027.

Earth System Models (ESMs) are increasingly used for predictions ranging from days to centuries ahead. While advances in computing and machine learning have enabled more sophisticated models and improved forecast capabilities, persistent and emerging systematic errors continue to limit model performance. The workshop will focus on understanding the origins of these errors and identifying pathways for their reduction. A summary paper will be produced following the workshop to document key findings and highlight priority biases for future research.

We are currently accepting abstract submissions under one of six scientific themes, covering systematic errors in both physics-based and machine-learning-



Systematic Errors Workshop

ing-based models, including coupled and individual Earth system components. The six topics are:

- Diagnosing and Attributing Systematic Errors
- Scale Interactions and Resolution Transitions
- Deficiencies in Physical Parameterisation
- Coupled Earth System Feedbacks
- Impacts on Circulation, Variability, and Predictability
- Uncertainty and Ensembles

These topics invite contributions that help to increase understanding of the nature and cause of systematic errors in ESMs. In general, we are interested in abstracts on

systematic errors in physics based or machine learning based models, of all components of the Earth System including coupled and individual component models. Abstract submission is open until 31 July, 2026. Further information can be found in the [event's page on the ESMO website](#).



Project Update

4. The Weather Prediction Model Intercomparison Project: AI, Hybrid and Physical Model Models for Numerical Weather Prediction

By Ron McTaggart-Cowan, Linus Magnusson, Inna Polichtchouk, Duncan Ackerly, Martin Köhler and Barabara Casati

The Weather Prediction Model Intercomparison Project ([WP-MIP](#)) is a major WMO initiative involving nearly 150 researchers whose goal is to identify the strengths and weaknesses of AI, hybrid and physical models to support decision-making around the operationalization of the next-generation weather prediction systems. Proposed in late-2024 by the WMO Integrated Processes and Predictions System ([WIPPS](#)), WP-MIP is led by the Working Group on Numerical Experimentation ([WGNE](#)) and the Joint Working Group on Forecast Verification Research ([JWGFVR](#)), in collaboration with numerous other bodies across ESMO and the World Weather Research Program ([WWRP](#)).

The project focuses on medium-range predictions from the global deterministic models that are currently under development at national meteorological and hydrological services around the world. Retrospective 10-day predictions from these models for 2024 are available to the community through an [open archive](#) hosted by Environment and Climate Change Canada in a standard, readily accessible format. With nearly 40 contributions, the WP-MIP forecasts are a rich resource for evaluation of operational and experimental models that opens the door to development of new verification techniques suitable for assessing and comparing AI, hybrid and physical models.

A WP-MIP Special Collection has been created by the American Meteorological Society (AMS) for publication in AMS journal, beginning with the proj-

ect overview paper that is currently under review ([McTaggart-Cowan et al. 2026](#)). Online project meetings are held at 6-weekly intervals, with quick-look contributions from project members providing regular updates on progress across verification teams. An important short-term outcome is the WIPPS AI Technical Guidance for Short- and Medium-Range Predictions, an updatable knowledge base that will be under active development throughout the summer of 2026. Consistent with the WMO's Early Warnings for All ([EW4All](#)) initiative, this guidance

aims to assist decision-makers who are formulating strategies, making investments and managing the integration of AI-based systems into operational workflows across the full range of national meteorological and hydrological services.



WP-MIP
AI / Physical / Hybrid Forecasts

Looking to the future, the WMO's Joint Advisory Group on AI (JAG-AI) recommended the extension of WP-MIP to ensembles, an important enlargement of scope that would reinforce connections with the [Bridging the Gap](#) project. As progress on AI-ready evaluation techniques continues within WP-MIP, WGNE will discuss future iterations of the project this fall to ensure that it remains well aligned to current progress in model development. The WP-MIP team is looking forward to meeting these challenges and to helping to provide the operational community with the best possible guidance in the rapidly evolving weather-prediction landscape.

Project Update

5. CHFP data service now hosted at APCC

By Debbie Hudson, Jin Ho Yoo, Bill Merryfield

The Climate-system Historical Forecast Project (CHFP), an international initiative of the Working Group on Subseasonal to Interdecadal Prediction (WGSIP), has entered a new phase with the migration of its data service from the Centro de Investigaciones del Mar y la Atmósfera (CIMA, Argentina) to the APEC Climate Center (APCC, Republic of Korea).

The CHFP database provides a unique, long-standing resource for seasonal prediction research, bringing together historical (hindcast) forecasts from coupled Earth system models. These datasets en-

able the community to better understand sources of predictability across the climate system, and to evaluate multi-model ensemble performance under consistent experimental frameworks.

The new APCC-hosted platform preserves the original CHFP archive while also integrating hindcast data from operational forecasting systems contributing to the WMO Lead Centre for Seasonal Prediction Multi-Model Ensemble (LC-SPMME), with agreement from Global Producing Centres. By co-hosting these complementary datasets, the portal offers a valuable reference for exploring the evolution of seasonal forecasting systems, their performance and the approaches underpinning them over time.

The CHFP database has its origins in early WCRP efforts to develop a coordinated “total climate system” seasonal prediction experiment, and has played a key role in bridging research and operational communities. Its standardised structure and open data approach have supported a wide range of studies on predictability, model development and seasonal forecasting.

The new service is expected to further enhance accessibility and usability for the global research community. The portal is accessible via the APCC [web-site](#).

We thank WGSIP, and in particular Jin-Ho and Mari-sol, for their hard work in delivering this transition, and we look forward to the continued support and use of the CHFP database for the benefit of the global scientific community.

6. DCPD Updates for CMIP7

DCPD is coordinating a contribution to the CMIP7 Assessment Fast Track to support upcoming climate assessments, including IPCC AR7. This will provide a 10-year, 10-member initialized forecast from 2025 initial conditions, using CMIP6-era prediction systems, SSP2-4.5 forcings, and existing DCPD-A hindcasts for drift correction and calibration. In parallel, DCPD is also developing the full experimental protocol for CMIP7 as part of the Community MIPs. As in CMIP6, this will have a modular design covering hindcasts, real-time predictions, and process experiments. Draft DCPD-A and DCPD-B protocols are being prepared and will soon be shared [on the website](#).



DCPD

**Decadal Climate
Prediction Project**

7. New Subseasonal to Seasonal Prediction Panel (S2SP) established

By Bimochan Niraula and Debbie Hudson

This year a new panel will join the ESMO family: the Subseasonal to Seasonal Prediction Panel (S2SP). The panel will sit under the Working Group on Subseasonal to Interdecadal Prediction (WGSIP) and help advance scientific understanding and improve predictive capability on subseasonal to seasonal (S2S) timescales. It is chaired by Yuhei Takaya, from MRI JMA, and Jadwiga (Yaga) Richter, from NSF NCAR. The open call for new members to join the panel recently concluded and the co-chairs are going through the many talented applicants to finalise the panel members.

The S2SP Panel aims to facilitate international research collaboration and coordination to sustain and advance S2S predictability and prediction studies within the WCRP framework. The members will help design and coordinate S2S prediction (including retrospective experiments), in conjunction with the seasonal prediction and climate modelling com-

munities. Alongside, they will also promote integration of Earth system components and enhance collaboration between modelling, observational, and applications communities and support the advancement of methodologies, tools, and community activities that contribute to improved S2S forecast skill and usability.

The S2SP Panel will operate under WGSIP, within WCRP/ESMO. ESMO oversees and advances modeling, data assimilation, and observational activities across WCRP. It spans all Earth system components, disciplines, and scales, and comprises several Working Groups. The S2SP Panel will collaborate closely with other WCRP projects and will maintain strategic links with relevant groups in the WMO community. In particular, it will complement, and work closely with, the more application-focused WCRP Sub-seasonal Applications for Agriculture and Environment (SAGE) project. We are all looking forward to the activities of the S2SP Panel in the coming years.

Meeting Report

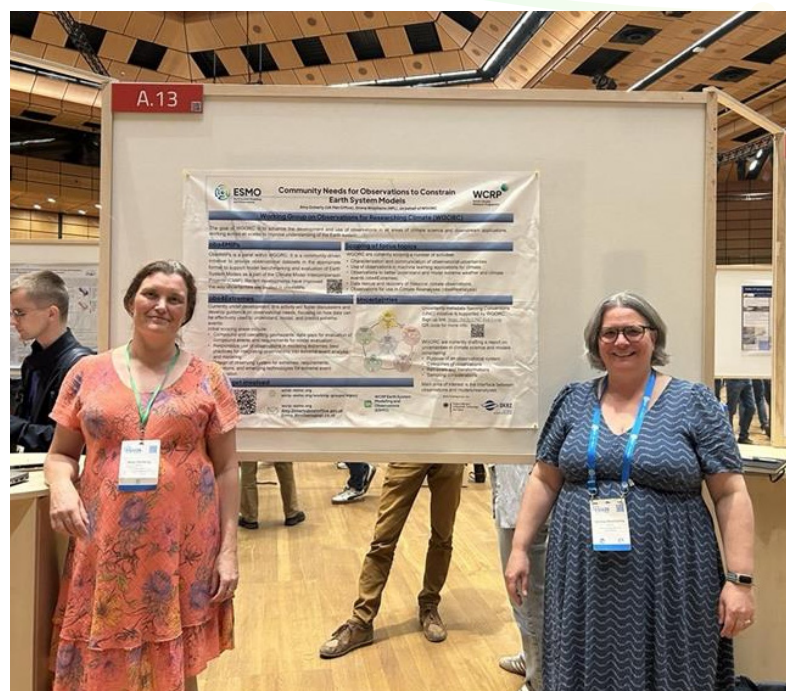
8. WGORC presented at EGU26

By Amy Doherty and Emma Woolliams

In May 2026 Amy Doherty and Emma Woolliams attended EGU26 in Vienna, presenting a poster on behalf of WGORC. The poster introduced WGORC and invited engagement from anyone working in climate science who uses or produces observations. During the poster session we talked to many users, understanding their requirements and challenges when interacting with observational datasets.

Key challenges that were mentioned around climate observations:

- Data accessibility/open data policies
- Uncertainty characterisation
- Poor coverage of in situ data in the global south
- Funding for observational networks



Overall it was an excellent conference with many opportunities to engage with observational data users and providers and raise awareness of the working group to encourage applications when our panels and task teams are put in place.



Capacity Building

9. Building Climate Prediction Skills Across Timescales

By Bimochan Niraula, Debbie Hudson, Bill Merryfield

The WCRP School on Climate Prediction Across Timescales was held from 23–27 February at the University of Buenos Aires. The school was organised by the Working Group on Subseasonal to Interdecadal Prediction (WGSIP) and ESMO, in parallel with the WGSIP Annual Meeting. It brought together approximately 30 participants, including graduate students, postdoctoral researchers, early-career scientists, and professionals working in climate services and operational prediction from home institutions across South America, Africa, Europe, North America, and south and southeast Asia.

The school addressed key knowledge and skills gaps in climate prediction across sub-seasonal, seasonal, decadal, and longer timescales. Forecasts across these timescales have a wide range of applications in climate services, including disaster preparedness, risk management, and short-, medium-, and long-term planning. However, the methods used to produce, evaluate, interpret, and combine such forecasts are often complex. The programme therefore aimed to strengthen participants' understanding of predictability, forecast skill, uncertainty assessment, sources of predictability, and cross-timescale interactions.

The five-day programme combined foundational and advanced lectures with interactive, hands-on laboratory sessions. Several WGSIP members contributed as instructors, delivering lectures and leading practical exercises. The school also placed strong emphasis on applied learning, with participants working with real climate prediction datasets and Python notebooks rather than synthetic examples.

Participants engaged in group discussions, applied exercises, and mini-projects that brought together the concepts and tools introduced during the week. These mini-projects provided an opportunity to apply newly acquired knowledge to specific prediction problems and for collaboration with peers. At the conclusion of the school, participants presented their results, demonstrating both technical progress and the ability to communicate findings clearly.

The school was hosted and supported by the Universidad de Buenos Aires; CONICET – Universidad de Buenos Aires; the Centro de Investigaciones del Mar y la Atmósfera (CIMA); and the Instituto Franco-Argentino de Estudios sobre el Clima y sus Impactos (IFAECI). Additional support was provided by the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste. A special shout-out to



**WCRP School on
Climate
Prediction Across
Timescales**

Marisol, our host and local organiser, who made sure everything ran very smoothly!

Overall, the School on Climate Prediction Across Timescales made a strong contribution to capacity building in climate prediction science and applications. Feedback from participants was overwhelm-

ingly positive, particularly on the combination of lectures, hands-on training, real datasets, and opportunities for discussion. The school provided early-career researchers and climate service professionals with new theoretical understanding, practical skills, and professional connections to support their future work in climate prediction and climate services.



10. Road to S2S2D 2026

By Bimochan Niraula

The third International Conference on Subseasonal to Seasonal to Decadal Prediction (S2S2D) is taking place at the University of Reading (UK) from 7-11 September 2026, with the theme of “Advancing climate predictions from weeks to decades to benefit society”.

S2S2D 2026 will bring together researchers, operational providers and users from around the world to share and discuss the latest advances and future opportunities in Earth system prediction science. The program will be structured around two parallel sub-conferences focusing on the subseasonal-to-seasonal and seasonal-to-decadal prediction horizons respectively, alongside joint plenary sessions addressing cross-cutting themes. Core topics include climate services across timescales; predict-

S2S2D 2026

ability and prediction skill; physics-based prediction systems; and emerging machine learning approaches in S2S2D.

The conference has sparked strong international interest, with almost 500 abstracts submitted. The resulting program includes 42 plenary talks, 96 oral presentations and around 250 posters showcasing contributions from across the international S2S2D community. Support has also been provided to certain participants to help offset access barriers and encourage broad participation.

Registrations are now closed but you can check the full programme on the [conference website](#), alongside further information.

Meeting Report

11. Seasonal drought forecasting comes to western South America: the XXV WCSACOF and a first-ever Climate Predictability Tool+ and CPT-DM training

By Ángel G. Muñoz

In May 2026, Bogotá hosted the XXV Regional Climate Outlook Forum for Western Coast of South America (WCSACOF), coordinated by the International Research Centre on El Niño (CIIFEN) and held at IDEAM's headquarters. The forum brought together meteorologists and climatologists from the national hydrometeorological services (NMHSs) of Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela, and Panama, to analyse current climate conditions and produce a regional seasonal outlook for the coming trimester.

Following the forum, Dr Ángel G. Muñoz (WGSIP Co-Chair) led a three-day technical training workshop under the ARAUCLIMA - Sequías-ANDES project, funded by the Spanish Agency for International Development Cooperation (AECID). The workshop focused on the generation, verification and evaluation of probabilistic seasonal drought forecasts using the latest version of the Climate Predictability Tool (CPT+), with particular emphasis on the Standardised Precipitation-Evapotranspiration Index (SPEI) as the target predictand.

Participants worked through the full NextGen forecasting pipeline – NextGen being the so-called Next-Generation methodology following WMO guidelines focusing on demand-driven and objective forecasting across timescale. The workshop covered the complete workflow from physical and statistical foundations and predictability source identification, through data preparation using gridded observations, reanalysis and climate models, to

ensemble construction and probabilistic forecast generation in tercile and flexible format. The model assessment block covered both model validation methods and forecast verification, detailing when to use each metric depending on the actual user demand.

For the first time, participants used both [CPT+](#) and [CPT-DM](#) – an open-source command-line tool – to automate the acquisition and formatting of climate datasets for direct ingestion into CPT. This marked a significant step towards reproducible, pipeline-driven seasonal forecasting workflows at NMHS level across the region. The introduction of CPT-DM is particularly timely: as the IRI Data Library transitions away from its long-standing data services, CPT-DM offers the community a modern alternative for accessing and pre-processing the datasets that underpin operational seasonal forecasting.

The workshop is part of a broader capacity-building programme that CIIFEN is leading to strengthen climate prediction and services more generally in the region, and also part of a new SPEI NextGen prediction system for the region, already available at [CIIFEN's website](#). A post-training virtual session is planned to consolidate results and define next steps for each participating country.



Picture credits: CIIFEN



km-Scale

GLOBAL MODELLING SUMMIT 2026

Coming Soon

12. km-Scale Global Modelling Summit 2026: 20-24 July 2026, Hamburg, Germany

The km-Scale Global Modelling Summit 2026 will bring together the international Earth system modelling community to assess recent scientific and technical advances in kilometre-scale global Earth system models and to define future research priorities. Organized by WarmWorld and partner projects, the meeting will convene experts in modelling, observations, high-performance computing, artificial intelligence, and climate applications. The summit aims to strengthen collaboration across disciplines and accelerate progress toward the next generation of physically based, exascale-ready Earth system models.

Programme highlights

The programme focuses on the opportunities and challenges arising from km-scale Earth system modelling, including:

- Technical challenges in modelling and computing, such as emerging hardware architectures, programming paradigms, data structures, model interoperability, and benchmarking.

- Artificial intelligence for Earth system science, covering emulation, generative approaches, data compression, analysis workflows, and AI-assisted modelling.
- Representation of km-scale processes and their influence on the Earth system, including scientific benchmarking, emergent phenomena, and pathways toward hectometre-scale simulations.
- Impacts of km-scale processes on human systems, with topics such as weather and climate extremes, complex terrain, and energy infrastructure.
- Synergies between simulations and observations, including future observing systems and improved representation of coupled Earth system processes.

The summit will also feature keynote lectures from leading researchers in climate science, high-performance computing, and AI, alongside invited talks and community discussions aimed at developing a coordinated international research agenda for the coming years. A pre-summit hackathon (16-18 July) will focus on standards, data workflows, coordinated simulations, and community tools for km-scale modelling.

Visit the [event webpage](#) for more information.

Paper Highlights

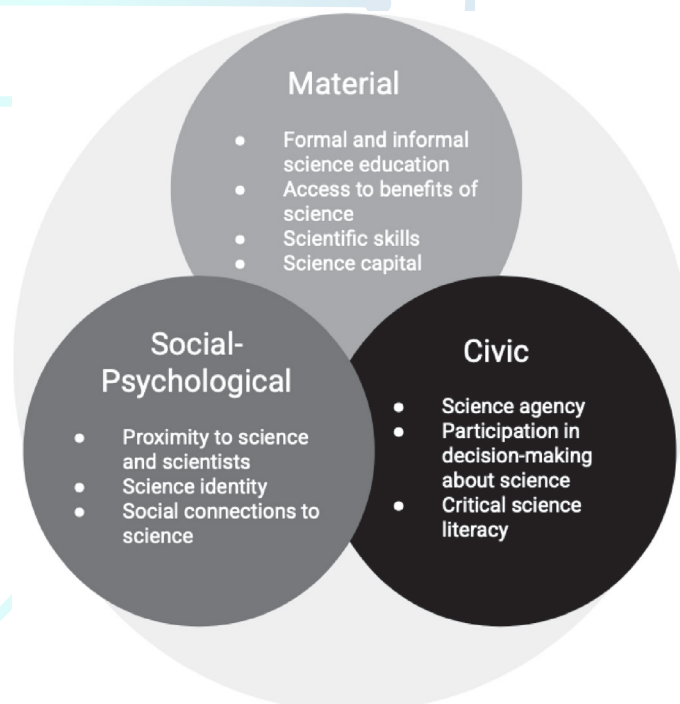
14. Does science communication have its goals wrong?

By Sara Pasqualetto

A commentary published in the *Journal of Science Communication* argues for a fundamental shift in how science communication is understood and practiced: away from a primary focus on persuading the public to accept scientific facts and values, and towards fostering *scientific empowerment* (Toomey & Elliott, 2026).

Toomey and Elliott contend that science communication strategies centred on persuasion and convincing audiences of the value of research have important limitations. Drawing on examples from the literature, particularly in medicine and climate science, they note that communication efforts aimed at transferring knowledge to sceptical audiences often fail to achieve their intended outcomes and may even reinforce resistance. Because scepticism is frequently rooted in broader values and world-views rather than a lack of information, the authors propose reframing science communication as scientific empowerment, defined as equipping people "to understand and use science accurately and effectively in pursuit of individual and collective goals." They describe scientific empowerment as comprising three interconnected dimensions. The *material* dimension involves access to scientific education, resources, and opportunities to develop scientific skills. The *socio-psychological* dimension concerns experiencing and participating in science as part of a community. The *civic* dimension focuses on enabling people to use scientific knowledge to engage in public deliberation and decision-making. According to the authors, this approach can also help people resist disinformation and conspiracy theories by strengthening their capacity to critically engage with scientific information.

A response article published in the same journal challenges the implication that persuasion should play a lesser role in science communication (Besley et al., 2026). The authors argue that the field would benefit from greater engagement with persuasion



Dimensions of scientific empowerment (Toomey & Elliot, 2026)

research, emphasizing that persuasion encompasses a much broader set of objectives than simply convincing people to adopt scientists' recommendations. For example, persuasion may aim to encourage audiences to seriously consider scientific advice or to deliberate more carefully about evidence.

Besley and colleagues further argue that persuasion research offers valuable insights for science communication practice. They highlight evidence showing that communication is more effective when it addresses the perceived benefits, feasibility, and acceptability of recommended actions, and they stress that meaningful behavioural change typically requires sustained communication efforts rather than one-off interventions. From this perspective, they suggest that persuasion remains an essential component of science communication and should be informed by, rather than contrasted with, approaches that seek to empower audiences.

Toomey, A., & Elliott, K. C. (2026). *Does science communication have its goals wrong? From persuading science skeptics to promoting scientific empowerment*. JCOM 25(1), C07. [DOI](#)

Besley, J. C., Yeo, S. K., Dudo, A., & Yuan, S. (2026). A response to: "Does science communication have its goals wrong? From persuading science skeptics to promoting scientific empowerment" – A defense of certain types of persuasion. JCOM 25(4), L01. [DOI](#)

15. Upcoming meetings and conferences

As part of our commitment to keeping the Earth system modelling and observations community informed, we've compiled a list of key meetings and conferences scheduled in the coming months. Whether your focus is on numerical modelling, data assimilation, observational techniques, or interdisciplinary approaches, these gatherings provide platforms to engage with peers, discuss emerging challenges, and contribute to shaping the future of our field.

Explore the list below to identify the events that align with your interests and mark your calendars for a productive and inspiring year ahead!

July 2026

20-31 July 2026: [Rossbypalooza](#) - Chicago, IL, USA

20-24 July 2026: [km-scale Global Modelling Summit 2026](#) - Hamburg, Germany

August 2026

12-14 August 2026: [1st International Symposium on Earth System Modelling 2026](#) - Jatiúca, Maceió, Brazil

31 August - 3 September 2026: [8th WMO Symposium on Data Assimilation & 12th International Symposium on Data Assimilation](#) - Nanjing University International Conference Centre, Nanjing, China

September 2026

06-11 September 2026: [EMS Annual Meeting 2026](#) - Utrecht, the Netherlands

07-11 September 2026: [S2S2D Conference 2026: Advancing Climate Predictions from Weeks to Decades to Benefit Society](#) - Reading, UK

October 2026

12-16 October 2026: [APARC General Assembly 2026](#) - Pune, India

26-30 October 2026: [2nd Workshop on Organisation and Maintenance of Tropical Convection and the Madden Julian Oscillation](#) - Trieste, Italy

December 2026

07-11 December 2026: [AGU Annual Meeting](#) - San Francisco, CA, USA

February 2027

15-19 February 2027: [WGNE workshop on systematic errors in weather and climate models 2027](#) - Pune, India



= ESMO session planned or event (co-)organized by ESMO



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About ESMO

The Earth System Modelling and Observations (ESMO) core project coordinates, advances, and facilitates all modelling, data assimilation and observational activities within WCRP. Website: wcrp-esmo.org

Editing and design

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