

# PolarCool AB PolarCap® soon next to every defibrillator in the world of sports

Andreas Eriksson | 2023-03-01 10:00

**With strong clinical evidence to treat the growing problem of Sports Related Concussions (SRCs), PolarCool offers the PolarCap® that is proven to reduce long term absence by up to 80%. With 38 systems installed on a subscription basis, including a league-wide agreement with the SHL, PolarCool targets 100 new deals in 2023, to be doubled annually in the following years supporting a target Market Cap of SEK 80m in 12-24 months. Adjusted for a further capital requirement this translates to SEK 2.3 per share. Long term, management is confident to reach 1500 systems installed by 2026, supporting close to a half billion SEK valuation.**

## One of a kind-solution on a growing market

The numbers of sports-related concussions are increasing in all contact sports, and the associated short- and long-term problems with it. SRCs are unique, as physical activity can increase body and brain temperature up to 40 degrees. If a concussion is sustained when an athlete has elevated brain temperature and thus energy demand, it can lead to an exacerbated brain injury. In recent years, the awareness regarding sports related concussions has increased markedly, and the need for improved treatments along with it. PolarCool has developed the PolarCap® System, to deliver an acute treatment to improve recovery and reduce the risk of long-term absence. In October 2022, significant positive data from a 5-year long clinical study was presented which has given PolarCool the clinical evidence necessary to propel their scale-up in Europe, as well as an expansion across the Atlantic once MDR and FDA approvals are in place. The clinical data alongside with the far along processes of MDR and FDA approvals, makes the PolarCap® unique on a market that is growing rapidly, where the company's ultimate aim is for the PolarCap® to be positioned alongside the defibrillator as a necessity in the sports environment.

## Financial gains in addition to health benefits

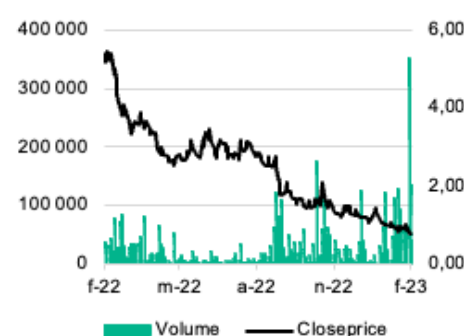
The main purpose of PolarCap® is to reduce the medical trauma and suffering caused by a head injury. But from an economic point of view, considering that major league sports teams invest heavily into their players, PolarCool also offers meaningful financial benefits. In ice hockey for example, an average player in the NHL makes 3.5 MUSD per year which equals about 20,000 USD per active day. While the clinical study showed that the return to play could be shortened from 13 to 9 days, this equals a 80,000 USD saving for the team.

## MDR and FDA approval unlocks full potential

PolarCool already have ongoing 24-36 months subscription contracts with European teams within ice hockey, rugby, football and handball which provides steady recurring revenues with an assumed minimal churn. To ramp up even further, clinical evidence alongside with MDR and FDA approvals are the key factors. Management is confident to deliver 100 new systems in 2023, and reach about 700 systems installed in 2025 and 1500 in 2026. The nature of the business model makes PolarCool rather capital intense, before reaching a state where the installed base supplies big enough cash flows to finance further rollout, something we expect to happen in 2026. Should management reach its growth goals target multiples of 2x Sales'25 and 15x EBIT'26 support a target Market Cap of SEK 80m in 12-24 months. Adjusted for both the upcoming rights issue of SEK 7.4m and further capital requirement this translates to SEK 2.3 per share.

## PolarCool

Current Price, SEK	0,67
Shares, millions	24,6
Mkt Cap, MSEK	16
Net Debt, MSEK	-1,3
EV, MSEK	15
Market	Spotlight



## Financial Summary

MSEK	2021	2022E	2023E	2024E	2025E
Revenue	2	3	5	15	36
EBITDA	-6	-9	-7	-9	11
EBIT	-7	-11	-11	-19	-11
EPS Adjusted	-0,71	-0,86	-0,45	-0,61	-0,37
Sales Growth, %	-	9%	105%	182%	133%
EBITDA Margin, %	-227%	-322%	-137%	-56%	31%
EBIT Margin, %	-290%	-397%	-203%	-121%	-32%
EV/Sales	3,5	3,3	1,6	0,6	0,2
EV/EBITDA	-1,6	-1,0	-1,2	-1,0	0,8
EV/EBIT	-1,2	-0,8	-0,8	-0,5	-0,8
P/E	-5,5	-1,0	-1,6	-1,2	-1,9

Source: Emergers

### PolarCool in brief

What started as a spinoff from BrainCool, PolarCool is a medical device company based in Lund, Sweden. The patented product, the PolarCap® System is used as a controlled cooling treatment for concussions and repeated head collisions. The aim is to provide athletes the opportunity for acute concussion treatment, something no other company currently offers.

### A growing problem gaining attention

While a lot of rule changes have been made to mitigate player injuries especially in sports using helmets as part of the equipment, the sheer number of concussions are steadily growing. It is a topic however, that has gained a lot of attention in the last decade. North American major leagues like the NHL (ice hockey) and the NFL (American football) as well as rugby leagues all across Europe all have implemented concussion protocols. The world of football witnessed an increased focus on the potential severe medical condition, as seen by anyone watching the latest FIFA World Cup in Qatar, there was a lot of focus on head-related injuries with new rules in place. At these events in the World Cup the game was paused, the injured player forced off to undergo a quick evaluation. Another example of the increasing awareness is actor Will Smith's movie *Concussion*, which highlights this issue within the NFL, and how untreated concussions lead to problems with physical skills, headaches, balance issues and in some cases dementia.

## The PolarCap® System



Source: PolarCool

In most cases the symptoms disappear after about ten days, and after a few months most are completely recovered. In some cases however, especially after repeated concussions occur, athletes may suffer from impact syndrome, a

pathological response of the brain that can be life-threatening if not treated immediately.

Besides human suffering, which is difficult to measure in monetary terms, there are other ways to assess the losses associated with SRCs. Sports teams invest heavily in their players, for them to perform and contribute to the team's sporting success. A player's absence can easily be translated into monetary terms. PolarCool's own calculation found that a hockey team in the Swedish Hockey League (SHL), saved about SEK 300,000 in reduced days of absence.

Supported by feedback from several team doctors at the UEFA Medical Symposium there is no other device for immediate treatment of head injuries than the PolarCap® System. The MDD approval combined with strong clinical evidence from the five year long trial and far along processes of MDR and FDA approvals, puts PolarCool in a really strong position going forward.

### Strong clinical evidence

There has been an interest to use hypothermia for treating various CNS-disorders in clinical environment for a long time. In clinical trials made in China, no clinical improvement was obtained through whole-body cooling. However, a selective brain cooling study in rats showed reduced intracranial pressure and other beneficial outcomes, as well as improved cognitive function.

Treatment with PolarCap® System has been evaluated in a 5-year clinical trial, conducted by Lund University in collaboration with the Swedish Hockey League (SHL). In October 2022, the result was in the Journal of Neurotrauma and demonstrated that long-term absence (more than three weeks) was reduced by almost 80%. The study included a total of 132 cases of confirmed SRCs, where 61 were treated with the PolarCap® System, and the other 71 were receiving standard management. The median time for return to play was 9 days for the treated group, compared to 13 days for the untreated.

The positive results have opened doors to look at neck injuries such as whiplash, where there are strong indications that the PolarCap® could have a positive effect. In a broader perspective, rehabilitation centres could potentially provide another expansion opportunity. The results have also enabled a potential fast-track to the US market, where the company in October 2022 changed its strategy now working towards a De Novo approval for the PolarCap® System.

### Return to play – 132 cases

Days absent	Treated with PolarCap	Not Treated
14 days	25%	44%
21 days	7%	30%
35 days	0%	23%
100 days	0%	10%

Source: PolarCool, Emergers

### Massive addressable market

PolarCool already has the PolarCap® installed in sports like ice hockey, rugby, football and handball in several European countries, but because of the strong clinical results, any sport with some sort of risk to head injuries should look at this type of solution. Away from the sports listed above, there are obvious candidates like boxing and other martial arts, American and Australian football, but also alpine and motorsports.

Taking football as an example, there are almost 4,000 professional teams globally, and about 1,000 of them are housed in Europe, posing a huge market opportunity. Also looking at Swedish ice hockey, there are a total of 164 teams in the four highest divisions, providing an opportunity for recurring revenues of SEK 11,5m per year in Swedish hockey alone. Considering the positive effects, not least financially and the financial muscles of many sports clubs dispose, the barriers to invest in tech like the PolarCap® shouldn't be too high.

### A business model with stable recurring revenues

Sports teams and arenas rent the PolarCap® System on 24-36 months long contracts, meaning PolarCool receives predictable and stable recurring revenues at an estimated minimal churn. 18 months ago, this type of business model would have justified target multiples of 15-30x EBITDA, which has become rarer in the sector downturn the last 12 months. This business model is however more capital intense compared to selling the systems upfront, which should grow the balance sheet. But as of yet, we can't tell to what extent this will affect PolarCool's further scale-up.

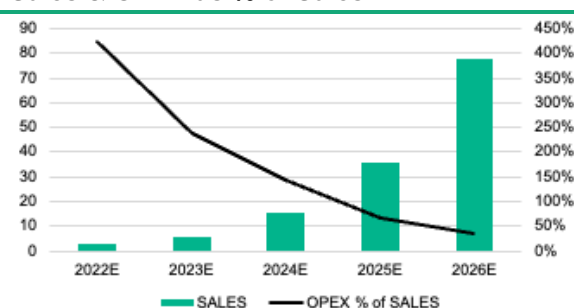
### US entrance marks acceleration in our forecast

As the company expects 150 installed systems to cover the current cost base of about SEK 11m, we assume a yearly fee of about SEK 70,000 per system. The CEO indicated in late 2022 that 100-150 installed systems are a reasonable goal to aim for in 2023, with an annual doubling in the following years.

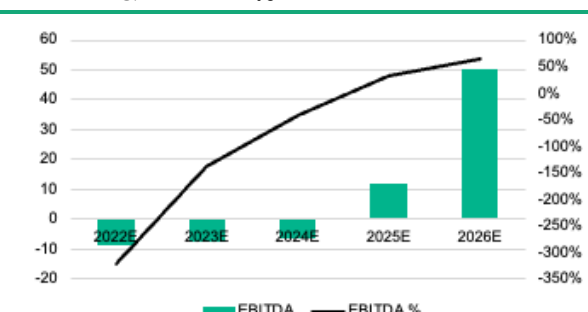
To accelerate the rollout even further, we believe PolarCool needs to make an entrance into the North American market, as the sports-related concussions in sports like ice hockey, lacrosse and American football, really is gaining attention. Operating on a market where clinical validation is of the highest importance, to expand over the Atlantic, we deem a MDR and FDA-approval to be necessary.

Estimating an installed base of 738 systems in 2025E and 1538 systems in 2026E, would translate to sales of SEK 35.8m and SEK 77.5m respectively, where we periodize each new system and its associated revenue by 40%. PolarCool looks to finish the MDR-approval process sometime in H2'23, and to have the FDA-approval ready by late H2'23, which is why we estimate the North American expansion to begin in 2024, where we also forecast a hike in OPEX.

Sales & OPEX as % of Sales



EBITDA & EBITDA %



Source: Emergers

### Target multiples support target Market Cap of SEK 80m

We have a favourable view on the outlook for PolarCool as it offers an efficient solution, with strong clinical evidence, addressing a growing problem in a market with strong incentives to do something about it. However it is a

somewhat capital intense business model, renting out the systems in a subscription-based model, rather than selling them upfront. The upcoming rights issue of SEK 7.4m will be used to cover the European operating expenses, while we expect an additional capital requirement of SEK 25m for the company to reach its targets in 2025. By 2026, the installed base will be big enough for PolarCool to really enjoy the benefits of the business model, with large recurring revenues at high margins.

Forecasting an installed base of 738 in 2025E and 1538 in 2026E would indicate recurring sales of 35.8 MSEK and 77.5 MSEK respectively, while reaching positive EBITDA in 2025. Applying a combined target multiple of 2x Sales'25 and 15x EBIT'26 then provides support for a target Market Cap fair value of SEK 80m in 12-24 months. Adjusted for the upcoming rights issue of SEK 7.4m as well as additional capital requirements, this supports a share price of SEK 2.3

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