



INTERNATIONAL CLEANTECH NETWORK

2023 ANNUAL BOOKLET

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Cleantech continues to grow globally at an accelerating pace, technologies that were horizon or pre-commercial are now more competitive than traditional solutions.

This increasing competitiveness and widespread deployment of cleantech comes at a time of heightened global uncertainty, where conflict dominates the news cycle. These conflicts are resulting in an amplified policy drive toward sovereignty of supply chains, creating significant opportunities in cleantech. Circular economy solutions are being designed to keep raw material, critical minerals and embodied energy in supply chains at their highest productive use for as long as possible. Water, energy and food systems dominate the discourse for how economies can become more circular & resilient. These all require robust cleantech solutions, new business models and innovation to succeed. The need for cleantech SMEs to innovate, internationalise and localise solutions has never been higher.

The International Cleantech Network has had an extremely productive 2023, building out collaboration platforms on Solved for the members of the ICN clusters. Now representing 23 clusters from 4 continents (roughly 7 000 SME across over 100 cities) the ICN has created a network that provides insight, collaboration, competitiveness and direct opportunities for members.

The ICN has worked to grow its presence in developing economies – along with opportunities for SME and B2B exchange, all aiming to accelerate the development of green solutions across members and across regions using local clusters as the vehicle.

The imperative to focus on GreenTech, resilience and low carbon growth will be reinforced this year as over 1/3rd of the world's population vote for leadership in elections. These votes will sharpen the minds of leaders toward the imperatives of sustainable development, resilience and growth.

The climate science is clear on the parameters associated with various climate change pathways, and the outcomes of the damage that has already been done. It is also clear that there will be a price to pay – what will be determined through our collective action is how much, where and by which generation this price will be paid.

The ICN is and will accelerate all of the commercially viable cleantech solutions, work with SMEs and members on creative ways to accelerate the viability of emerging solutions so that in every scenario, the collaborative power of solutions providers across four continents can be brought to the fore.

January 2024

MIKE MULCAHY

LETTER FROM THE CHAIRPERSON



01. WHO IS **ICN?**





The International Cleantech Network (ICN) is an independent **non-profit organisation** for the world's leading cleantech cluster organisations, consisting of **23 regional clusters** from around the world.

ICN clusters are typically based on a **triple-helix structure**, meaning that their membership consists of companies (primarily SMEs), public authorities, and research institutions.

The SMEs of the ICN clusters are at the **international forefront** of sustainable energy and environmental industries and collectively provide innovative technologies to meet the growing global demand for green technologies and sustainable solutions.

As members of ICN, clusters can provide **opportunities** for their members to expand their international networks and associate with project owners outside of their region.

4
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23
CLUSTERS

Triple
HELIX FRAMEWORK

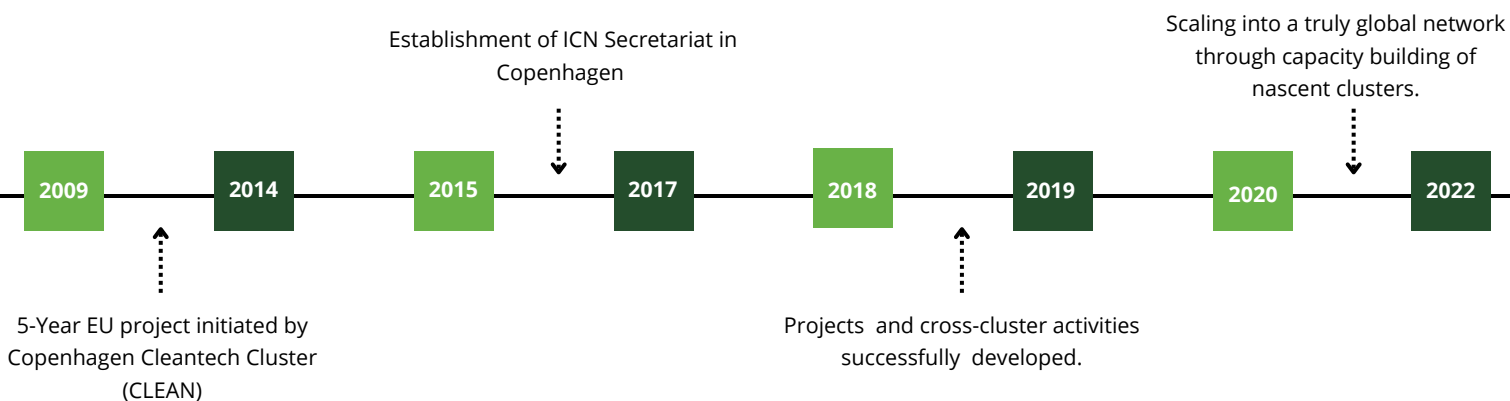


OUR MEMBERS

Our members are characterised by a cross-sector framework which involves SMEs and other stakeholders from within ICN's three core thematic focus areas (Water, Energy and Circular Economy).

ICN connects more than 7 000 SMEs, 100 public authorities, and 90 research institutions. Each cluster represents businesses and knowledge institutions that are leading within their field of cleantech, providing the ICN network with valuable expertise.

OUR HISTORY





MISSION

We **strengthen cleantech ecosystems** to **advance a greener future** by:

- Building capacity through **enhanced collaboration** and **knowledge exchange**.
- **Fostering cross-border** innovation partnerships.
- Accelerating the **global adoption** of cleantech solutions.

VISION

Our vision is to be **the global hub for cleantech ecosystems, driving collaboration for sustainable development.**

02.

2023 Highlights



I. CONNECTING CLEANTECH ECOSYSTEMS



2023 ICN SOLUTIONS GROWTH

ICN PLATFORM GROWTH

This year, ICN continued to onboarding new users to the ICN Solutions Platform, contributing to growing the cleantech ecosystem.

During 2023, we welcomed around **230** new members, achieving a total of **548** users onboarded to the ICN solutions Platform.



There are **51 countries represented in the platform**, with **Denmark, South Africa, Argentina, and Canada** being the countries with the biggest representation.

Country	Number of users
Denmark	140
South Africa	82
Argentina	62
Canada	34
Netherlands	30
Sweden	22



2023 ANNUAL MEETING

APRIL 2023, CANADA

In 2023, the ICN network gathered for the Annual Meeting in Vancouver, Canada. The Annual Meeting was hosted by the member cluster Foresight, and the program was filled with insightful presentations of the cleantech competencies and challenges of British Columbia and Canada with a special focus on mining, bioeconomy, and water. The ICN clusters engaged in fruitful discussions on cluster collaboration and exploration of future joint activities.

The ICN network looks forward to meeting again for the 2024 Annual meeting which will be hosted by the Mpumalanga Green Agency Cluster in South Africa.





2023 EVENTS OF THE YEAR

In 2023, ICN actively participated in key events, showcasing its commitment to excellence and contributing significantly to pivotal discussions, boosting ICN's visibility worldwide.

COP 28, DUBAI (UAE)

Through ICN, Clean took part in COP28 in Dubai last year. It was an inspiring and insightful event and with some key outcomes, supporting the green transition and environment. The acknowledgement of fossil fuels as the root cause of climate change: This was the first COP to officially declares the intention to "transition away from fossil fuels". In addition, renewable energy and energy efficiency: Over 100 countries agreed to triple renewable energy capacity and double the global rate of energy efficiency by 2030. Meeting with international partners and future partners as well as other ICN partners from the network in a setting like COP28 foster new inspiration and ideas for collaboration that are very much aligned with political outlooks and agreements. Clean was thrilled to be present at COP28 and we look forward to build further on the dialogues there to develop relevant activities and projects for members of ICN and their respective networks, leveraging the unique collaboration we have within ICN.



Hein Molenkamp from Water Alliance and Claire Pengelly from Green Cape where also present.

Anders Sloth Nielsen – Chief Project Manager at Clean

2023 EVENTS OF THE YEAR

EU-CHINA INDUSTRIAL INNOVATION & COLLABORATION CONFERENCE, WUXI (CHINA)

I had the privilege of representing ICN at the EU-China Industrial Innovation & Collaboration Conference in Wuxi, China, in November 2023. We actively participated in a roundtable discussion on effective collaboration mechanisms for international industrial cooperation alongside representatives from the National Development & Reform Commission, the Wuxi Municipality, Jiangsu Province, and European & Chinese industrial companies. The experience was insightful, fostering stronger ties and contributing to the advancement of global collaboration efforts.

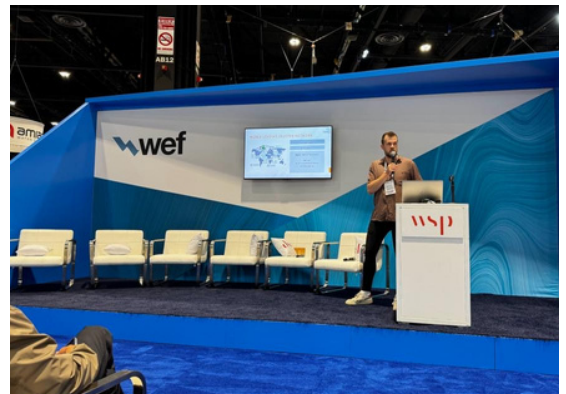
Ben Jorgensen - ICN Head of Secretariat



2023 EVENTS OF THE YEAR

WEFTEC, CHICAGO (USA)

ICN hosted two sessions at WEFTEC Chicago in October 2023. On the behalf of ICN, Clean, France Water Team and Water Alliance hosted a lunch reception in collaboration with the Water4All programme at the Dutch and Danish Pavilions for 80+ delegates from the clusters and their wider partners. On the 4th October ICN in collaboration with Water4All hosted a pitching session on the WEFTEC Global Centre Stage. Here Aquaint (Water Alliance member), Klarifi (Clean member) and Redberry (France Water Team member) pitched their companies to a wide audience. Following WEFTEC, Redberry has launched a pilot in Denmark and has benefitted from ICNs services to utilise Clean's office and network.



Scott Grønnegaard Allison - Chief Project Manager at Clean

2023 EVENTS OF THE YEAR

AQUATECH, AMSTERDAM (NETHERLANDS)

ICN hosted a pitching session at Aquatech Amsterdam on the 7th November. Clean, Foresight, France Water Team and Water Alliance hosted the session at the Dutch Pavilion with APX10 (Clean member), Field Factors (Water Alliance) and DYSSEE (France Water Team) pitched their company and how they work with urban climate challenges. During the four days, ICN facilitated matchmaking between 50+ attending members of Clean, France Water Team, Foresight, Water Alliance and other partners.

Stefan Bergsma - International Project Manager at Water Alliance



2023 EVENTS OF THE YEAR

ENLIT AFRICA, CAPE TOWN (SOUTH AFRICA)

As part of the International Business Track South Africa, organised by Flux50 for its members, we participated in Enlit Africa.

Flanders had a small booth at the fair. Thanks to GreenCape our 5 participating companies could pitch their solutions at the Green Hub, which provided them with some valuable contacts afterwards. Thanks to GreenCape we could get in touch with and visit SARETEC, HYENA and HYSAC in CapeTown.

*Ariane Raïssa Decramer - Internationalisation
Pionner | Account Manager*



II. STRENGTHENING CLEANTECH ECOSYSTEMS



2023 ICN NEW MEMBERS

Throughout the year, ICN warmly welcomed **four** new clusters into its international fold. This growth not only signifies the progressive reach of our network but also underscores the collective commitment to advancing sustainable technologies worldwide.

CLUSTER TWEED, BELGIUM

Bringing together over two hundred stakeholders from Wallonia and Brussels in the Renewable Energy sector, the TWEED Cluster is dedicated to advancing investment, innovation, development, and value in sustainable energy production and utilization. The cluster functions as a proactive intermediary, fostering collaboration among industry players, knowledge institutions, and government entities. Its mission revolves around mobilizing these key stakeholders, facilitating partnerships, and driving impactful projects within the sector, thereby contributing to the overall progress and sustainability of energy initiatives.



2023 ICN NEW MEMBERS

FRANCE WATER TEAM, FRANCE

France Water Team constitutes an innovation ecosystem comprising nearly 450 members in continuous interaction, including approximately 370 companies and 40 academic institutions. Designated as a Competitiveness Cluster for the Water Sector by the State on February 5, 2019, the association brings together the aspirations of its three founding members—AQUA-VALLEY, DREAM Eau et Milieux, and HYDREOS—following a federative model. Collectively, these three entities address key innovation challenges within the water sector, focusing on preserving quality and managing quantity.

The cluster efforts center around various themes, including water in urban and rural areas, water in agriculture, water in industry, water in well-being, leisure, and health, as well as water in the natural environment



Pôle de compétitivité de la filière de l'eau

2023 ICN NEW MEMBERS

CLUSTER CLEANTECH COLOMBIA, COLOMBIA

Cleantech Colombia aims to promote the green transition for companies in Colombia and foster international connections to address environmental challenges. The organization is dedicated to steering the development of innovative projects that expedite environmental initiatives. The members of Cleantech Colombia are at the heart of their activities, serving as the driving force behind their existence. They actively facilitate regional, national, and international collaboration, promoting relationships among companies of varying sizes, knowledge institutions, and public authorities. The key focus areas include renewable energy, sanitation (wastewater and sewage), circular economy, waste and materials management, marine coast preservation, and sustainability in the food and beverage sector.



2023 ICN NEW MEMBERS

INNOVALL, SPAIN

INNOVALL, the National Cluster of Innovation and Sustainability based in Ontinyent, aligns its associated companies towards innovation, business collaboration, and internationalization, irrespective of size or sector. Emphasizing simplicity and dynamism, INNOVALL operates with minimal structure, forming strategic partnerships with technological entities and universities. The cluster's goal is to enhance global market presence by adding value through applied innovation and environmental sustainability. Actively engaged in events and missions, INNOVALL is recognized for excellence by the Ministry of Industry, contributing to European policies in Horizon 2020. By uniting under the "INNOVALL" brand, companies leverage collective strength for joint ventures and international projects. INNOVALL advocates for a departure from localism, offering partners assessment, information, and tools to strengthen their brands nationally and internationally.



III. FOSTERING CROSS-BORDER INNOVATION PARTNERSHIPS



PROJECT DEVELOPMENT

2023 was marked by a dynamic and proactive engagement of ICN in project development, reflecting our steadfast commitment to fostering positive change and innovation.

CPAP - CIRCULAR PLASTICS IN THE AMERICAS PROGRAM



CPAP has reached a successful culmination in 2023. Over the past three years, ICN participation in CPAP has played a pivotal role in contributing to the transition towards a circular economy in Brazil and Colombia. Notably, ICN facilitated two impactful delegations from Colombia and Brazil to Europe during 2023, showcasing the value of participating in projects like CPAP to drive international collaboration and knowledge sharing. These delegations underscore the significance of ICN involvement in successful initiatives and emphasize its commitment to fostering sustainability on a global scale.

ACELERA



ACELERA project is an initiative that aims to promote the circular economy in Argentine SMEs and support their sustainable transition through training activities and international cooperation for the implementation of innovative solutions and the identification of financing opportunities. The project is financed by the European Commission through AL-INVEST Verde and the consortium in charge of its execution is made up of the International Network of Cleantech Clusters (ICN), the Cleantech Cluster of Denmark (CLEAN), the Greentech Brusquitas Cluster of Argentina (BQS) and the National Institute of Industrial Technology (INTI).

III. FOSTERING CROSS-BORDER INNOVATION PARTNERSHIPS

PROJECT DEVELOPMENT

EVERY1



ICN is proud to be a partner in the Every1 project - Empowering eVeryone's Engagement in eneRgY: The Project, funded by the European Union, is dedicated to developing training and networks for the digitalisation of the energy transition. At the end of 2023, the project has run for just over a year. During this first part of the project, ICN's role has been to engage ecosystems/clusters across the EU to contribute to co-creating learning materials and to share insights on learning needs. The ICN looks forward to continuing the work with old and new ecosystems in the next phases of the project.

WATER SMART CONNECT

ICN members Clean, France Water Team and Water Alliance developed Water Smart Connect project under the EU Horizon Europe programme. Together with three other water clusters and 7 regional authorities, the project aims to facilitate cross-regional initiatives leveraging unique regional strengths to advance the EU's Smart Specialization Strategies. The ultimate goal is to establish the groundwork for a water-smart society.

III. FOSTERING CROSS-BORDER INNOVATION PARTNERSHIPS



MATCHMAKING ACTIVITIES

65

SMEs CONNECTED
TO FUNDING
OPPORTUNITIES

In 2023, ICN facilitated numerous SMEs in establishing connections with various funding opportunities, including Water4all, NOPEF/NEFCO, Innowide, and Eurostars. This enabled these companies to enhance their access to the global innovation ecosystem.

99

SMEs PARTICIPATING
IN HIGH-LEVEL
EVENTS

In 2023, 99 SMEs were granted the opportunity to participate in prestigious events such as Aquatech and WEFTEC. This not only provided them with exposure to high-level industry gatherings but also facilitated targeted matchmaking sessions, fostering collaboration and synergies among the participating SMEs.

IV. ACCELERATED DEPLOYMENT OF CLEANTECH SOLUTIONS



ICN CHALLENGES

One of the advantages of being a member of ICN is to be able to access several business opportunities from our ICN partners all over the world. Just during this year more than **70** challenges and opportunities were posted on the **ICN Solutions Platform**.

>300
CHALLENGES &
BUSINESS
OPPORTUNITIES
POSTED ON THE
ICN SOLUTIONS
PLATFORM

But ... What is the ICN Solutions Platform exactly?

A platform where cleantech businesses can find and engage in business opportunities from our ICN partners all over the world.

ICN Solutions users become part of an **ever-growing ecosystem** of innovative cleantech stakeholders driving the global green transition!

SIGN UP HERE!



CONTACT US

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