



## Abstract

The establishment of ISO/TC 341 marks a significant shift toward global standardisation of the DHC sector, with implications for competitiveness, interoperability, and geopolitical influence. While Europe's consensus-driven approach contrasts with China's state-backed strategy, both are shaping the future of technical standards.

For Europe, active engagement in ISO processes is essential to safeguard expertise, avoid double standardisation, and ensure that international frameworks reflect decades of accumulated knowledge. Participation not only mitigates risks of market dependence and operational inefficiencies but also offers opportunities to integrate renewable energy, stabilise energy prices, and strengthen global leadership. EHP involvement in standardisation:

Certification and standardisation are essential in providing security and trust in DHC products used worldwide. They help ensure confidence needed for further investments in the sector. By upholding industry standards, they help increase transparency and guarantee the quality of district heating products on the market.

Euroheat & Power's direct involvement in standardisation dates back to 2007 when it launched its Certification Programmes (EHP001, EHP002, EHP003 and EHP004). These programmes cover the certification of straight pipes, flexible pipes, steel valves and eco-substations. They ensure confidence in the materials used for these products by enforcing compliance with EN standards.

This involvement in standardisation is supported by a dedicated certification board (composed of experts in standardisation who are active in various CEN technical committees), a taskforce which is responsible for the revision of the certification guidelines and for recommending new programmes and focus areas, and a standardisation working group which monitors developments at ISO level.

The association is a liaison member of relevant technical committees at both CEN/CENELEC and ISO. The memberships allow it to participate in various working groups, access documents and submit comments thus, actively contributing to the development of new standards and the revision of existing ones.

By focusing on the needs of the DHC sector at large, EHP has placed itself as a neutral party advocating for the development of standards that benefit the sector and contribute to achieving the climate goals. Its contribution to both organisations includes disseminating relevant information and helping identify and involve experts for various projects.

## ISO/TC 341: global standards for DHC

ISO/TC 341 was established in 2022 at the request of Standardisation Administration of China (SAC). Its scope covers standardisation in the field of Heat Supply Networks (HSN) and includes design, construction, integration, control and regulation based on heating and cooling supply pipeline systems.

This technical committee is tasked with creating international standards to develop low-carbon, energy-efficient, safe and smart heating networks. In doing so, it aims to contribute to goals such as ISO's Strategy 2030, the Paris Agreement and the United Nations' Sustainable Development Goals.

There are currently 17 participating members (with voting rights) and 20 observing members (can submit comments). Like at CEN level, ISO/TC the membership consists of national standardisation organizations (NSBs).

### **Implications for the European DHC sector:**

With the establishment of the ISO/TC 341, DHC standardisation will also take place at international level. Until recently, most of this work was done at European level by CEN/TC 107 which developed the product standards that form the backbone of the sector in Europe.

Standards such as EN 253 "Factory-made plastic casing pipes," EN 14419 "Surveillance systems" and nearly 40 other existing or under-development product standards highlight European expertise in this field.

The potential impact of ISO/TC 341 can be significant as standardisation has become a strategic geopolitical tool. The geopolitical dimension of technical standards is ever more evident as the ability to influence standards is essential to drive competitiveness. It can no longer be confined to the scope of technical experts and engineers. Standard-setting plays a central role in shaping global trade, innovation and interoperability while guaranteeing coherence and credibility.

Europe and China have fundamentally different approaches to standardisation. While Europe's is based on consensus building, China's involvement is supported and financed by the state.

With its "China Standards 2035" strategy, China has positioned itself as a standards-developer. Consequently, its influence in international standardisation has increase dramatically in the past two decades. In concrete terms, while national standardisation bodies (NSBs) in Europe are finding it increasingly difficult to engage experts to participate in projects, China continues to expand the number of secretariats it holds at ISO level and being decisive in setting standards for different sectors.

A lack of European engagement can have long lasting consequences for the sector and greatly impact the quality of the standards being developed at ISO level. DHC stakeholders cannot afford to be left outside looking in.

ISO standards often have a trickle down effect and end up being incorporated into EN standards. Additionally, having two sets of standards based on completely different approaches, can result in higher operational costs for manufacturers and service providers while creating confusion in the market. Operators may be confronted with changes in compliance requirements, system compatibility constraints, and potential dependence on non-European equipment and digital platforms, impacting their success in calls for tenders. Accordingly, manufacturers may lose market relevance and become reliant on foreign systems and standards which may undermine Europe's position.

On the other hand, engaging with the development of the ISO/TC 341 standards can benefit the sector by:

- lowering operational costs while preserving reliable systems,
- encouraging constant improvements of standards for systems and installations,
- supporting new developments based on clear frameworks,
- promoting energy price stability with long lasting heat networks,
- better integrating renewable energy which can promote improvements in air quality,
- ensuring the resulting standards reflect the expertise and knowledge accumulated over almost four decades in Europe.

## **Engagement is key!**

ISO has approved the DHC standardisation project ISO 25618-1, an initiative that holds significant relevance for Europe. This project aims to create a comprehensive document for DHC systems. It will consolidate established European standards as the EN 13941-1 with local ones. New projects are also expected to start in 2026 which will require experts in various fields such as substations, water quality and flexible pipes.

Active participation from DHC experts is essential. It ensures diverse expertise and seamless integration of best practices from various regions. Additionally, it prevents double standardisation, namely overlapping and conflicting requirements that create confusion and result in increased costs.

A competitive edge is not achieved through inferior quality only. It is misleading to assume that Chinese products are inherently lower quality. In many cases, companies also compete through high-quality outputs, efficient project execution, and streamlined procedures.

China does not necessarily intend to flood European markets with cheap, low quality products. The real danger for the European DHC sector, is the development of standards which will affect its stakeholders but may not have their input or take their specific needs into account.

The ISO/TC 341 standards will be developed and subsequently published, with or without their participation. It is, therefore, in Europe's interest to be part of the process and share its knowledge and expertise to guarantee that the outcome reflects the high standards available in Europe and support their vision for the sector.

## **Next steps**

ISO/TC 341 members have been working together on several projects and are currently preparing for the launch of new ones in 2026. This process requires the input of experts in different fields. European countries have demonstrated greater commitment in this process in 2025.

They must keep the momentum and increase engagement to guarantee that EN standards are included in the foundation of the ISO/TC 341 standards, avoiding double standardisation.

To do so, NSBs need the support of the industry not only in terms of experts but also financing. Unlike in China, European NSBs are not subsidised by their governments. Instead, they depend on sponsorship from companies and associations to participate in projects, both at CEN and ISO levels.

All European stakeholders (manufacturers, service and equipment providers, energy companies, local municipalities, etc.) are encouraged to support their NSBs by financing projects and allocating experts to both CEN and ISO technical committees.

Only by treating standards as critical implementation tools, can European countries guarantee informed decision-making that benefits the global DHC market. ISO/TC 341 will greatly benefit from input by experts from around the world as the standards will have a global reach.

The time to act is now! Participation during the development of the standards will create the confidence needed for investment, innovation, and long-term sustainability of the sector.

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