



**THE ITALIAN HVACR  
EXPERIENCE**

**A CONTRIBUTION TO ACHIEVING UN'S 17  
SUSTAINABLE DEVELOPMENT GOALS**

**Wednesday, 6 November 2019 | 18:00 - 20:00 | Austria room**

Assoclisma is the Italian Association of Heating, Cooling and Ventilation systems manufacturers. Born in 1964 with the name Co.Aer, Assoclisma is an independent association, belonging to the Anima Federation, which represents various product groups including heat pumps, water chillers, condensers, fan coils, air handling units, fans, aerotherms, heat exchangers, cooling towers, air distribution and diffusion components, air filters.

Assoclisma is member of EUROVENT, EHPA and APPLiA (ex CECED Europe).



## ASSOCLIMA NUMBERS

- **63** associated companies
- **7.200** employees
- **2.155 MILIONS** total turnover
- **30% EXPORT/TURNOVER**
- **More than 85%** of the major companies of the sector are represented by Assoclisma



# Our companies



Inside Assoclimate the **Italian heat pumps group** has a strategic role. The most important aim of the group is to **contribute to the development of heat pumps technology**, having effects on legislations as well as on public opinion.

For the HVACR sector the last year ended with positive figures.

The sectors linked to **renewable thermal sources**, in particular heat pumps, have grown.

In the National Integrated Energy and Climate Plan (PNIEC-in Italian) a very important role is given to the thermal sector to achieve the objectives by 2030.

Italy is asked to face a **technological change towards electrification** and towards solutions that further the **penetration of renewable sources** and the **decarbonization**.

To estimate the development required by the PNIEC target scenario for heat pumps used as the main heating system in the residential and tertiary sectors from 2018 to 2030, it is assumed that the systems used for this purpose have 1500 hours of operation and that they continue with the same trend as in the years prior to the growth in the installation of systems used for cooling only.

On the basis of these assumptions, **the overall growth of the stock of installed capacity of heat pumps for heating needed to achieve the objectives from 2018 to 2030 is 32 GWt** (from 33 in 2017 to 65 in 2030).

The additional 32 GWt are expected to **induce investments of around EUR 9,6 billion over 13 years**, with an average of 750 million per year, with **positive effects on the economy and employment**. Achieving the PNIEC targets by 2030 will require a doubling of the heat pump penetration rate.

The next years will be crucial.

Thanks to heat pumps, through heating with renewables sources and cooling with sustainable refrigeration we can achieve several SDG's goals:

- **affordable and clean energy**
- **responsible consumption and production**
- **climate action**

and as a consequence **sustainable cities and communities.**

### FAO SUSTAINABLE DEVELOPMENT GOALS



HVAC equipment manufacturers represented by Assoclimate are ready from an industrial point of view and have the tools to make the necessary investments to increase their production.

On the market are now available equipments that uses **non climate-changing refrigerant fluids**.

Furthermore all the companies are now aware of the complete recyclability of products.

**The Italian experience:** in the HVACR sector Italian manufacturers represent an excellence especially regarding **hydronic systems**.

## **Hydronic heat pumps are a leader technology in Italy.**

The use of water has advantages compared to other fluid because it's ecological and any loss does not imply toxicity or pollution.

Other advantages of hydronic heat pumps:

- Flexibility of the life cycle in HP systems;
- Heat recovery -> system efficiency and performance optimization.

# The Italian HVACR experience

The European heat pump market continues growth. Compared to 2017, 139.610 (+12.5%) more heat pumps have been installed in 2018. With 1.26 million units sold across Europe yet another sales record has been achieved. Assuming a life expectancy of approx. 20 years, the current European heat pump stock amounts to 11.80 million units (cumulated sales from 1997 – 2018).

Focusing on the various heat pump types, reversible air/air (51 223, 10.5%) and **air/water** (13 357, 12.4%) systems contributed most to the overall gains.

Table 4-1: Heat pump sales in EU-21 countries (Air/air data adjusted according to EHPA methodology, cf. Annex I). Relative changes compared to the previous year in brackets.

	EU-21	AT	BE	CZ	DK	EE	FI	FR	DE	HU	IE	IT
Space heating	1 086 929 (12%)	20 565	11 376	18 689	49 653	16 760	64 141	168 435	84 100	300	4 748	188 681
→ Hydronic distribution	467 784 (15%)	20 270	8 900	18 624	9 713	3 030	13 019	90 499	84 100	300	4 689	39 400
Air/water	369 258 (18%)	14 862	7 028	16 977	7 403	1 280	5 024	88 002	60 700	-	4 398	38 717
Water/water	9 704 (3%)	636	1 872	81	-	20	-	1 257	2 200	50	7	683
Brine/water	84 699 (5%)	4 002	-	1 566	2 310	1 730	7 995	680	18 900	250	284	-
Direct expansion/water	1 710 (-3%)	770	-	-	-	-	-	560	-	-	-	-
Others	2 413 (-14%)	-	-	-	-	-	-	-	2 300	-	-	-
Exhaust air	25 257 (4%)	295	-	65	2 259	30	3 202	-	-	-	59	-
Air/air	2 161 (47%)	295	-	-	1 807	-	-	-	-	-	59	-
Air/water	23 096 (2%)	-	-	65	452	30	3 202	-	-	-	-	-
Air based distribution	593 888 (11%)	-	2 476	-	37 681	13 700	47 920	77 936	-	-	-	149 281
Air/air (no correction)	3 421 541 (13%)	-	61 565	-	37 681	13 700	47 920	574 810	-	2 850	-	1 350 618
Air/air with heating function*	538 550 (11%)	-	-	-	37 681	13 700	47 920	54 607	-	-	-	128 309
VRF/VRV	55 337 (15%)	-	2 476	-	-	-	-	23 329	-	-	-	20 973
Sanitary hot water	160 683 (14%)	5 218	5 323	203	165	-	-	103 879	15 000	-	140	4 748
Heat Pump water heaters	145 425 (15%)	5 218	5 323	203	-	-	-	103 879	-	-	140	4 748
Exhaust air	15 258 (9%)	-	-	-	165	-	-	-	15 000	-	-	-
District heating	11 (175%)	-	-	-	-	-	3	-	-	-	-	-
Industrial heat pumps	674 (-9%)	105	-	-	-	-	4	-	-	-	-	-
Thermally driven heat pumps	95 (1088%)	-	-	-	-	-	-	-	-	-	-	-
Hybrid heat pumps	9 804 (1%)	-	-	-	-	-	-	2 800	-	-	-	7 004
<b>TOTAL HP SOLD</b>	<b>1 258 196</b>	<b>25 888</b>	<b>16 699</b>	<b>18 892</b>	<b>49 818</b>	<b>16 760</b>	<b>64 148</b>	<b>275 114</b>	<b>99 100</b>	<b>300</b>	<b>4 888</b>	<b>200 433</b>
	<b>(12%)</b>	<b>(-2%)</b>	<b>(7%)</b>	<b>(21%)</b>	<b>(13%)</b>	<b>(0%)</b>	<b>(3%)</b>	<b>(12%)</b>	<b>(8%)</b>	<b>(-62%)</b>	<b>(0%)</b>	<b>(12%)</b>



[www.assoclimate.it](http://www.assoclimate.it)

[www.anima.assoclimate.it](http://www.anima.assoclimate.it)

[info@assoclimate.it](mailto:info@assoclimate.it)



Facebook: [Assoclimate](#)



LinkedIn: [Assoclimate](#)