

INTERNATIONAL CLEANTECH NETWORK

GLOBAL NETWORK OF LEADING
CLEANTECH CLUSTERS



The Network

It is clear that the world has become increasingly connected at different levels over recent decades. The global challenges we face are now more complex and individual stakeholders are operating at their limits. Within the International Cleantech Network (ICN), we strive to set effective and lasting changes in motion by bringing together a variety of leading companies to accelerate cleantech development and implementation.

By working together, we make it possible to address challenges that individual clusters couldn't tackle alone. A recent example is the COSME project in the United States and China permitting all SMEs from the network to participate in matchmaking missions. ICN is also a proud partner of the C40 City Solutions and a founding member of the World Alliance for Efficient Solutions, a Solar Impulse Foundation initiative that seeks to identify 1000 climate "ecological and logical" technological solutions. Another recent initiative is the creation of ICN Challenges, where ICN partners with innovation seekers to identify solution providers from amongst the network. These opportunities provide springboards for cleantech companies expanding into international markets by providing global visibility, identifying major clients, complementary expertise or strategic partners.

Our transnational structure and our coordination mechanisms means that each cluster within ICN can make an effective and successful contribution to the success of the entire network. Cluster-to-Cluster task forces are an effective and innovative "coopetition" instrument that allow best practice sharing, access to benchmarks and gives each individual organization ideas to bring back to their region and the inspiration to achieve their own objectives.

While time is running out to achieve the Sustainable Development Goals, it is important to leverage even more the ICN multiplier effect to accelerate cleantech deployment regionally and internationally.



Denis Leclerc, Chair of ICN

Who we are

The International Cleantech Network (ICN) is a global network of 13 cleantech clusters, with the secretariat based in Copenhagen, Denmark.

ICN clusters are 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 on the international forefront of sustainable energy and environment industries and provide innovative technologies to meet the growing global demand for green technologies and sustainable solutions.

Through membership of ICN, cleantech clusters can provide opportunities for businesses to expand their network and associate with project owners outside of their region, enabling efficient solution implementation on a global scale.

OUR MISSION

ICN enables the world's leading cleantech clusters and their regional ecosystems to collectively develop and implement sustainable solutions that contribute to and stimulate the global green economy.

KNOWLEDGE SHARING

ICN supports knowledge sharing by sharing news and opportunities amongst its members regarding business tenders, project challenges and other opportunities.

PROJECT DEVELOPMENT

ICN facilitates project development through identifying project opportunities, creating consortia and supporting the writing of applications for projects.

INTERNATIONALISATION

ICN promotes internationalisation through matchmaking between companies, access to the ICN passport service (which is a one-stop entry for companies and clusters wishing to penetrate foreign markets), and partnerships with major organisations such as the C40 network and the World Alliance of Efficient Solutions.

ICN ACTIVITIES

ICN is an active network that offers a variety of services that enables SMEs and other cluster members to create business opportunities, expand their network, share knowledge and meet international partners.

ICN PASSPORT SERVICE

ICN clusters and local members of ICN clusters (cleantech companies, universities etc.) can benefit from the ICN Passport as a way to explore business opportunities abroad, meet new partners, and expand their network. An applicant for the ICN Passport can connect with local key contacts and request assistance when seeking the right project partners or business opportunities at a local ICN cluster in the targeted region. The applicant can expect welcoming offices and be hosted at the work place of another cluster. In 2017, 15 ICN companies applied for the usage of the ICN Passport, and 37 companies applied for the C40 city solutions platform. In 2018 and 2019, matchmaking missions are planned for European cleantech companies to go to New York (US) and Nanjing (China) to support local cleantech projects.

PROJECTS & EVENTS

In 2017, ICN facilitated 3 project submissions involving ICN members: The COSME project, DIXHEAT for retrofitting district heating systems, and Switch Africa Green for cluster development in South Africa. The COSME project application successfully resulted in a grant of 450.000€ for five ICN clusters, whereas the Switch Africa Green project was put on the EU Commission's reserve list. Last year, ICN co-organised cluster workshops and networking events in New York City and Barcelona to share best practice amongst the clusters. ICN has held annual meetings in South Africa, France, and the United States providing a physical context for clusters to meet, to learn new expertise and to share business opportunities.

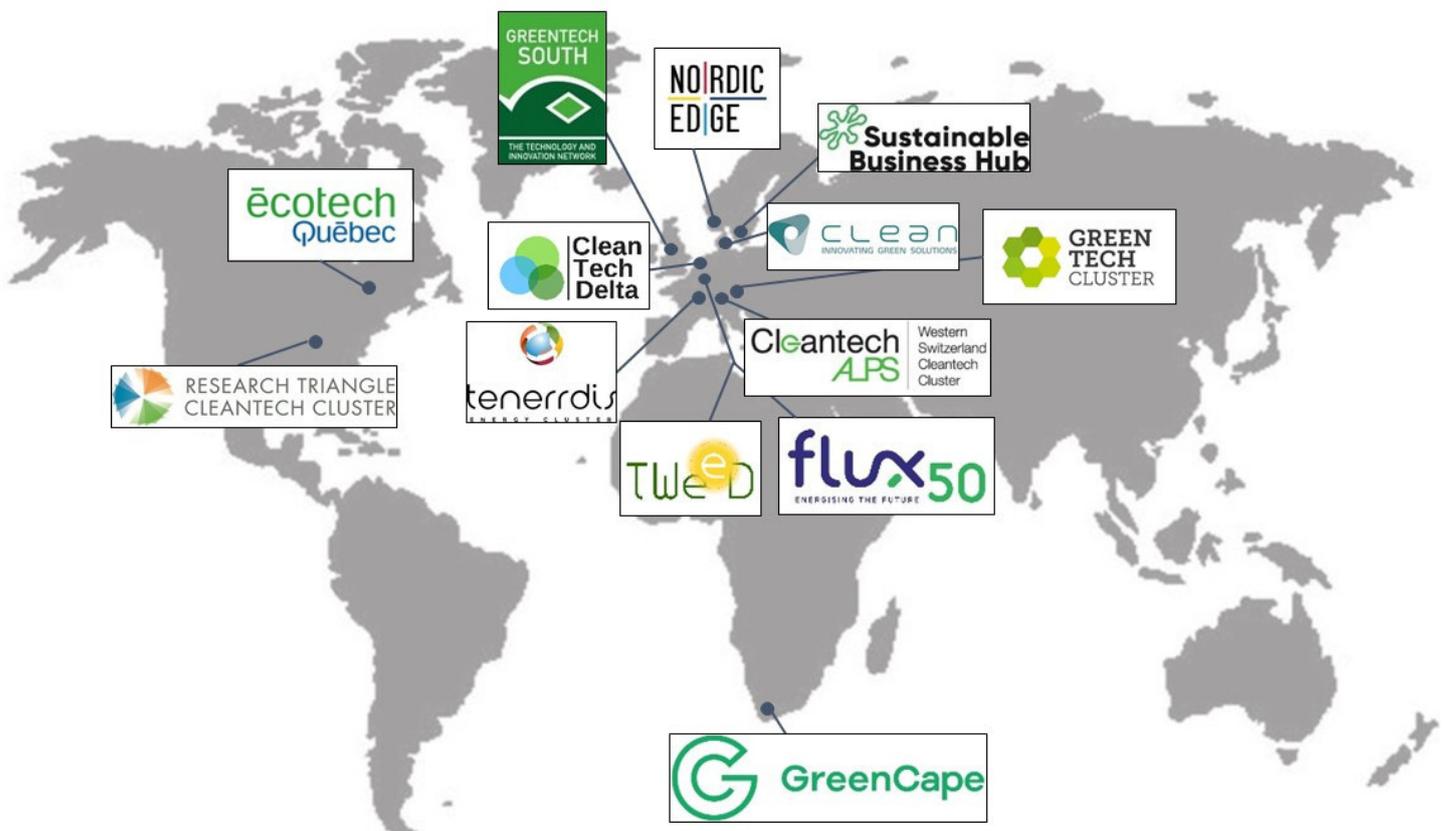
PARTNERSHIPS

ICN strives to develop partnerships that provide access to a wide array of opportunities. Our latest partnerships are with Urban Future Lab based in New York City and with the World Alliance for Efficient Solutions, an initiative established by the Solar Impulse Foundation.

ICN MEMBERS

Meet our cleantech clusters

The members of ICN are characterised by a cross-sector setup that involves SMEs and other stakeholders from various industries such as water, waste, energy efficiency, renewable energy, smart cities, sustainable building and construction, etc. Together, the ICN clusters mobilise a large variety of cleantech ecosystems. ICN members meet on a regular basis, know each other personally and have developed mutual trust and confidence, all of which are key to the organisation's activities. ICN's 13 members represent the world's leading cleantech regions, together mobilising a large variety of cleantech ecosystems. In total, ICN connects well over 1300 organisations consisting of businesses, public authorities, and research institutions. Each cluster represents businesses and knowledge institutions that are leading within their field of cleantech, providing the ICN network with valuable expertise.



ICN MEMBERS

Meet our cleantech clusters

CLEAN (Copenhagen, Denmark) serves as a hub for the Danish cleantech ecosystem and connects its stakeholders with relevant partners. Members of CLEAN consist of private companies, knowledge institutions and public authorities. CLEAN aims to facilitate projects and activities between their members with the purpose of creating innovative solutions. CLEAN has around 160 members who represent the Danish cleantech industry and work within four focus areas: smart energy, smart city, environment and internationalisation.

As Denmark's leading cleantech and Smart City cluster, CLEAN has taken the lead in supporting the Nordic Smart City stakeholders. Every year, CLEAN is responsible for hosting the Nordic Smart Cities Event at the Annual Barcelona Smart City Expo, creating the perfect platform for sharing the newest developments within the smart city sector and nurturing business opportunities for companies focusing on smart city. CLEAN is also responsible for leading the two major innovation networks, INNO-Smart Energy, and INNO-cleantech thereby stimulating innovation and business opportunities for all Danish businesses, public authorities and research institutions with a focus on implementing sustainable solutions in Denmark.



*Michael Johansen,
Head of Business Development*



ICN MEMBERS

Meet our cleantech clusters

In 2017 CleantechAlps launched the Swiss portal for cleantech start-ups, the first database that lists and presents all Swiss start-ups (more than 200) in the energy and environmental technology sectors. CleantechAlps is also in charge of the of the Swiss Cleantech Report – the official publication for cleantech in Switzerland. This publication illustrates Switzerland's excellent framework for environmentally friendly technologies in terms of research and development, economic implementation and attractive funding options.

Each year, CleantechAlps participates on several review boards (e.g. Prix SUD), supports the International Climate Show, a major event in Switzerland dedicated to industrial technologies and solutions for the protection of the climate and the reduction of carbon emissions, and is active in concrete actions outside of Switzerland. For example, in 2018 CleantechAlps fostered the launch of a self-consumption photovoltaic power plant in Morocco.

Thanks to its relationships with investors and specialised media (e.g. Efficiencie21), CleantechAlps aims to give both high and valuable visibility to its members.



"Sharing good practices and experiences with leading clusters worldwide allows us to offer new opportunities and services with better visibility for our members. Thanks to the closeness of ICN members and the secretariat, it is easy for us to find the right contact and the support needed for our companies." - **Eric Plan, General Secretary**

ICN MEMBERS

Meet our cleantech clusters

Clean Tech Delta (Rotterdam, the Netherlands)

Universities, knowledge institutes, cities and companies join forces to select and initiate repeatable and scalable cleantech initiatives that often involve new combinations of know-how and partnerships in the region Delft – Rotterdam – Drechtsteden. Additionally, Clean Tech Delta promotes this region through participation in international networks and project consortia.

Clean Tech Delta is active in the process of originating, selecting and initiating projects. We strive to make every project sustainable and impactful. Our network of members and partners brings different capabilities to the table. Projects typically fall within our focus areas of circular economy, energy transition and Smart City (and Industry).



*Fred van Beuningen,
Executive Director*



ICN MEMBERS

Meet our cleantech clusters

Écotech Québec (Québec, Canada) mobilises key players of the green economy to create the most favourable conditions for the development and growth of companies and encourages end-users to increase the deployment of clean technologies. Their four main lines of action are: providing knowledge and expertise, increase networking amongst industry players, boosting company recognition and public policy. Écotech Québec focusses on green energy & energy storage, water and waste management, agriculture, green chemistry, and resource and material efficiency.



“Being a member since the very beginning of ICN, I have the pleasure to see the evolution of this international network, bringing more and more opportunities and benefits to our members. ICN allows Québec cleantech entrepreneurs to keep abreast with fast changing global markets, to position themselves at an international level and to benefit from ICN initiatives such as Passport to explore business opportunities worldwide.” -

Denis Leclerc, President and CEO

écotech
Québec

ICN MEMBERS

Meet our cleantech clusters

Flux50 (Brussels, Belgium) is the membership organisation that helps Flanders gain international recognition as a Smart Energy Region. Flux50 facilitates cross-sector collaboration between energy, IT and building companies to enhance the competitiveness of the Flemish smart energy industry in the transition towards low carbon systems. Flux50 brings together relevant players from industry, academia and government and provides them with project support, networking opportunities and a knowledge-sharing platform. Flux50 focusses especially on circular economy, energy transition and smart cities.

In 2017 Flux50 has realised 26 collaborative feasibility studies between its members, channeling 4.6 Meuro over 76 different member organizations. These projects have the aim to foster collaboration as well as to create business models between companies in order to create system innovations that are adapted to tackle the energy transition. In 2018, Flux50 foresees to mobilize 14 MEuro of subsidies, together with 20Meuro of company investments, in order to further mature these feasibility projects into tangible real world realisations.



"As one of the newest ICN members, Flux50 has felt accepted from the very first minute. Through the ICN network, members of Flux50 have been able to join international matchmakings with cluster organizations, as well as companies from America, China and Morocco" - Frederik Loeckx, Managing Director

ICN MEMBERS

Meet our cleantech clusters

GreenCape (Cape Town, South Africa) is the first greentech cluster organisation in South Africa and the only developing country member of the ICN. With over 1600 members, the cluster operates at the interface between business, government and academia to identify and remove barriers to economically viable green economy infrastructure solutions in developing countries.

Over the last 8 years, GreenCape has catalysed over US\$1.5 billion in greentech infrastructure projects in South Africa, which include work in energy, water, waste and sustainable agriculture. Flagship projects include the multiple award-winning Western Cape Industrial Symbiosis Programme (WISP). The team also provides extensive technical and planning support to local municipalities in water, energy and waste. For instance, GreenCape designed and rolled out a feed-in-tariff equivalent system for South African municipalities, has played an active role in supporting companies during the widely-publicised drought, and has built an online municipal decision support tool for alternative waste treatment options.

Working with all levels of government, GreenCape has also delivered South Africa's first greentech special economic zone (SEZ).



"The ICN is a valuable resource, both to help us identify potential solutions for South Africa, but also to help GreenCape understand the rapid evolution of greentech internationally. Given tremendous efficiency gains and rapidly falling technology prices, the opportunity to understand global markets in real time is invaluable." - Mike Mulcahy, CEO



ICN MEMBERS

Meet our cleantech clusters

The Green Tech Cluster (Styria, Austria) is instrumental in the green innovation and consequent growth of 200 companies and research institutions forming a hotspot for green technology with 20 global leaders within an hour's drive away. The cluster provides support for R&D project development, open innovation tools, assessment of technology trends & market opportunities and establishing global contacts within the key strategic areas: Green Energy, Green Building and Green Resources.

In 2017 alone, the Green Tech Cluster has jointly initiated 35 innovation projects generated 1518 ideas within companies and successfully brokered 1161 targeted B2B contacts. This includes innovations that have already become established in the market, such a special drum for the safe collection of lithium-ion batteries, an efficient heating foil for heat delivery systems and green big data services. Since 2018 the Green Tech Cluster is co-leading the Green Energy Lab which is the leading innovation laboratory for green energy in Austria including more than 100 partners from Vienna, Lower Austria, Burgenland and Styria. Additionally, the cluster has been recently awarded with the highest possible score of 100 points for "excellent cluster management" and thus leads the worldwide list of 1000 audited clusters.



"The close collaboration between clusters, including industry leaders, innovative SMEs and research facilities, proactively practised by the International Cleantech Network over many years, creates outstanding opportunities for new projects and far-reaching cooperations" - Tobias Schwab, Deputy General Manager



ICN MEMBERS

Meet our cleantech clusters

Greentech South (Portsmouth, UK) is a triple helix cluster that focuses on supporting businesses in the low carbon, clean growth sector. Its aim is to establish a thriving, self-sustaining and Internationally recognised Environmental and Clean technologies Cluster for the South of England. Greentech South was the first Energy and Environment sector Cluster in the UK to achieve Bronze accreditation, and over 150 members have joined the cluster after seeing what they have delivered and how they can support business growth.

Greentech South has played an instrumental role in:

- Securing over £35 million of new investment into the low carbon economy
- Helping over 100 SMEs develop innovative new low carbon products and solutions
- Creating over 200 new 'high value' jobs and increasing regional productivity
- Organising conferences attracting over 1000 representatives of businesses and other key organisations

This effort has now been awarded in a collaboration with two other UK clusters in a £3.5 Million, UK Industrial Strategy funded initiative that will see the launch of Clean Growth UK, a new national green business innovation network, in early 2019.



*"As a relatively new cluster, our membership of ICN has been invaluable in assisting our development. It allows us to work with the best and provides exclusive import, export and collaboration opportunities for our members" - **Dr David Hutchinson, Director***



ICN MEMBERS

Meet our cleantech clusters

Nordic Edge Smart City Innovation Cluster (Stavanger, Norway) is a driving force between innovators, private companies and the public sector to create value and innovation in the companies, while developing qualitative and cost-effective smart city solutions for cities and communities.

The Smart City Innovation Cluster is the first of its kind in Norway and one of the clusters of the Arena Program, owned and operated jointly by Innovation Norway, The Research Council of Norway and Siva. The cluster pursues success in the five key areas of: Mobility, transformation, democracy, open data and sustainability.

Cluster cooperation help municipalities connect with the vendor side, whilst Municipalities on the other hand become more accessible as coalition partners and buyers. This is a business-oriented cluster where the players from across the different sectors help draw the region together in a common direction.

The cluster is organized under the Nordic Edge umbrella which is also the host of the Nordic Edge Expo, the largest Smart City conference and exhibition in the Nordics.



"ICN membership and cross-border collaboration is important to our work in stimulating the development of smarter cities and communities. As one of the leading players in the Nordics, the cluster is in a perfect position bridging cooperation between municipalities, academia and private companies." - Stig Finnesand, Director Smart City Innovation Cluster

ICN MEMBERS

Meet our cleantech clusters

RTCC (Raleigh, North Carolina, US) – The Research Triangle Cleantech Cluster (RTCC) is a membership organization that supports the cleantech economy of the greater Research Triangle region, which includes Raleigh, Durham, Chapel Hill, and other municipalities.

The region is home to 350+ cleantech companies, three Tier-1 research universities, and more than 69,000 professionals working to advance technologies in smart grid, water technologies, analytics, IoT, smart cities, advanced manufacturing, and energy efficiency. The Research Triangle region is the second-fastest-growing, cleantech cluster in the United States; is #1 in the US in cleantech patents per million residents; and has seen employment growth of 88% since 2009.

RTCC's work is focused on opportunities best solved through collaboration: Business Growth and Economic Development, Talent Attraction & Development, and Regional and Global Marketing.



“ICN has been a key factor in our cluster’s growth—first, contacting us in 2010 to educate our regional, economic development partnership on the cleantech industry; and when we launched RTCC in 2013, providing an immediate global platform to market the Research Triangle region’s cleantech assets. Our members and our organization have benefited from international matchmaking missions, learning best practices from other regions, and tangibly, in our members winning projects they would not otherwise have known about.” – Susan Sanford, Executive Director



RESEARCH TRIANGLE
CLEANTECH CLUSTER

ICN MEMBERS

Meet our cleantech clusters

Sustainable Business Hub (Malmö, Sweden) is Sweden's largest cleantech cluster, and leads Urban Magma, one of Sweden's flagship smart specialization initiatives.

Vera Park, a testbed for circular economy within Urban Magma, has generated a variety of new products and patents and is engaged in circular economy & waste management projects across 8 countries in Eastern Europe, Africa and South America.

SBHub also gives out the annual South Sweden Cleantech Award, recognizing companies with innovative, high-impact solutions to sustainability challenges.



“Sustainable Business Hub has been a member of ICN since February of 2016. Since joining, we have participated in three ICN-initiated projects that have translated into concrete value for our members. ICN's global reach has also enhanced the internationalization support services we can offer.” - Håkan Rosqvist, Managing Director



ICN MEMBERS

Meet our cleantech clusters

Tenerrdis (Grenoble, France) supports the development of new energy technology by facilitating collaborative innovative projects that help cluster member expand their business. Tenerrdis provides opportunities for small- to mid-sized businesses in existing new energy technology industries and promotes their member's technology expertise internationally. Tenerrdis has a special focus on solar, hydro and wind energy, biomass & biogas, hydrogen, energy grids & storage and energy efficient buildings.



"Proud to be an ICN member since the beginning, and committed both in its governance and in operational initiatives and projects, to better serve our members!" - Catherine Candela, General Manager



tenerrdis
ENERGY CLUSTER

ICN MEMBERS

Meet our cleantech clusters

Tweed (Liège, Belgium) is a Walloon organisation including 100 Enterprises active in the sector of sustainable energy. The business cluster plays a major role in the business development in the following sustainable energy areas: renewable energy sources, the implementation of processes allowing to achieve energy savings, energy efficiency and greenhouse gas reduction in industry and the tertiary sector, and the development of green products and services for industry, the tertiary sector and individuals.



*"A cluster like TWEED gathers energy/environmental players in a regional network (Wallonia/Brussels in Belgium), and I strongly believe that it's a key issue for the clusters to be connected at an international level to enhance cooperation across borders between the clusters themselves and its members." - **Cédric Brüll, General Mana***



WAY FORWARD

The future of the network

In line with the ICN strategy for 2018-2019, ICN is now shifting its focus from project development for the clusters to SME support and internationalisation. Subsequently, ICN has recently launched the initiative called “ICN Challenges” allowing for clusters to identify and share locally based projects and tenders with SMEs from other ICN clusters. The objective is to source relevant solution providers amongst all members of the network for a specific project in the home regions of the ICN members.

ICN will actively support and promote the COSME project in the United States and China throughout 2018-2019, allowing for all SMEs from the network to participate in the matchmaking missions. Further, ICN will continue to engage with the C40 network and connect SMEs from ICN clusters with the new C40 City Solution Platform challenges that are expected to be launched in the spring of 2018.

In addition, through a partnership with the World Alliance of Efficient Solutions, SMEs from ICN have access to the World Alliance’s “1000 Solutions” which will be presented at the United Nations’ COP 24 meeting by the end of 2018.

ICN Solutions is a recent ICN concept which ultimately seeks to leverage the size and spread of the network to produce a comprehensive innovation hub for industry. This brokerage point will bridge the gap between the innovators and the innovation requests of large industries, unlocking the potential of the network in the process.



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