THE EUROPEAN HVACR MARKET 2022

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2022 European HVACR Market Article for JARN

Europe

In 2022 European market for chillers above 50 kW continued a stable growth with +11%, reaching 1,653.2 million euros. This time the positive evolution was supported mainly by air cooled chillers that increased by +14%, while the water cooled units slightly diminished by -1%. As a result, the share of air cooled chillers in total European sales slightly increased and reached 80% in 2022.

Units with HFO refrigerants continue to replace the units with HFC, however this trend in 2022 was rather slow: units with HFO refrigerants gained only 3% of the market. At the same time inside units with HFC group the dynamic is more active with units with R32 grew by +11% mainly replacing R410A.

Chillers with multipipe, as well as with indirect integrated free cooling and the reversible units demonstrated in 2022 a very solid growth of over +30% each. Thanks to such a rocketing dynamic these 3 types of chillers accounted to almost 50% of the European market.

European AHU market speeded up its growth in 2022, reaching 2,86 billion euros with double digit increase. The sales evolution in units was more modest and even negative -around -2% for total Europe), meaning that the inflation and the price rise contributed a lot to the market value increase. The share of compact AHU grew by +10 p.p., constituting 59% of total sales in 2022. Otherwise, market structure remained stable without any significant changes.

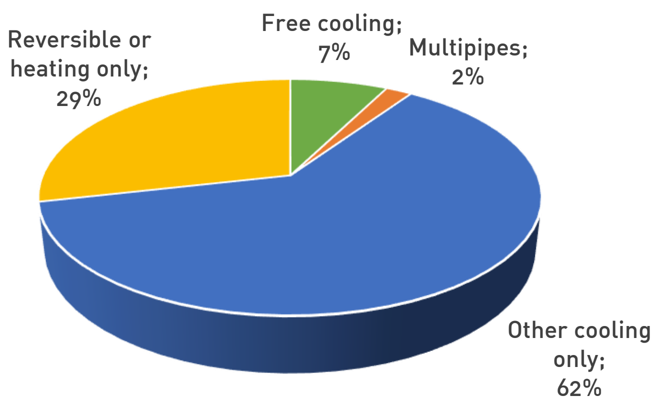
The sales of fan coil units also demonstrated a strong upturn of over 20%, totalling at 555 million euros in 2022. The high-wall units continued its record of the strongest progression with +38% increase, while the cassette units, the only one demonstrated the negative evolution, decreased by -5%.

France

In 2022 the demand for chillers in France subsided and the sales went down by -8%, moving France from the 1st to the 3rd place among the largest European market with 228,6 million euros. Both air cooled and water cooled chillers, making up 60% of the total sales, diminished by -9% and -6% respectively. Despite the overall downturn the small chillers 50 – 350 kW demonstrated +11% growth, while the larger units dropped.

As for cooling technology, chillers with indirect integrated free cooling in France enjoyed a significant rise in 2022: their sales grew four times in comparison to 2021. It's the highest growth rate for this technology in Europe, where the average increase made up only +29%.

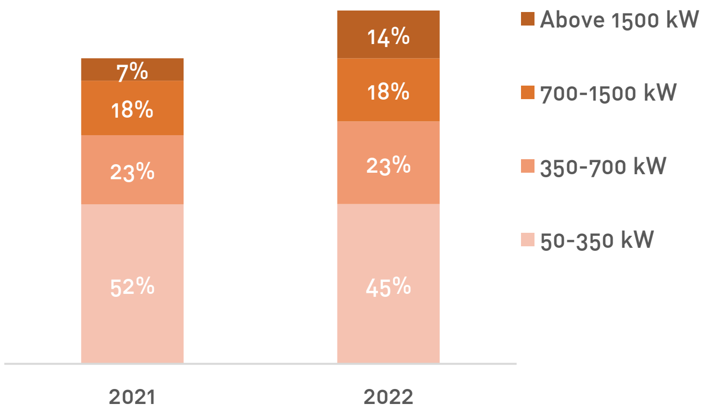
The switch to chillers with HFO refrigerants in France is stagnating. In 2022 the share of the units with HFO refrigerants and blends fell from 57% to 55%. The most important refrigerant for chillers among HFO in France is R1234ze decreased from 50% to 42% in total sales in 2022. Among chillers with HFC refrigerants the highest growth showed R32 with increase in its market share from 11% till 21%.



Sales of AHU in France demonstrated a strong growth of +19%, reaching 200 million euros, while the increase the FCU market was more modest, only + 9%, making 68, 9 million euros sales.

Germany

German chiller market continued its positive dynamics in 2022, reaching 249,8 million euros. The growth was mainly driven by large units above 700 kW that soared by +44%. Like last year the key contribution to this grow was made by very large units of over 1500 kW, that doubled its sales in euro. Air cooled chillers enjoyed lead with +22% increase, while water cooled units showed a modest single digit dynamic.



In terms of cooling technology, reversible or heating only units experienced the highest growth in Germany, + 90%, making up 21% of total sales.

Regarding the refrigerants, Germany demonstrated one of the fastest migrations from HFC to HFO chillers. The share of chillers sold with HFO, and blends refrigerants increased from 28% in 2021 to 42% in 2022, gaining 13 p.p. of market share from HFC units.

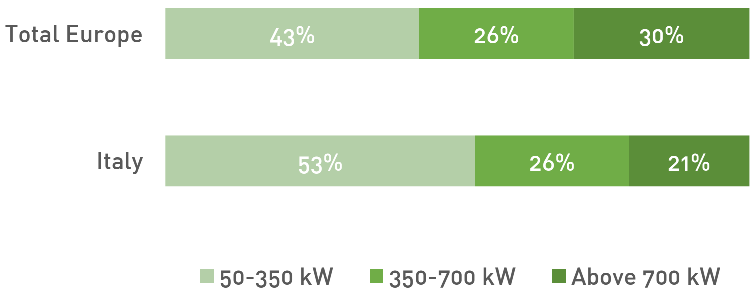
Among the large European chiller markets Germany has the biggest share in the units sold with magnetic bearing compressors. This trend persisted as in 2022 their sales are almost doubled, reaching the 15% of total chiller market in the country.

Having enjoyed a double-digit growth in 2022, Germany accounted for 19% of all AHU sales in Europe with 532,2 million euros. Fan coil market, less important in Germany, constituting only 9% of the total European market, also kept the growing track, reaching 50,1 million euros.

Italy

In 2022 the growth in Italian chiller market continued and accelerated with +20% increase, that allowed the country to become the largest European market for chillers ↑50 kW with 266,8 million euros sales. This success was supported by the prominent growth of air cooled units (+24%). All groups of chillers less ↓1200 kW enjoyed a double-digit increase in sales, while the demand for larger units diminished on average by -11%.

The chillers with indirect integrated free cooling, traditionally not widespread in Italy (only 3% of the market in 2022), enjoyed the second fastest growth in Europe with +150% increase in sales.



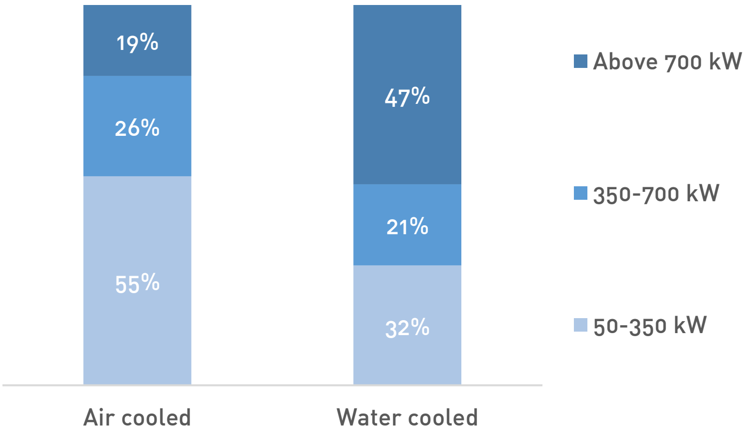
Chillers with HFC refrigerants kept their market share (85%) in 2022. R32 continued to gain the ground against R410A with 1,5 times growth, making almost one third of the total sales.

Still remaining the largest in Europe, Italian FCU market demonstrated a solid growth by+ 20% in 2022, making in total 157,6 million euros. Being the 5th largest European market, AHU market in Italy reached almost 154 million euros in 2022.

Spain

The sales of chillers above 50 kW in Spain in 2022 remained on the rise with +29% market growth, totalling at 117,7 million euros. This time both air cooled and water cooled chillers supported this increase with +23% and +48% respectively. The chillers of smaller capacity (50-350 kw) that account for slightly more than the half of the Spanish market, were a growth engine of this trend with almost +40% increase.

Following the European trend, the chillers with HFC refrigerants are losing their ground in Spain as well: in one year the share of units with HFC decreased by 5 p.p. to 73% in 2022. Inside HFC group R32 is confidently replacing R410A. Among HFO refrigerants, 2 most popular, R1234ze and R454B, took 21% of the market.



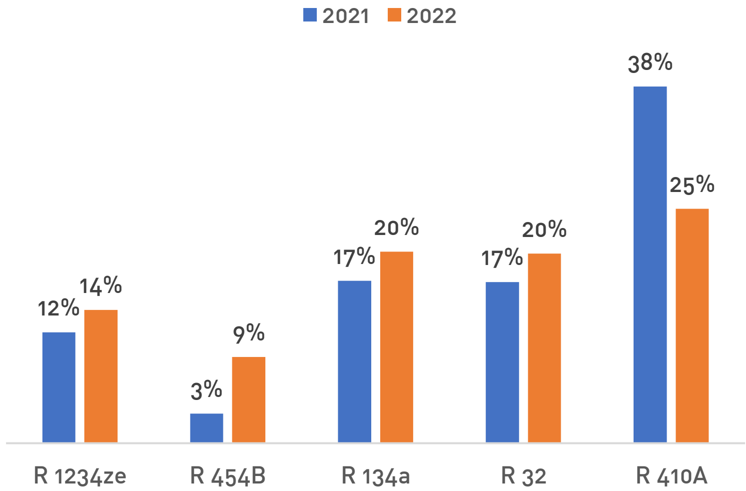
AHU market in Spain soared by +25% in 2055 to reach 118, 3 million euros. FCU sales also demonstrated the remarkable dynamic with the increase of more than +22% and total sales of 36,5 million euros.

United Kingdom

Among large European chiller markets, UK demonstrated the highest growth rate in 2022 with +31% reaching 178,8 million euros. This rise is equally supported by air cooled and water cooled units. The very large units over 700 kW with +57% increase was the leading power of this continuing expansion.

In terms of technology, it's worth noting an almost two-fold increase of sales of multipipe units, that accounted for 9% of the market in 2022, 4 p.p. higher than European average. Chillers with free cooling enjoyed the strong +57% growth and made 19% of the total sales, significantly more than average European (8%).

UK demonstrated the solid results of diminishing the share of chillers with HFC refrigerants by -8 p.p., to 67% in 2022. R407C and R410A lost their market share, while R32 and R134a even showed a noticeable growth (+61%).



Already strong in 2021, the AHU sales in UK speed up in 2022, showing the confident +20% increase, that allowed to reach 325,4 million euros sales. British FCU market demonstrated even more remarkable results, having grown by over 50% and making 49,2 million euros.

Russia

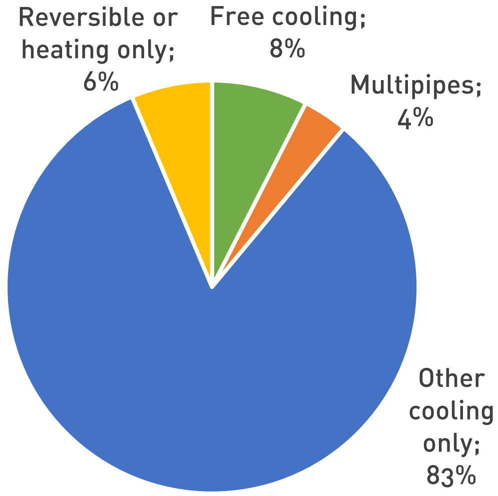
Unlike the most of other European countries, Russian chiller market suffered a steep decrease of around 30%, making only 45,2 million euros in 2022. Both demand and supply sides in Russia were impacted by the war in Ukraine. However, the decline was not as profound as it could have been expected, as from supply side, Russian manufacturers managed to cover some part of the ground abandoned by the European producers. From demand part, the industrial clients withstood, while the commercial customers constrained their demands and put on hold many projects.

Nevertheless, the share of the chillers with HFO refrigerants, supplied by European manufacturers, increased by around +7%, while those offered by Russian producers most probably remained HFC based.

Decreased in units by around -9%, but increased in value by +16%, Russian AHU market reached 171,2 million euros in 2022. FCU market after quite poor results in 2021, finally reached the level of 2020 with 18,6 million euros sales.

Turkey

After the impressive rebound in 2021, the uprise on the Turkish chiller market petered out in 2022. The sales of the chillers above 50 kW dropped by -16%, resulted in 70,2 million euros. The decline was pulled mainly by air cooled chillers, that constitute over 80% of the Turkish market and that fell by -23% in 2022. At the same time water cooled chillers managed to keep the rising dynamics (+10%), though it didn't save the market from overall drop. In terms of chiller capacity, the large chillers over 700 kW, that traditionally dominate the Turkish market, experienced the deepest decrease of over -25%.



The demand for usually rarely used reversible or heating only chillers in Turkey rocketed in 2022, that resulted in almost quadruple growth in this segment.

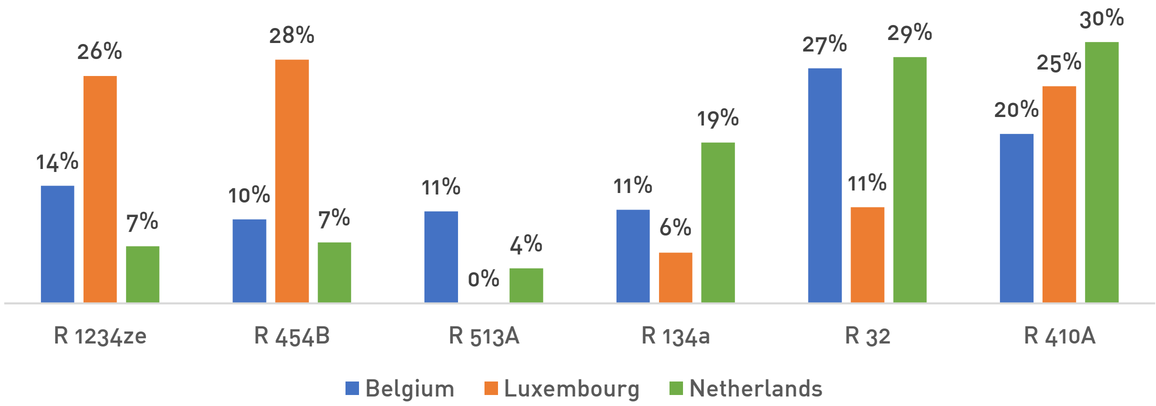
Regarding the refrigerants, there was no significant change in Turkey in 2022. The HFC chillers keep strongly dominating the market with R134a being the mostly used refrigerant (71%).

Turkey was one of the few European countries that experienced a fall by -6% on AHU market in 2022, having made 148,6-million-euro sales. The situation on FCU was more positive with +13% growth and almost 29-million-euro sales.

Benelux

Chiller market in Benelux regions accelerated, having increased by +19% in 2022, reaching 114,7 million euros in total. The growth was driven by air cooled chillers, that constitute 75% of Benelux chiller market. Water cooled chillers experience a small decline. All three Benelux countries demonstrated the positive evolution with the strongest in Belgium (+23%) and the weakest in Luxembourg (+5%).

The transition to HFO refrigerants is going on quite well in Benelux region. In 2022 HFC chillers lost 6 p.p. of market share, having decreased to 72% of total sales. The fastest switch took place in Luxembourg where the HFC chillers lost 12 p.p. of the market. Netherland remains the country in the region with the highest HFC chillers share (79% vs 59% in Belgum and 45% in Luxembourg).



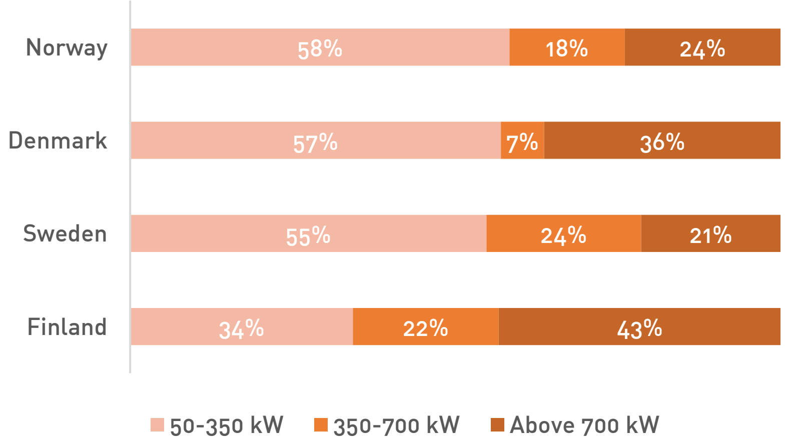
After the drop in 2021, 2022 was a good year for Benelux AHU market that returned to the growth track with +18% increase, reaching 167,2 million euros. Both largest markets of the regions, Belgium, and the Netherlands, enjoyed two-digit growth in 2022. The similar trend was observed on FCU market: sales in Benelux in 2022 grew by +11%, having made 17,7 million euros.

Northern Europe

The favourable market situation for chiller market in the Northern Europe continued in 2022. With one of the highest growth rates in Europe, +23%, the region achieved 75,1 million euros sales in chillers above 50 kW. Denmark, Finland, and Norway enjoyed two-digit increase with especially outstanding evolution in Finland, where the market almost doubled. In Denmark and Finland, the markets were driven by rocketing rise of the large chillers above 700 kW, while in

Norway the units of all capacities demonstrated a very solid double-digit growth. Sweden was the only one in the region who faced a decline for both air cooled and water cooled chillers.

The Northern Europe remained a leader in the market share of chillers with reciprocating compressors (11% vs 1% on average in Europe), mainly thanks to high representation of such compressor in two countries, Denmark, and Norway, where they account for around 20% of total chiller sales.



Another distinguishing feature of the Northern European chiller market is high in comparison to other European countries share of the chillers sold with natural refrigerants, 11% vs 1% on average in Europe. Besides, the share of HFO chillers is also higher than European average (39% vs 29% respectively), that makes this region one of the most advanced in terms of refrigerant transition on chiller market.

AHU market of Northern Europe continued its growing trend in 2022 with +17% increase, reaching 502,8 million euros. The evolution was positive in all 4 countries of the regions, with the fastest growth registered in Denmark and Iceland (almost +30%). The growth rate of the FCU market was even more spectacular, at +30% making total sales of 17,1 million euros. Here the key drivers were Finland with +28% increase and Sweden with +19% growth rate.

Conclusion

Almost all large European markets for chillers above 50 kW, except France, Russia, and Turkey, enjoyed a solid growth in sales in euro in 2022. This strong increase in sales in euro reflected to great extend the price rise on the market, as the evolution in units was significantly less positive often at only single-digit growth rates. The chiller market growth in units in 2022 was greatly impacted by the component shortage (especially in its first half of the year), that limited its rebound capacity. The forecast for 2023 remains positive as the component shortage problem subsides, meaning no more restrains to catch up with the postponed demand.

About Eurovent Market Intelligence

Eurovent Market Intelligence (EMI) is the European statistics office on the HVACR market. It provides key market data since 1994. The guiding principle of EMI is to establish a detailed map of the European, Middle Eastern and African market with the participation of the manufacturers in the data collections.

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