



INDEX

Miami: CAE at HydrometLAC	PAG. 1
Italian and international river basin authorities compared	PAG. 3
Innovation: Datalife Platform	PAG. 7
Apulia: CAE is awarded the maintenance contract for the regional hydro-agrometeorological network	PAG. 9
Apulia: maintenance of the landslide and sinkhole monitoring network	PAG. 12

Miami: CAE at HydrometLAC

From May 13th to 15th **CAE** was among the exhibitors at **HydrometLAC** in Miami - USA. The event serves as a crucial platform to enhance regional resilience in both the **Latin American** and **Caribbean** region, protect communities from the impacts of climate variability and find ways to address the unique challenges the regions face.

The agenda for this symposium is based on research Varysian has conducted into the hydromet community from across the region, as well as high-level focus groups consisting of representatives from national meteorological and hydrological services (NHMS's), technology providers, academia and financial bodies.

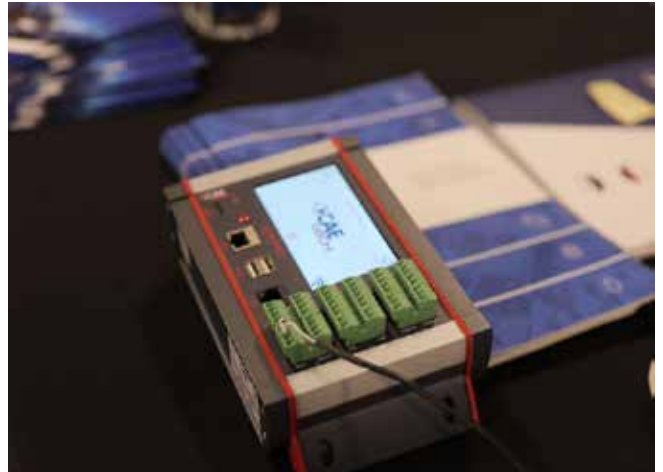
This event aims to create long-lasting connections which bolster efforts against the effects of climate change and weather-related disasters and each participant plays a pivotal role in shaping the future of hydrometeorological resilience.

On May 13th Alberto Bertocco, International Account Manager





of CAE, held a speech entitled: **Multi-Hazard Monitoring and Early Warning Systems: Technologies and Good Practices.** *"In a time of climate change, natural disasters are harder and more frequent than ever. We are supporting the evolution of traditional monitoring systems into Multi-Ha-*



zard Early Warning Systems. The presentation highlighted available technology to support the transition and to ensure reliability."

It was an important opportunity for networking and to understand the needs of many National Hydrometeorological Services involved. ■



BACK TO INDEX

Italian and international river basin authorities compared

Le Autorità di bacino italiane ed INBO si confrontano: le Best Practices nei diversi paesi per la pianificazione ed applicazione delle direttive comunitarie

ADBPO
Autorità di Bacino distrettuale del Fiume Po

EURO INBO

CAE
innovation for a safer world

Parma
19 Maggio 2025 ore 15:30 - 17:30
Palazzo del Governatore, Piazza Garibaldi

ATTUAZIONE DELLA DIRETTIVA UE SULLE ACQUE (WFD) A LIVELLO DI BACINI NAZIONALI E TRANSFRONTALIERI: BENEFICI DELLA GESTIONE INTEGRATA DI ACQUA, ENERGIA, CIBO ED ECOSISTEMI

Angelo Martinelli
Dir. Divisione V/ Uso Sostenibile delle Risorse Idriche e sviluppo delle iniziative globali in materia di acque, Ministero dell'Ambiente e della Sicurezza Energetica (MASE)
RELAZIONE DELLA COMMISSIONE AL CONSIGLIO E AL PARLAMENTO EUROPEO sull'attuazione della direttiva quadro sulle acque (2000/60/CE) e delle direttive sulle alluvioni (2007/60/CE) - Terzo piano di gestione dei bacini idrografici - Secondo piano di gestione del rischio di alluvione

Silvano Pecora
Dir. Divisione IV - Governance del bacino e coordinamento delle autorità di bacino distrettuali, Ministero dell'Ambiente e della Sicurezza Energetica (MASE)
Progetto SIM per il monitoraggio

Eric Tardieu
Segretario Generale, International Network of Basin Organizations (INBO)
La situazione europea

TAVOLA ROTONDA
Andrea Caverszili - moderatore
Giornalista, Responsabile delle relazioni istituzionali, Autorità di bacino distrettuale del Fiume Po

INBO
MENGO
Autorità di Bacino distrettuale del Fiume Po
Autorità di Bacino dell'Appennino Centrale
Autorità di Bacino dell'Appennino Settentrionale
Autorità di Bacino delle Alpi orientali
Agenzia Regionale del Distretto idrografico della Sardegna

PRESENTAZIONE DEL PROGETTO LIFE CLIMAX PO (CLIMate Adaptation for the PO river basin district)

Autorità ospitanti: ADBPO, Comune di Parma

Partner: République Française, OFB

Partner del workshop sulla resilienza idrica e sugli ecosistemi: UNESCO

Con il patrocinio di: Regione Lombardia, Regione Piemonte, Regione Emilia-Romagna, Regione Toscana, Regione Marche, Regione Umbria, Regione Lazio, Regione Abruzzo, Regione Molise, Regione Basilicata, Regione Puglia, Regione Campania, Regione Sicilia, Regione Calabria, Regione Liguria, Regione Veneto, Regione Friuli Venezia Giulia, Regione Trentino-Alto Adige, Regione Valle d'Aosta, Regione Piemonte, Regione Lombardia, Regione Emilia-Romagna, Regione Toscana, Regione Marche, Regione Umbria, Regione Lazio, Regione Abruzzo, Regione Molise, Regione Basilicata, Regione Puglia, Regione Campania, Regione Sicilia, Regione Calabria, Regione Liguria, Regione Veneto, Regione Friuli Venezia Giulia, Regione Trentino-Alto Adige, Regione Valle d'Aosta

Con il patrocinio di: AIPO, AIPO, UTILITALIA

From 19 to 23 May, Parma was International Water Capital 2025 because of the rich calendar of official events scheduled within **Euro-INBO 2025**, the twenty-second edition of the travelling event. This year it was organised in Italy thanks to the direct commitment of the **Po River Basin District Authority (ADBPO)** in synergy with the **Parma City Council Administration** and the **Ministry for the Environment and Energy Security (MASE)** in partnership with the **French Republic**, the **French Office for Biodiversity (OFB)** and the **United Nations Educational, Scientific and Cultural Organisation (UNESCO)**. The annual event brings together top international experts on the subject

of water resources, and to which hundreds of experts have come to the capital of Emilia from all over the world to discuss the present and future of water on the planet and in the European Union from multiple perspectives.

Representatives of EU Member States, national, regional and local water directorates and administrations, river basin district authorities and organisations, and more generally stakeholders involved in river basin management, exchanged experiences on implementing the Water Framework Directive (WFD), its "Daughter Directives", and other related policies, directives and regulations. The conference was also open to delegates



from EU candidate countries, Eastern Europe, the Balkans, the Caucasus and Central Asia, as well as neighbouring countries interested in EU policies, tools and methodologies for planning integrated water resources management (IWRM) at the river basin level. Given the **centrality of the water resource in social economic and environmental balances**, this event had the fundamental aim of creating a mutual exchange and fruitful di-

scussion capable of integrating global perspectives and knowledge with repercussions, including local ones.

5 main topics were addressed during the event:

- Towards a more efficient water resource use in agriculture, for greater resilience to support food security.
- Climate change adaptation: how to improve flood risk prevention and management?



- Climate change adaptation: how to prevent and improve drought management?
- Towards good ecological status of water: combating emerging pollutants and innovative solutions.
- Restoring rivers for people and biodiversity. Synergies with DQA.

The event opened **at 3 p.m. on 19 May**, at the **Governor's Palace**, Piazza Garibaldi, with the *full immersion* work of the first introductory session. The **Italian Basin Authorities and INBO discussed** the following topics:

- Best Practices in different countries for planning and implementing the EU directives;
- Implementing the EU Water Framework Directive (WFD) at the national and cross-border basin level: benefits of integrated water, energy, food and ecosystem management.

The host **Alessandro Bratti**, Secretary General of ADBPO, opened the focus with a speech on the fundamental role water resources play in the

social, economic and environmental balance of community life, and in particular in the Po River district.

The following speakers, moderated by journalist **Andrea Gavazzoli**, were: INBO Secretary General **Eric Tardieu**, who reported on the current resource management context in Europe, illustrating updates and common perspectives; for the MASE, **Angiolo Martinelli**, who detailed the topic of applying EU directives, while **Silvano Pecora** presented the SIM project, a sophisticated and useful innovative monitoring programme implemented with PNRR funds.

This was followed by a round table moderated by journalist **Andrea Gavazzoli**, at which, in addition to INBO representatives, Italian and international Basin Authorities spoke: **Costantino Azzena**, Director General of the Regional Agency of the Hydrographic District of Sardinia; **Gaia Checcucci**, Secretary General of the Northern Apennines District Basin Authority; **Donato Sollitto**, Technical



Officer of the Southern Apennines District Basin Authority; **Miguel Polo Cebellán**, President of MENBO (Mediterranean Network of Basin Organisations).

The meeting was also attended by entrepreneur **Guido Bernardi**, Chairman of **CAE S.p.A.**, a leading company in developing advanced systems for monitoring climatic weather events, and a partner in the event, who spoke on the potential technology offers in preventing phenomena.

In closing, the speech by **Francesco Tornatore**, ADBPO manager, who illustrated **Life Climax Po**, a project that promotes climate change adaptation through intelligent water resource management in the Po River basin district by implementing the

measures of the national climate change adaptation strategy, adapted to local characteristics and climatic peculiarities on a district scale.

At the end of the three-day “Euro-INBO” with more than 300 participants in total, **Alessandro Bratti was appointed the new Coordinator General of the International Network of Basin Organisations (INBO)**. He will leave his role as Secretary General of the Po River Basin District Authority (MASE) to take over as leader of the international organisation that promotes and supports implementation of integrated water resource management in national and cross-border river basins, lakes and aquifers. We congratulate Dr Bratti on this important milestone and wish him all the best in his work! ■



[BACK TO INDEX](#)

Innovation: Datalife Platform

In September we launched it at the Meteorological Technology World Expo in Vienna and it was a great success among all visitors, today the Datalife Platform is ready to go into action at 100% in our customers' operating centers.

DATALIFE PLATFORM is an open, configurable information system, a **unique** and **comprehensive tool that allows users to manage every detail of monitoring networks and the measurement databases they generate**. It's a **modular, intuitive** and **user-friendly** product.

It facilitates the understanding of ongoing events, supporting the Administration in managing risk situations and also in the dissemination of alerts. It allows you to validate, store and publish historical series. It also makes all data and metadata

available through simple and secure REST web services.

Access to the new platform occurs through a **Single Sign On authentication**: an authentication process that allows the CAE platform user to access multiple modules with a single set of credentials. The DATALIFE PLATFORM **web platform** is designed to ensure an easily usable, efficient, scalable, reliable, robust central unit. Furthermore, it is among the specialized platforms present in the sector of hydrometeorological monitoring systems for civil protection purposes that guarantees the highest level of IT security, being periodically subjected to **Vulnerability Assessment and Penetration Test through OWASP tools**.

Here are some more details on the main modules.



FORESIDE is an open supervision and control system, designed to **configure** and **manage networks** of stations in complete autonomy. The interface is designed to meet all the needs of an user, in full compliance with openness and accessibility criteria.

AEGIS allows you to **view** in real time, even at a **geo-spatial** level, territorial information and from field sensors, in particular:

- all stations of the network represented on 2D maps;
- different overlapping geographic information layers that can be imported in open formats such as WMS (Web Map Service);
- all stations in a tabular representation, accompanied by photographic images;
- all elements, i.e. the sensor network, by means of a list;
- the graphical representation of the performance of one or more elements of the network.

Thanks to the "Slide show" function, it is also possible to view the evolution of the situation over a selected period of time in relation to public area information, such as forecasts or radar images.

These features are enriched by reporting features such as: the ability to apply filters, summary pa-

ges, export functionality in standard CSV format.

DETECTIVE autonomously **analyzes** and **validates millions of data per day**, determines their **quality**, detects **anomalies** and creates **reports** on the functioning of the network.

The types of checks performed are multiple: logical, of temporal consistency, cross-referenced with other quantities of the same station and cross-referenced with other stations, etc. and allow to offer an increasingly precise and punctual service.

SENTRY is designed to **manage alerts** using the **standard CAP format**. The software disseminates alerts following the exceeding of thresholds set by the Administration, through various means of communication. Sentry is equipped with a reporting system intended to track the operation of the software, events, the forwarding of alarm notification and much more besides.

JOURNAL: allows you to dynamically create statistical reports of a monitoring network, **Hydrological and Meteorological Annals**.

DATALIFE PLATFORM is made up of various modules and is continuously updated to constantly improve its functionality in response to the most specific users' needs. ■

[BACK TO INDEX](#)

Apulia: CAE is awarded the maintenance contract for the regional hydro-agrometeorological network

CAE started working in Apulia with the fire monitoring system, and won the tender for the three-year maintenance and management service for the hydro-agrometeorological monitoring network managed by the Decentralised Functional Centre, called by the Apulia Region, Civil Protection and the Civil Protection Section of the Emergency Management Department.

The Decentralised Functional Centre carries out activities to collect, concentrate, process, archive, validate and publish data collected in the region through the meteo-hydrometric monitoring network, a responsibility inherited from the Bari Hydrographic and Mareographic Office for ca-

tachment areas with outlets on the Adriatic and Ionian coasts, from Candelaro to Lato. The **remote monitoring network** is capable of acquiring **temperature/rainfall measurements and anemometric, hydrometric, solar radiation and relative humidity data** in real-time. It currently consists of **219 real-time stations** created from 1917 by the Autonomous Section of the Civil Engineers and transferred to the Apulia Region with the responsibilities of the former Bari Hydrographic and Mareographic Office. The aforementioned monitoring network was supplemented in the Apulia Region by the **agrometeorological network** consisting of a further **84 stations**.





The hydrometric/rainfall stations distributed throughout the region make it possible to:

- during events: prepare semi-quantitative analyses and start modelling to assess the hydrological and hydraulic response of Apulia's catchment areas when events are taking place;
- in deferred time: provide a meteo-hydrometric description of the event and publish an event report.

The Decentralised Functional Centre enhances and technologically updates operation, monitoring of measured data reliability, and routine and extraordinary maintenance, which will be the responsibility of





CAE for the next three years. The service will be offered in such a way as to guarantee the performance of all the services and actions necessary to ensure the equipment is operating at maximum efficiency and guarantee its continuity, both in terms of data quality and real-time data acquisition.

During the contract, CAE also undertakes **to technologically upgrade obsolete devices, increase operating performance and data capture rates, and enhance cybersecurity.**

The services offered include:

- **preventive maintenance:** three scheduled maintenance cycles in the field and in the station per year;
- **corrective maintenance:** to restore system faults and failures in the shortest possible time;

- **supplementary maintenance:** remote maintenance, telephone support, 24-hour on-call service.

For other news in the Apulia Region, see the next article on landslides. ■



[BACK TO INDEX](#)

Apulia: maintenance of the landslide and sinkhole monitoring network



After fires and hydro-agrometeorological phenomena, here we are talking about landslides.

The Apulia Region completes a virtuous project by concentrating the following monitoring expertise in the Civil Protection Section:

- hydro-agrometeorological;
- landslides and sinkholes;
- early detection of forest fires.

This is an innovative approach that brings all these

areas of expertise together in a single structure to ensure comprehensive control over the various risk scenarios, and leverage the ability to analyse data from different sources.

CAE also won the second part of the maintenance tender organised by the Apulia Region: **“Maintenance and management of the landslide and sinkhole monitoring network”**. This is an experimental instrumental network for monitoring landslides and sinkholes. It is managed by the Civil Protection Section of the Apulia Region through its “Decentralised Functional Centre”. The monitoring system consists of:

- 3 **landslide** sites in the Dauno Sub-Appennines;
- 1 site representative of **rock landslides along the coast**;
- 1 site affected by **sinkholes**.

The network was set up as part of POR PUGLIA 2014/2020 Axis V “Climate change adaptation, risk prevention and management” - Action 5.1 “Hydrogeological risk reduction and coastal erosion





actions" ([click here](#) to learn more).

CAE is the Italian company with the most experience in the field of geological monitoring. In addition to building the network concerned, it played a key role in **creating the ARPA Lombardia geological monitoring network**, the largest in Italy (129 stations, 6 repeaters, 1 main station), and is still responsible for the **maintenance service**. The company has also successfully provided many other geological moni-

toring solutions, which was possible due to CAE's specialist expertise, i.e. **training and investment in instrumentation**, and experience in the use of GNSS technology, for example, for **geodetic monitoring in Val di Vizze**, for the Brenner tunnel, and for expansion and modernisation of the **GNSS network** co-located with ISPRA national tide gauge network. Now the service starts, ready to continue ensuring maximum network efficiency at all times. ■



CAE MAGAZINE

Managing Editor: Guido Bernardi

Editor-in-Chief: Enrico Paolini

Editorial Staff: Alberto Bertocco, Armando Di Martino, Virginia Samorini

Editorial Assistant: Virginia Samorini

Per riferimento: <https://www.cae.it/eng/magazine-hm-30.html?mId=183>

