

Workshop Dighe e Territorio

La realtà della Sardegna

Cagliari
6-7 giugno 2025

**EurCOLD actions to
promote public
awareness
on dam benefits**

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REGIONE AUTÒNOMA
DE SARDIGNA
REGIONE AUTONOMA
DELLA SARDEGNA



Enas

Ente Abbas de Sardinia
Ente Acque della Sardegna

Dams & Reservoirs DAY



2025



Water and Energy security for Europe



EurCOLD

- Members & Objectives
- Active European Working Groups and Task Forces
- Main tools and actions

EurCOLD actions to promote public awareness

- Dams & Reservoirs Day
- EurCOLD Manifesto

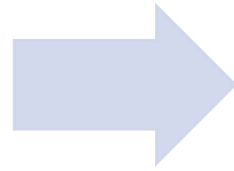


Diga Eleonora d'Arborea (della Cantoniera). www.enas.sardegna.it

EurCOLD. Member countries & Objectives

Constituted in 1995

27 European member countries



MAIN OBJECTIVES

Encourage EWG and European Symposia

Encourage cooperation and exchange information among European countries

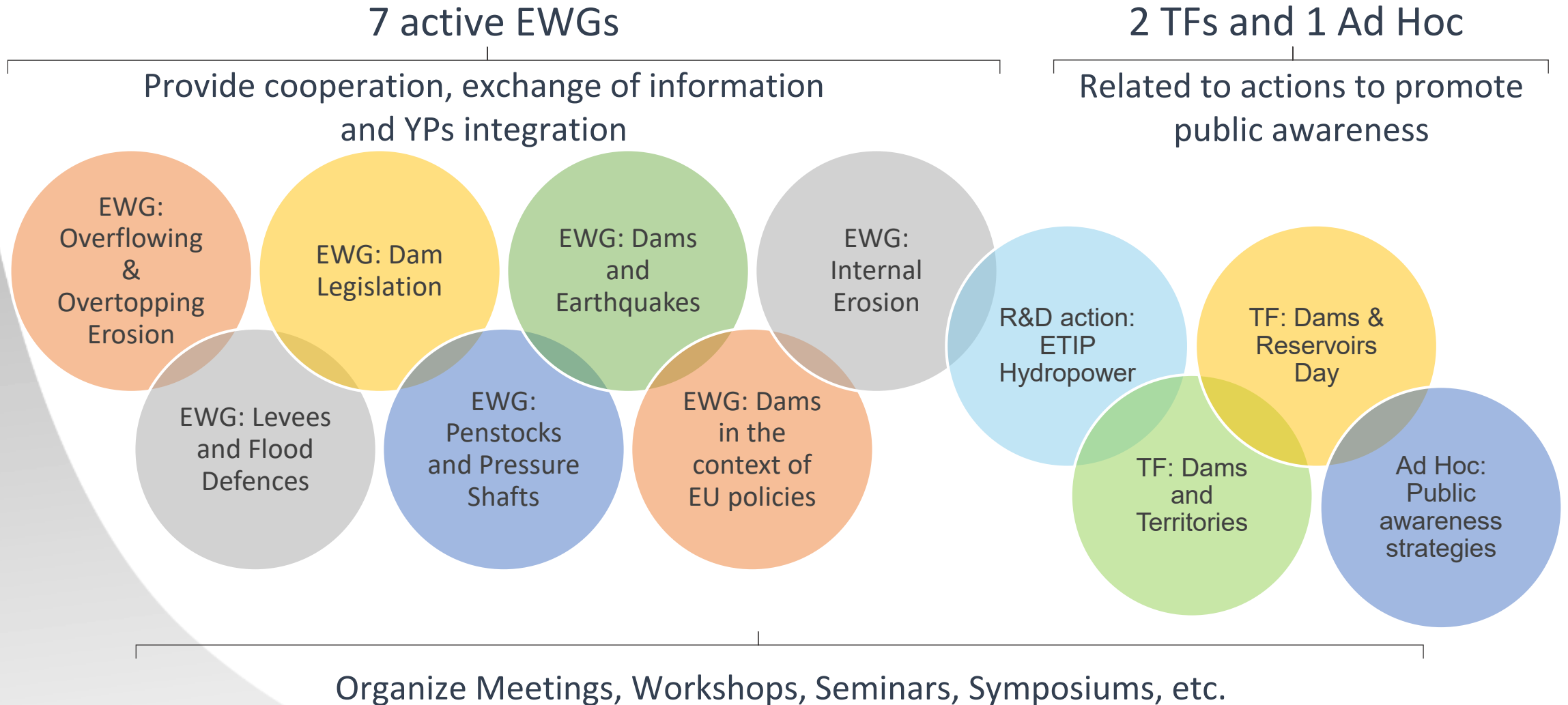
Provide expert technical advice in relation to dam and reservoir safety, where requested

Participate in public relations activities to explain social, environmental and economic benefits of dams

Promote co-operation in professional training of Young Professionals



EurCOLD. Current EWGs, TFs and R&D actions



EurCOLD. Main tools & Actions

European SYMPOSIA

Last: 12th EurCOLD Symposium, “The role of dams in the energy transition”

Interlaken
(Switzerland),
September 2023

Next 13th EurCOLD Symposium

Bydgoszcz (Poland),
September 2026

EWGs & TFs

12 EWG completed their task

7 active EWG
2 Task forces

1 Ad Hoc Group

R&D actions

Finished: Hydropower Europe

Ongoing:
ETIP Hydropower



Public awareness

Dams & Reservoirs Day
May - June 2025



EurCOLD Manifesto



Information could be found on the
EurCOLD website and LinkedIn:
<https://eurcold.apambiente.pt>
LinkedIn: ICOLD European Club (EURCOLD)

Dams & Reservoirs Day. Objectives and structure

Annual celebration established by EurCOLD for:

1. Raising public awareness about dams
2. Engaging local communities and stakeholders
3. Educating children and young people
4. Providing students and young professionals information on the sector
5. Promoting interactions between professionals

Celebrated in late May

Events are organized by National Committees (e.g. ITCOLD), information is shared and disseminated by National Committees, with the coordination of EurCOLD



Declaration

Dams and Reservoirs Day is an annual celebration established by EurCOLD (ICOLD European Club) and held in May. The initiative was launched by the Italian Committee on Large Dams (ITCOLD) to advocate for, recognize contributions to, and promote knowledge about the role of dams, reservoirs, tailings dams, and levees in economic, social, and environmental contexts. The event was first celebrated on May 29, 2024, under the motto "Dam Day: Reservoirs for Europe." This year, the second edition will take place on May 28, with active participation from EurCOLD member countries.

Objectives and structure: The main objectives of Dams and Reservoirs Day include:

- Raising public awareness about dams, reservoirs, tailings dams, and levees.
- Engaging local communities and highlighting their value in sustainable social development and prosperity.
- Educating children, young people, and society on their contributions.
- Providing high school students and young professionals with information on job opportunities in the sector.
- Promoting interactions between professionals and administrative bodies involved in the field.

Dams and Reservoirs Day is celebrated across Europe with various events that showcase the crucial role of these infrastructures. The event highlights their resilience and adaptability to climate change extremes—such as floods and droughts—while addressing the growing demand for potable water, energy production, and irrigation. Related activities may also take place in the days leading up to or following the official celebration.

Coordination: Events at the national level are coordinated by the European ICOLD National Committees. EurCOLD organizes activities and works closely with National Committees to enhance engagement, ensure synchronization, and promote the main objectives of Dams and Reservoirs Day.

Examples of activities: Interested parties (Dam owners, Authorities, cultural Associations, Universities, etc.) are encouraged to conduct events and activities such as technical visits to dams and excursions, debates, seminars, etc. The event is also supported by an online campaign in social media.

Dams & Reservoirs Day. Objectives and structure

Events take place in parallel across Europe, a short period before & after the nominal date

Technical visits and study days to mobilize and trigger (young) professionals and university students interest

Visits & excursions at dams (children, public)

Seminars and workshops on dam engineering

Sports and other activities (e.g. cultural) at dams and their reservoirs

Promotion on social media and the press

..here in Sardinia!



Ente acque della Sardegna



2024

Enas

Dam Day 2024 – Visita alla Diga
Cantoniera sul fiume Tirso

**Dighe e Territorio , La realtà
della Sardegna – Seminario
Tecnico**

2025



Dams & Reservoirs Day. 2024 Inaugural celebrations in numbers

The event was celebrated for the first time on May 29th 2024

Total participants recorded approximately: 3440 professionals & students



19 European ICOLD National Committees supported the inaugural celebrations

Photo: PTCOLD



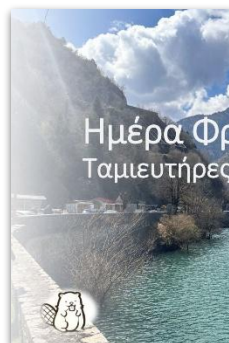
19 seminars, workshops, webinars, symposiums

Photo: POLCOLD



34 onsite visits (for professionals, universities, schools, general public)

Photo: ITCOLD



Other actions (e.g. podcast, ~1000 leaflets for distribution to schools, happenings, activity games for kids, online campaigns, video of dams)

Photo: ITCOLD

Dams & Reservoirs Day. 2024 Inaugural celebrations in numbers

Collaboration with 66 partners for 58 events around Europe

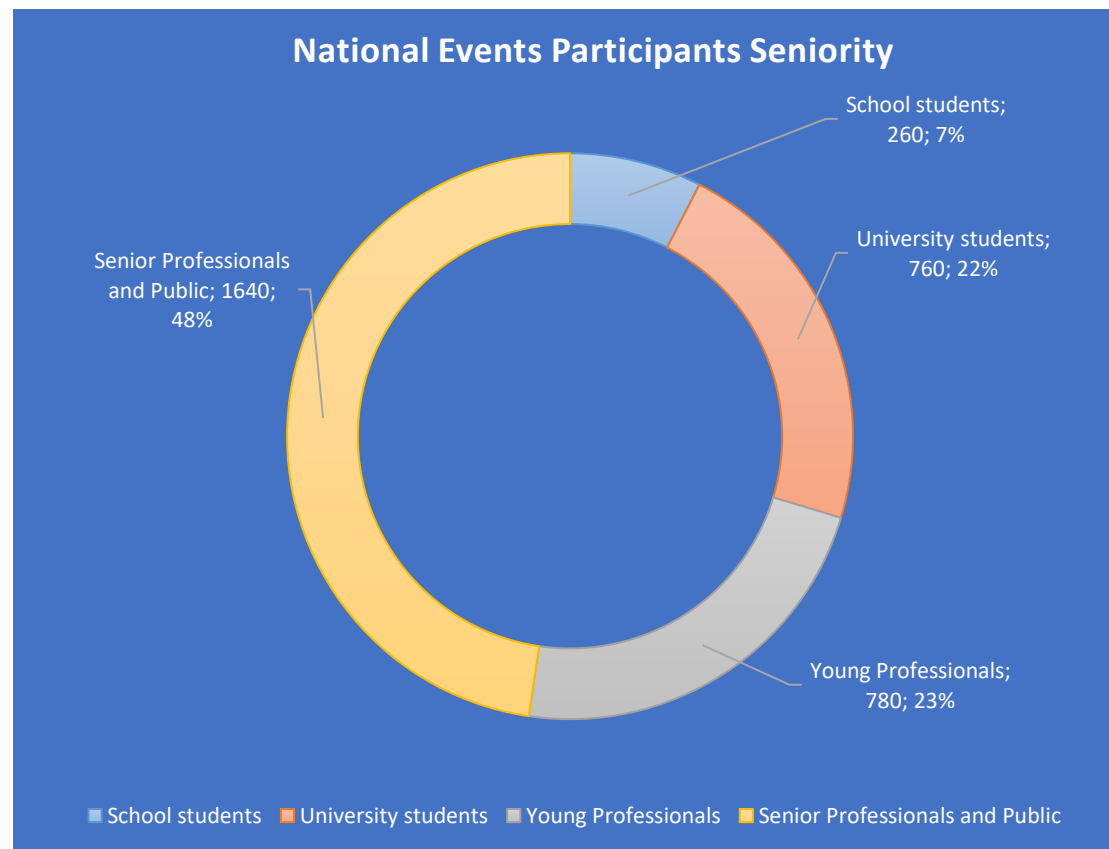
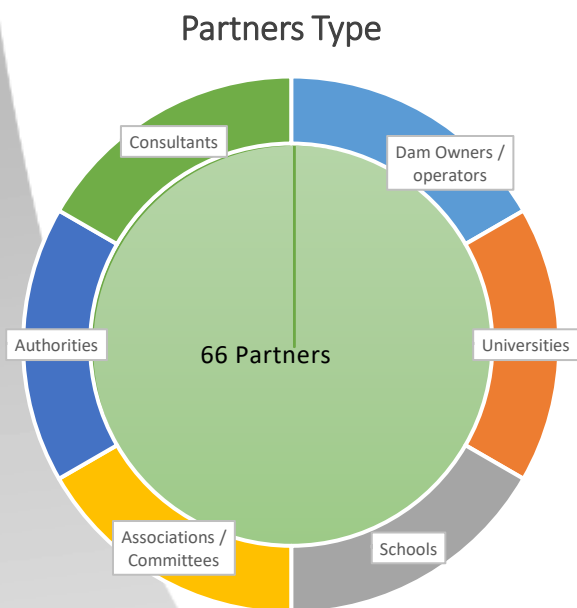
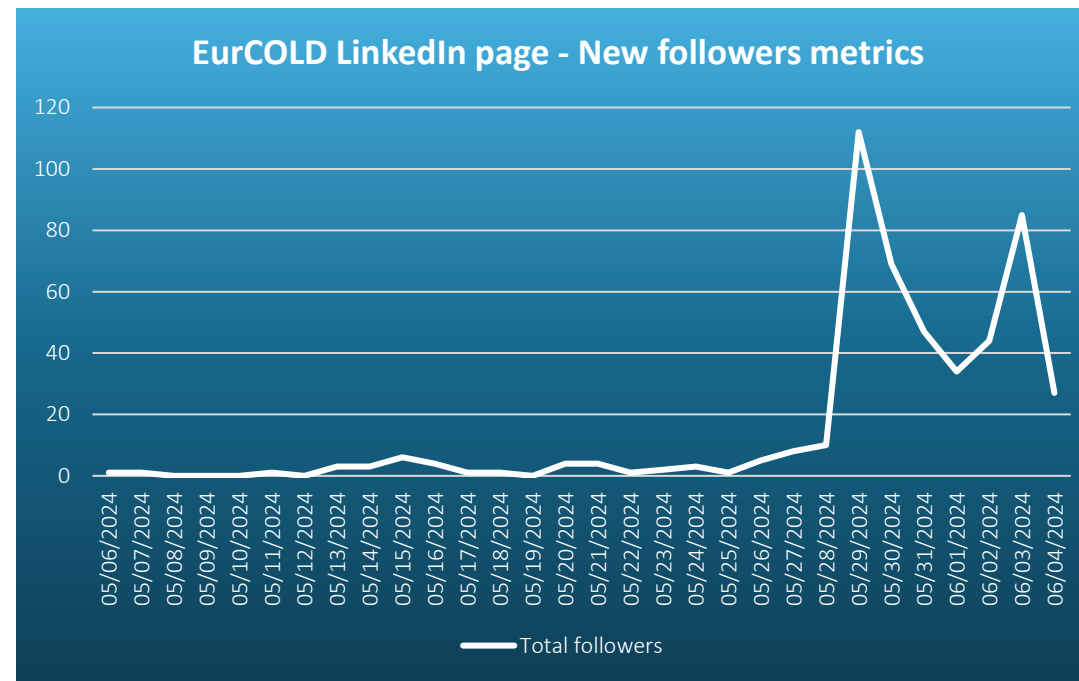


Photo: GCOLD

Dams & Reservoirs Day. 2024 Inaugural celebrations in numbers

**EurCOLD LinkedIn page tripled its followers in less than 10 days
(around 600 new followers)**

The Online Campaign was supported and promoted by ICOLD, International Water Power & Dam Construction, ETIP Hydropower, many Dam Owners & Operators, Engineering and Consulting Companies around Europe



ICOLD European Club (EURCOLD)
747 followers
1w •

Today, May 29th 2024, we celebrate the inaugural "Dam Day - Reservoirs for Europe" establishment.

This event aims to raise public awareness about dams, highlight their values and contribution to sustainable social development and prosperity, engage local communities, provide information to school students and young professionals, and promote interactions between different professionals and administrations in the dam sector.

#DamDay is already being celebrated across Europe with a variety of events that showcase the important role of dams. These events demonstrate how dams can adapt resiliently to climate change extremes, such as floods and droughts, and meet the increasing needs for potable water, as well as water for energy and irrigation purposes.

Throughout this week and beyond, we will share and repost information on activities related to Dam Day and the values of European dams. To kick off, we are presenting a video slideshow featuring information on dams across Europe and celebration activities. All photos and data have been provided by EurCOLD National Committees.

We encourage you to recognize the benefits of dams and support their sustainable development for future generations!

[International Commission on Large Dams \(ICOLD\)](#)
[British Dam Society](#)
[Eija Isomäki](#)
[Comité Français des Barrages et Réservoirs \(CFBR\)](#)
[GCOLD - Greek Committee on Large Dams](#)
[ITCOLD](#)
[Catalin Popescu](#)
[SPANCOLD - Comité Nacional Español de Grandes Presas](#)
[Mateja Klun](#)
[Swiss Committee on Dams](#)
[Yasemin Er](#)
[Sera Lazaridou](#)



Dam Day
Reservoirs for Europe

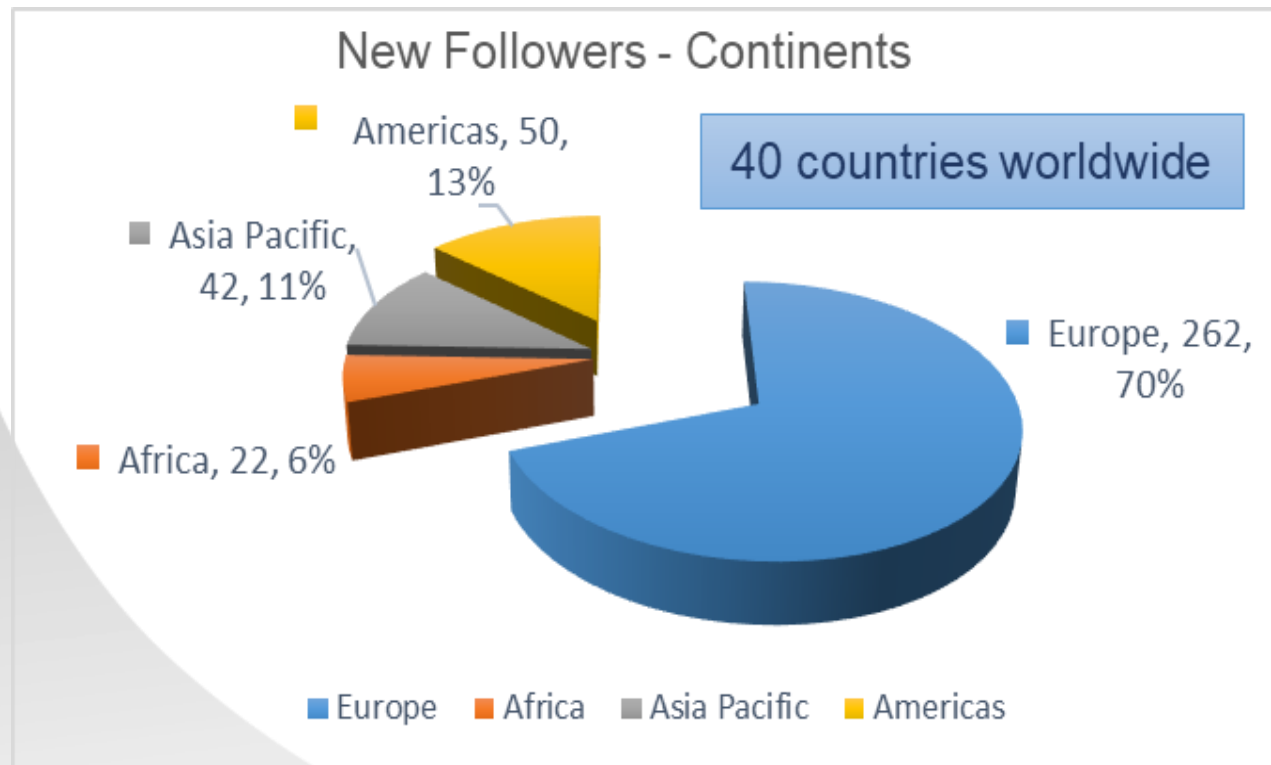
~1000 direct (and indirect) likes, ~80 reposts, ~18% mean engagement

Reservoirs for Europe
Dam Day

Dams & Reservoirs Day. 2024 Inaugural celebrations in numbers

New followers are based mainly in Europe (around 70%)

New followers are mainly from dam and hydropower industry (companies, administration, universities, research centres, etc.)



The 2024 celebration has been successful to engage our industry. Target to widespread messages to other sectors and the public at large ..and geographically.

Dams & Reservoirs Day. 2025. Ongoing event

GCOLD

Press Conference (May 9th 2025)

PTCOLD

ITCOLD

TRCOLD



Webinar

European Dams and Reservoir Day

11th June 2025 11 am – 13 pm



Sera Lazaridou
President, ICOLD European Club
European Dams and Reservoirs

Dr. Emanuele Quaranta
Scientific Officer, European Commission, Joint Research Centre (JRC).
Complexities and challenges of water reservoirs with
focus on EU policies



Dr. Christoph Hauer
Chair, ETIP WG2: Hydropower and Biodiversity
Good practices of the European Hydropower industry to
address aquatic biodiversity management and sediment flow

Liza Bensasson
Vice Chair, ICOLD

World declaration on the role of dams for energy transition and
climate change adaptation



✉ Register Now



ICOLD
YPF

This is EurCOLD's core document of the Dams & Reservoirs Day

The European ICOLD Club (EurCOLD), by means of this document, aims to create awareness in Europe on the role that water reservoirs and dams play in our lives and, consequently, call for a smarter governance framework.



Follow us



May
2025



**Revised, updated and
upgraded version, recently
approved in May 2025**

The MANIFESTO represents a commitment by the European dam industry to the effective, efficient, socially concerned, transparent and responsible management of water resources.



MANIFESTO

Dams & Reservoirs



Follow us  

May
2025





EurCOLD is the European regional interest group created in 1995 by the International Commission on Large Dams (ICOLD) to facilitate the interchange of knowledge and experience between countries with common interests, socio-economic backgrounds and environmental status.

By means of this **Manifesto** , EurCOLD aims to create awareness in Europe on the role that dams and reservoirs play in our society and, thus, call for a smarter governance framework.

This Manifesto is aligned with the **ICOLD** World Declaration “**Dams and Reservoir for Energy Transition and Adaptation to Climate Change**”.

Immagine che contiene panorama, aria aperta, acqua, montagna

Descrizione generata automaticamente

mission



Encouraging the exchange of up-to-date information, guidelines and research studies on issues related to design, construction, operation and maintenance of dams, reservoirs and water resources systems, while boosting their sustainable development.

Participating in public awareness activities to explain the social, environmental and economic benefits of dams and reservoirs and encouraging the organization of regular European Symposia on Dams and Reservoirs, including the launch of the DAMS and RESERVOIRS DAY.

Facilitating the exchange of information on the legislation, standards and best practices applied in all countries for the safety assessment of dams, reservoirs and ancillary works and for the improvement of their sustainability to preserve environmental integrity.

Co-operating in the professional training of young engineers in relation to dams and reservoirs through their participation in Working Groups, Technical Committees, symposia, conferences etc., promoting exchanges of experiences between different countries.

Providing information to advise European decision-makers on emerging issues related to dams, reservoirs and sustainable water management, making them aware of the climate mitigation and grid-balancing services these systems can deliver for the energy transition.





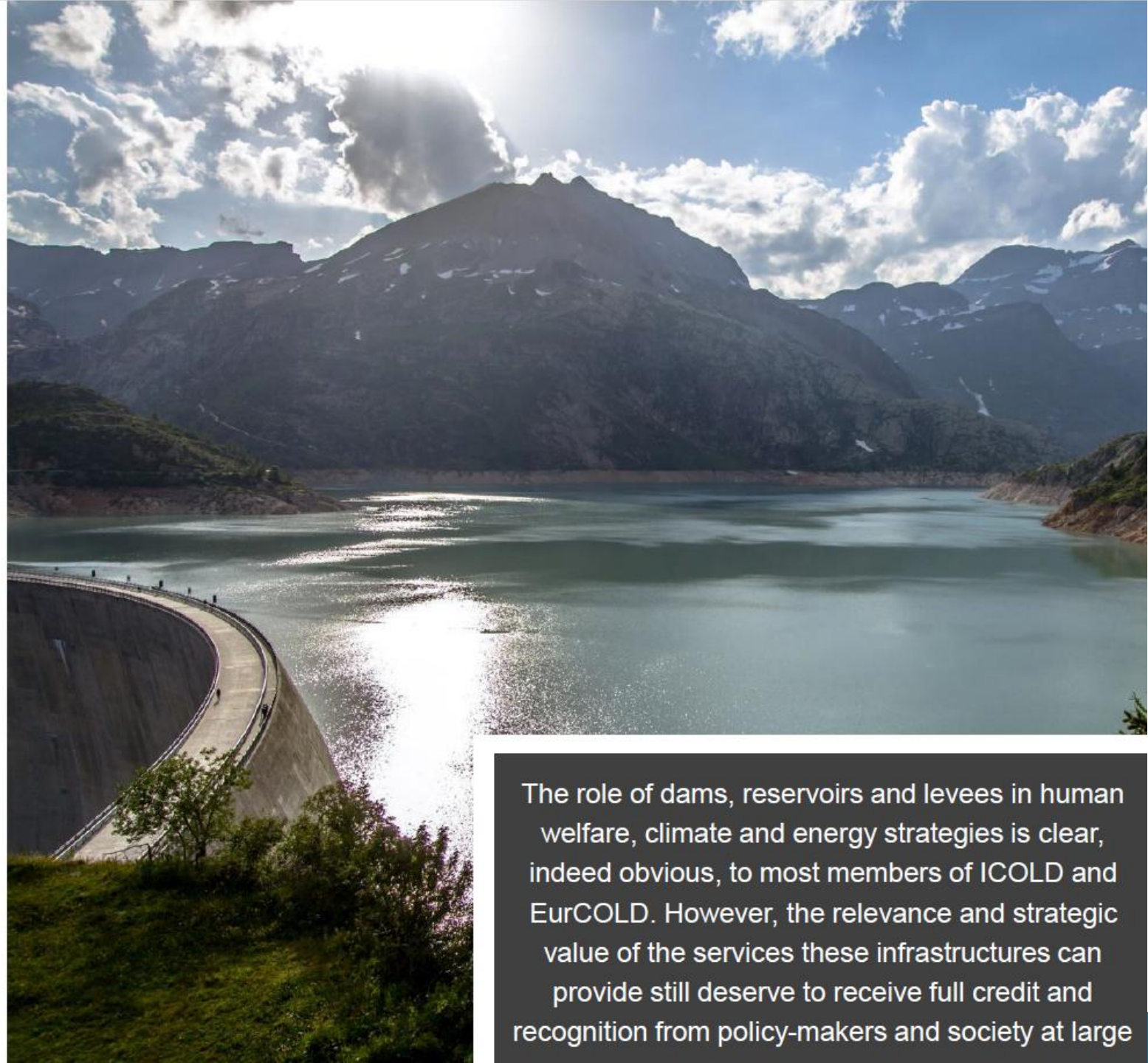
This **MANIFESTO** consolidates the collective effort of all sectors represented in EurCOLD, including government agencies, industries, universities, research centres, enterprises, professional associations etc. It represents a commitment by the European dam industry to the effective, efficient, socially concerned, transparent and responsible management of renewable water resources.



In the **world** there are nearly **62,000 large dams** which **store and regulate more than 8,700 km³ of water** (ICOLD, 2023), namely about more than twice of the world's annual renewable freshwater withdrawals for human use (FAO AQUASTAT, 2021).



In **Europe** there are **more than 6,200 large dams**, around 10% of the total number of dams in the world (ICOLD, 2023), which **store and regulate nearly 230 km³ of water**, more than 3% of the world's existing reservoir capacity (FAO AQUASTAT, 2021).



Water governance, supporting technologies and necessary infrastructures, such as dams, are playing an increasingly important role in our society due to their broad impact in water supply, food security, renewable energy production and storage, electric grid safety and reliability, climate change mitigation and adaptation, drought management, flood risk mitigation, integrity of aquatic ecosystems, transport, recreation, as well as their contribution to achieving the Sustainable Development Goals and improving the overall resilience of society



The role of dams, reservoirs and levees in human welfare, climate and energy strategies is clear, indeed obvious, to most members of ICOLD and EurCOLD. However, the relevance and strategic value of the services these infrastructures can provide still deserve to receive full credit and recognition from policy-makers and society at large

DAMS FOR HUMAN WELL-BEING AND FOOD SECURITY



A large part of the European population lives under highly water-stressed conditions (World Resources Institute, 2023).

Agriculture accounts for roughly 70% of freshwater withdrawals but industrial ($\approx 20\%$) and domestic ($\approx 10\%$) uses are the main drivers of increasing water demand (UNESCO, 2024).

Enhancing water use efficiency and management systems is key to slowing down freshwater withdrawals. This encompasses a spectrum of strategies to foster advanced irrigation and control techniques in agriculture and water-saving technologies in industry.

Currently, about 35% of existing reservoirs supply irrigation water for rural areas and nearly 14% drinking water for millions of people, even covering the time and space mismatch between water availability and demand.

A loss of 28% of storage capacity from sedimentation is expected by 2050 (Perera et al., 2023). Therefore, to fully leverage sustainable water resources innovative techniques of sediment removals, heightening of existing dams, multi-purpose use of water reservoir, and reservoir interconnections must be fostered.

DAMS AND ENVIRONMENT



The 8th Environment Action Programme (EAP, 2022) is shaping European environmental policy through 2030, recognizing that **human well-being and prosperity depend on healthy ecosystems**.

Since 2000, the Water Framework Directive (WFD) has been the cornerstone legislation for the protection of water status in Europe through the implementation of **River Basin Management Plans** (RBMP), valid for a six-year period and based on a river basin district approach. In 2012, the Water Blueprint Strategy officially introduced the concept of **Ecological flows** (E-flows) with the aim of achieving a good status in all water bodies as required by the WFD.

The positive mindset and increased awareness among European dam operators

towards the preservation of ecosystems, the restoration of wetlands, and the establishment of oases for biodiversity and ecological health must be stressed.

Agreements are signed with institutions and stakeholders to manage the circular reuse of sediments and bolster local economy.

Many operators have pursued voluntary environmental certifications to assess the performances of their facilities. **Sharing this data with environmental organizations is crucial for receiving recommendations to improve these practices and fostering proactive collaboration.**

The **Hydropower Sustainability Standard** has been introduced to demonstrate the environmental, social and governance performance of new hydropower projects.



DAMS AND CLIMATE CHANGE

Human activities are responsible for global warming, resulting in more frequent and severe extreme weather events worldwide. **Currently, floods and droughts rank among the most catastrophic water-related disasters.**

From 2003 to 2022, floods affected an estimated average of 74.6 million people globally (32.4 million in 2023), while droughts impacted around 57.1 million individuals on average (21.8 million in 2023).

The persistent lack of rainfall and snowfall, coupled with above-average temperatures and heatwaves, has affected more than a third of Europe.

This has implication for local freshwater availability, agriculture and biodiversity, ecosystems, alongside the intrusion of seawater into inland areas.

Dams, reservoirs and levees are crucial for managing floods and droughts.

Studies by EurCOLD have assessed that the reduction in flood peaks ranges from 12% to 100%, with an average decrease of 54% (EurCOLD, 2010). In response to the 2022 water crisis, in Europe reservoirs increased their water releases to support agriculture.

Understanding the complex inter-sectoral dynamics of water, climate, energy and food nexus is a cornerstone to streamline water-related policies to achieve the overarching goals of the European Green Deal, fostering a sustainable (clean and circular) and competitive EU economy. Given that climate change affects water cycle and its availability, worsening inequalities in water access, **hydraulic works must take a proactive role in climate adaptation actions, boosting the efficient, responsible, sustainable, and trans-boundary use of water resources.**

DAMS AND ENERGY TRANSITION



The energy sector is at the forefront of the green transition from fossil-based to zero-carbon sources to turning Europe into the first climate-neutral continent by 2050. Accelerating the exploitation and development of renewable energies is necessary to achieve the EU's ambitious climate and energy targets. However, integrating an ever-growing share of typically intermittent generation from wind and solar sources does indeed entail the **need for balancing services** to stabilize the grid frequency.

Hydropower is called to play a paramount role in this energy transition, not only because it is the largest Renewable Energy Source (RES) both globally and in Europe (EMBER, 2024) but also due to its current ability to provide those balancing services (such as flexibility and storage capacity) that are crucial to securing the

electricity grid and consumer energy supply. At present, **hydropower accounts for nearly one-third of the global capacity for flexible electricity supply** and has the potential to provide even more (International Energy Agency, 2021).

However, **enhancing its storage capacity will require new regulatory frameworks in the energy market.**

Strengthen the role of hydropower, supported by innovative technologies aimed at enhancing generation flexibility and energy storage capacity, is essential for delivering grid-balancing services. Additionally, its reliable, efficient, and cost-effective production has the advantage of not depending on energy imports or fluctuations in fuel price.

Finally, **tailing dams are crucial works that ensure a safe and sustainable supply of critical raw materials.**

DAMS AND SUSTAINABLE SOCIETIES



In Europe, dams and hydraulic works in general offer numerous advantages, including climate mitigation and adaptation services that enhance water governance, territorial protection, food security, and overall human well-being, along with sustainable energy production and grid-balancing services that facilitate the energy transition.

Additionally, reservoirs and dam sites are increasingly becoming attractive places for sports competitions, recreational activities for family, and tourism in general. Society must be aware of all these benefits but also of the safety and vulnerability concerns associated with dams and reservoirs. Some key issues are here tackled.

Infrastructure Ageing, Safety, and Operational Challenges

There is a critical need to modernize aging dams, appurtenant structures, and electromechanical equipment to prevent decommissioning. The digital transition presents opportunities to enhance monitoring and control systems besides operating procedures.

Sustainability, Energy Transition, Climate Change

Citizens must be informed about how sustainable dams, levees and reservoirs can improve energy security and help mitigate the effects of climate change, contributing to a climate-resilient society. Attracting investments to implement mitigation measures to protect the environment and aquatic ecosystems is crucial for human well-being.

Young professionals

ICOLD has established the Young Professionals Forum (YPF) to facilitate the transfer

of knowledge and experience to the next generation, and to foster intergenerational dialogue, thus bridging the gap arisen in recent years.

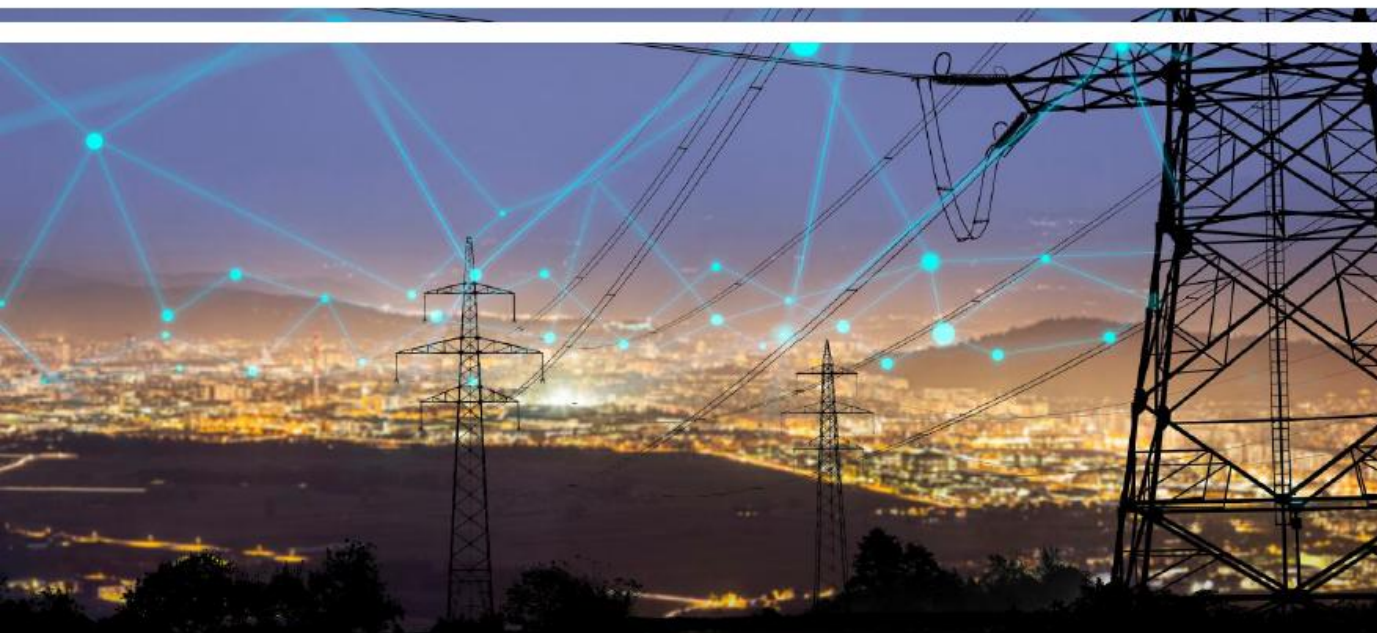
Public acceptance

Public opinion significantly influences energy, climate and environmental strategies, potentially hindering hydropower development more than technological or financial challenges.

Engaging in open dialogue with movements expressing dam-related concerns, environmental organizations and the community - focused on concepts of justice, equity and related social implication - is the cornerstone for gaining public acceptance of dams and reservoirs.

Widespread initiatives such as Dams & Reservoirs Days play a vital role in educating and informing citizens about the importance and benefits that dams and reservoirs provide to society.

A CALL FOR A SMARTER GOVERNANCE FRAMEWORK



To effectively **align environmental and climate targets with energy goals**, dams, reservoirs and other hydraulic works can and should play a proactive role to directly promote a smarter governance to achieve the Sustainable Development Goals (SDGs). Presently, **society still underestimates the value of water** while being on the brink of a global water crisis.

Dams and hydraulic works should pledge to be at the forefront of a **sustainable and smart water governance**. The multipurpose use of reservoirs should be strategically coordinated and prioritized in collaboration with institutions and stakeholders that have competing demands for water resources. **An integrated policy framework should aim at developing a water-resilient economy and society by adopting a nexus approach** that connects water, energy, and food systems.

Striving for a clean and circular economy will help turn environmental and climate challenges into opportunities, making the EU's economy sustainable while preserving competitiveness.

Dams and reservoirs are called upon to take a proactive role in climate adaptation actions, boosting the responsible, efficient, sustainable, and trans-boundary use of water resources to mitigate the effects of climate change on the water cycle and availability that can exacerbate inequalities in water access.

Concurrently, the increasing frequency of severe flooding will call for the social services provided by reservoirs to mitigate these risks, thereby reducing loss of life and economic damage.

Hydropower can significantly contribute to meeting the growing demand of the

electricity grid for flexibility across short, medium and long-term by fostering balancing-oriented operation and storing the potential energy of water to be used whenever necessary.

Currently, pumped storage hydropower plants provide over 90% of Europe's electricity storage capacity.

In this way, the hydroelectric sector also embodies the energy independence of Europe.

Making policy-makers aware that the hydroelectric sector can be appointed as a major player in the decarbonization process supporting the European countries to effectively steer their climate and energy policies.

Hydropower should be recognized as a strategic option in National Energy and Climate Plans (NECPs) with its financing prioritized in governmental political and research agendas.

Reservoirs, dams and levees, jointly with other structural and non-structural measures, can represent the key system in the framework of a sustainable and smarter water governance and a green energy transition while protecting the environment. Efforts are needed, at both technical and institutional level, to seek the necessary mediation among differing viewpoints that should align for the collective human well-being.

The EurCOLD launches this MANIFESTO with the aim of promoting an honest and transparent public debate which will hopefully facilitate actions to raise awareness of European policy to support the role of reservoirs, dams and levees for water supply, irrigation and green energy production, providing an effective contribution to climate change mitigation and adaptation, preserving the environment, and increasing societal resilience.





Grazie! Thank you!

EurCOLD Website: <https://eurcold.apambiente.pt/>

EurCOLD LinkedIn: <https://www.linkedin.com/company/icold-european-club-eurcold/>

We thank all organizations and National Committes to support and participate in 2025 celebrations and we encourage on the following years!