

I-Tech

Sector: Cleantech

Ingredients for high return

Redeye initiates coverage of I-Tech, a provider of a unique antifouling ingredient, used in marine paint. We see an attractive envirotech case with rapid growth and operational leverage, derived from a strong value proposition and key market drivers. Our valuation offers upside potential, supported by several catalysts which may improve the investor sentiment.

Set to capture market share

Investors in I-Tech gain exposure to a cleantech solution that effectively targets the toughest fouling challenge for shipowners. Ultimately, the company's ingredient in marine paint is reducing fuel costs in the financially distressed shipping industry. With two large customers on board, and three of the other six major market players evaluating I-Tech's solution, the company is establishing a solid position in a market estimated at USD 500m.

High operating leverage

I-Tech's solution is validated by i) 3+ years of ship tests, with a payback time for end-customers down to 0.5 years, ii) EU BPR approval, the toughest regulatory barrier, and iii) sales to I-Tech's two customers are scaling up > SEK 60m. Strong institutional ownership of 47% also verifies the case. We view I-Tech as a highly scalable business, with outsourced production and fully owned IP-rights, generating gross margins > 50%. We forecast low CAPEX and OPEX needs, enabling operating margins of 35%+, protected by i) high regulatory barriers ii) switching costs, and iii) potential brand recognition.

Operational challenges

In our view, the case in I-Tech faces certain challenges increasing the risk; i) high customer dependency ii) possible threats from new solutions iii) risk of slow market adoption due to a conservative market and limited incentives among shipowners.

44% upside potential

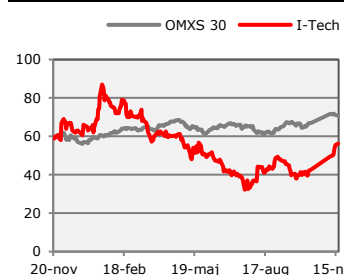
We expect I-Tech to deliver significant earnings momentum spurred by a 44% sales CAGR and avg. 18% EBIT margin until 2024E, followed by avg. 36% EBIT margin 2025-2028E. With, in our view, a solid management and a strong business case, we identify the right ingredients for high potential return in the I-Tech stock, valuing the opportunity to SEK 80 per share in our base case.

KEY FINANCIALS (SEKm)	2017	2018	2019E	2020E	2021E	2022E
Net sales	18	29	44	76	125	184
EBITDA	-6	-6	1	15	33	59
EBIT	-7	-14	-7	7	25	52
EPS (adj.)	-2.4	-1.4	-0.6	0.5	1.7	3.5
EV/Sales	0.1	22.1	14.2	8.1	4.7	3.0
EV/EBITDA	-0.4	-100.2	691.4	42.3	17.9	9.2
EV/EBIT	-0.3	-47.0	-85.0	85.5	23.4	10.5
P/E	0.0	-48.5	-91.7	106.1	33.4	16.0

FAIR VALUE RANGE

BEAR	BASE	BULL
40	80	140

ITECH.ST VERSUS OMXS30



REDEYE RATING



KEY STATS

Ticker	ITECH.ST
Market	First North
Share Price (SEK)	55.4
Market Cap (MSEK)	660
Net Debt 19E (MSEK)	-33
Free Float	53 %
Avg. daily volume ('000)	30

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Investment case

Commercially proven – set to capture market share

I-Tech has collaborated 10+ years with a leading company in the marine paint market. The relation has resulted in ever-larger orders, the latest in August 2019 of SEK 57m. Other top six market players are currently evaluating I-Tech's innovative antifouling solution. We believe the company's strong reference customers improve the odds of winning new major contracts.

Moats protecting the business

Selektope is approved in the EU and is used at hundreds of ships worldwide, while: i) The antifouling market is shielded by high regulatory barriers; to register a new biocidal active substance and reach market is costly and takes about ten years, ii) The shipping and marine paint industry is conservative; new coatings must be strictly tested, causing switching costs, iii) The company's key customer is promoting I-Tech's solution as "Powered by Selektope", potentially creating brand recognition.

High earnings growth potential

With i) attractive sales growth opportunities, ii) a strong competitive offering, and iii) a scalable business model, we view I-Tech as well positioned for high profitability. The record gross margin of 48% in Q3'19 underlines the potential. We believe limited OPEX and CAPEX with a sales CAGR of 44% 2019-2024, enables 34% EBIT margin 2024, in our base case.

Strong owner base

I-Tech is at the inflection point of profitability but has already attracted well-renowned owners. Seven institutions represent 47% of the capital, visualizing the high interest in the company. Stock price appreciation is common as institutions enter a stock, but as there have also been large sellers (ALMI, Cambrex), we do not view the stock as over-crowded.

Key Catalysts

New customer agreement

CMP is currently I-Tech's main customer, accounting for about 80% of sales in Q3'19. The partnership has proved symbiotic and successful. I-Tech now is in the evaluation phase with several of the other top six players in the marine paint market. In our base case, we estimate it to win one large customer in 2019 and another one in 2020. We believe significant sales growth and improved customer diversification would close the existing valuation gap.

Bottom line profitability

I-Tech is on the brink of sustained profitability, a vital inflection point that we believe will boost the investor sentiment. Scalability is the key to this catalyst; I-Tech only needs to service a handful of customers and has passed the key R&D and regulatory barriers.

The pace of CMP scale-up

CMP's first major commitment of SEK 50m was fulfilled one quarter earlier, with a follow-up order of SEK 57m for 2020 – around 60 % higher than for 2019. We view the pace of CMP's scale-up as a key driver for I-Tech's stock price in the near term. For 2020, we conservatively have not modeled with sales to CMP of more than SEK 57m in our base case.

Counter thesis

Customer dependency

I-Tech faces significant customer concentration risk; six major manufacturers dominate the marine paint market. Historically, CMP has represented > 80% of sales. Losing CMP would be devastating, but we have not identified any such signs; CMP is widely promoting Selektope and increasing its order values. I-Tech also has an exciting sales pipeline with at least three major prospects that, over time, could diversify the customer base.

Conservative market causing delays

The marine vessel industry is a highly conservative business. In the absence of a major game changer in the business, like regulation against cuprous oxide, the shift is likely to happen slowly. Industry inertia could delay the time for I-Tech to gain market share, although we argue that Selektope shows significant promise and there is a need for improved antifouling.

Lack of incentives among certain ship owners

Despite a strong value proposition with lower total costs, many shipowners are reluctant to invest in premium antifouling coatings like Selektope. Leasing of ships is the key problem. Most lease contracts in the business state that the owner pays for the coating, and the lease taker pays the fuel bill. The leasing model could reduce the overall demand for Selektope in the near term, although we believe end customers will push for more fuel-efficient antifouling.

Price pressure from new solutions

I-Tech has a good offering and a promising outlook within the antifouling market. For now, new competitors are limited by high regulatory and industry barriers. I-Tech's high profitability potential is, however, likely to attract competition. Eventually, we view it probable that other innovative solutions will enter the market, which could put pressure on the profit margins.

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Company profile

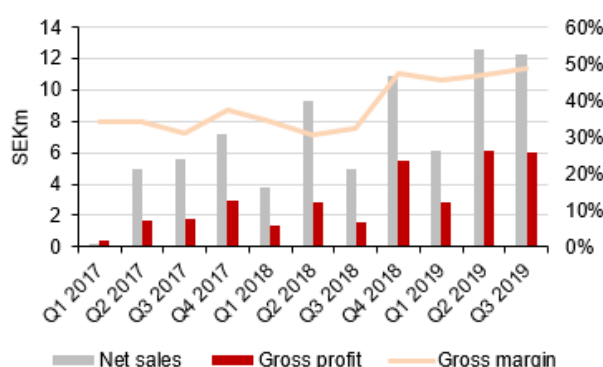
I-Tech is a biotechnology company founded in the year 2000, as a result of research at the University of Gothenburg. It offers an active antifouling ingredient, Selektope®, used in coating for large commercial ships. I-Tech's direct customers are the large, international paint manufacturers that incorporate the molecule in their coatings that are then sold to ship owners and boat makers, the end customers. The company has currently signed two customers among the 6 largest; Chugoku Marine Paints (CMP) and Hempel. I-Tech entered Nasdaq First North in May 2018, has net sales of SEK 42m LTM and today employs 9 people.

Selektope is spun from medetomidine, also used as a sedative drug for animals. An important part of I-Tech besides the full IP and regulatory rights to Selektope is the production process, where the company controls the largest and most efficient source of medetomidine production.

Ships coated with the Selektope-substance do not experience fouling from barnacles, effectively reducing drag, which, in turn, reduces fuel use and overall environmental impact. Ultimately, I-Tech's vision is to establish Selektope as the leading alternative biocide to prohibit marine growth effectively and sustainably.

In terms of financials, I-Tech has since start set out ambitious targets which it so far has delivered upon. As visualized in the graph below, sales have grown rapidly in recent years with improved gross margin, resulting in a positive EBITDA in the two latest quarters.

Net sales, Gross profit and Gross margin



Source: Redeye Research

Q3'19 – Solid improvement

The third quarter presented a solid increase in several important aspects, most notably the sales to customer three amounting to SEK 2.5m. An undisclosed top-6 market player is currently undergoing a large-scale verification process, before market launch. We interpret the high activity as I-Tech is about to launch one or several Selektope based products in Q4 with a new customer, in line with I-Tech's previous guidance.

The sales came in strong at SEK 12.2m (5.0m), performing a 145% growth y/y. In the last four quarters, the company has proved the scalability in the case further, establishing a gross margin above 45%, with 48% in Q3'19. A level we believe will be increasing in the coming years. The increased sales and improved gross margin in Q3'19 resulted in a positive EBITDA of SEK 1.3m (-2.8m Q3'18).

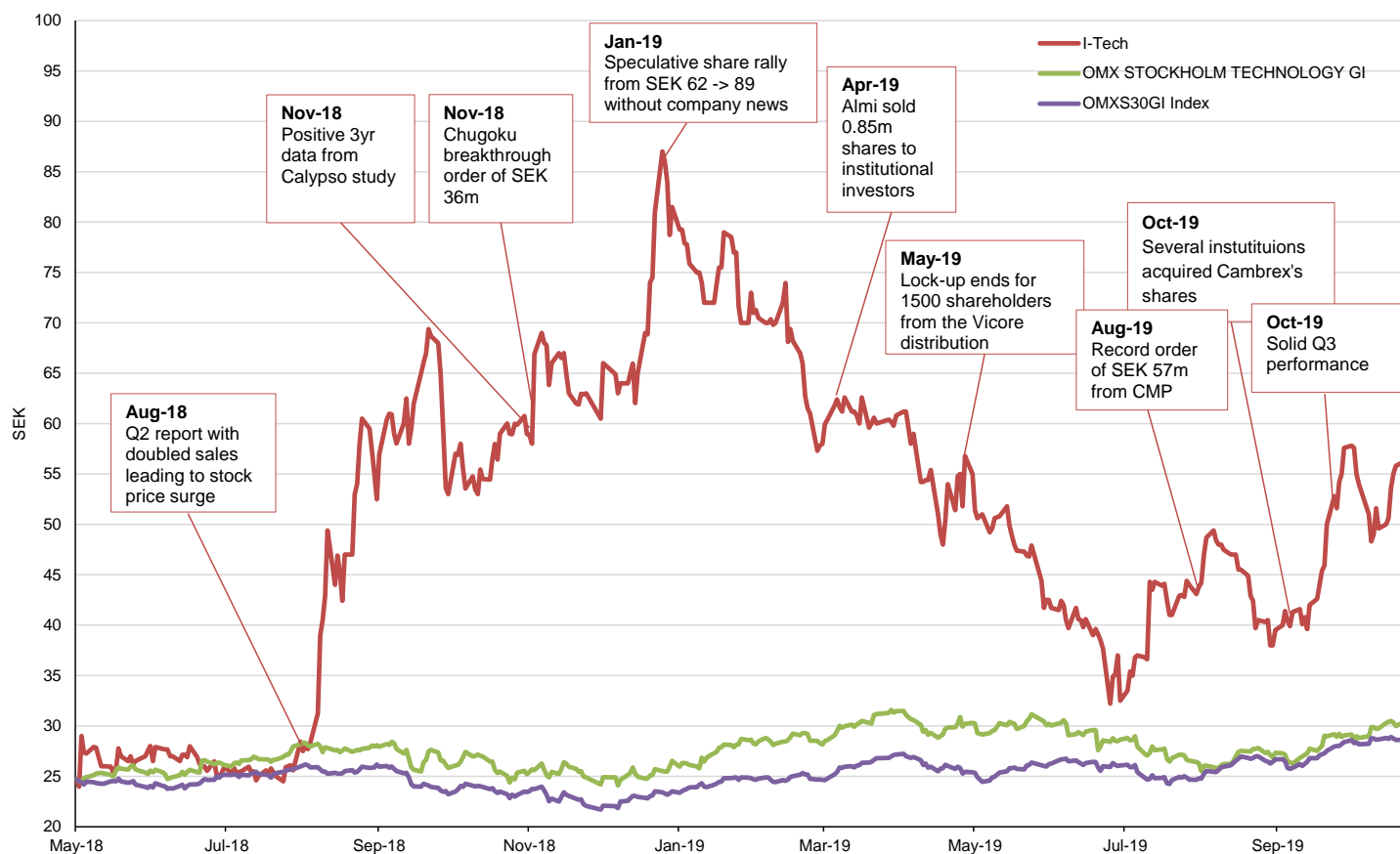
The relation with I-Tech's largest customer, Chugoku Marine Paints (CMP), has started to yield significant sales. In August 2019, CMP placed an order of SEK 57m, initially covering its need for Selektope for 2020. Besides the large order, CMP launched an additional product and its offering now consists of 8 Selektope-based products. With a large contribution from CMP, we believe I-Tech will continue to grow, surpassing net sales of SEK 120m in 2021.

During the third quarter 2019, the major shareholder Cambrex (owning 16% of the company) sold its shares to several institutions (Länsförsäkringar, Handelsbanken and Fjärde AP-fonden), fortifying the institutions' belief in the case. Cambrex sold its shares due to a buyout of the company, and we have a positive view of the efficient placing.

Share price development

Listed at the end of May 2018, the share price peaked in January 2019, around SEK 90 per share. Since the all-time high, the I-Tech share has seen a downturn of almost 35%. Still, the stock is up 100%+ since the IPO. We depict the key events below.

I-Tech - Stock Market History



Source: Redeye Research, Nasdaq Stockholm | Data as of Nov 19, 2019.

Introduction to Marine Antifouling

The basics of fouling

Any ship or vessel that operates in water is subject to multiple types of fouling, meaning organisms that attach themselves to the ship's hull. This is a natural phenomenon and happens to any solid surface submerged in water. There is hard fouling, which encompasses larger, often shell-building organisms like barnacles in seawater, and soft fouling, which refers to bacterial slime, seaweed, and the like.

Ships that experience this type of growth suffer from increased friction to the water, leading to higher fuel consumption and, in turn, increased costs and emissions. In addition, ships that experience high levels of fouling will need maintenance and repair more often, also inducing further costs for shipowners. Furthermore, growth on ships can cause aquatic species to spread from their natural habitat, which can cause disturbances when they reach new biospheres. It has thus become the industry standard to use some antifouling agent when coating a ship's hull. There are, however, several approaches to this problem that achieve similar effects.



Many traditional antifouling coatings make the surface of the hull smooth enough to prevent sufficiently strong adhesion as the ship moves through the water. Some antifouling ingredients are biocides, chemical substances that are released from the coating and actively harm or deter living organisms like barnacles. There are instances of such ingredients being banned from use due to their severe harm against marine life. The best example of that is the previously most commonly used tri-butyl-tin (TBT) that now is banned worldwide since 2003.

The most commonly used ingredient on the market today is cuprous oxide, which kills the organisms at the ship's hull. The effect on the hull from the cuprous oxide powder reduces with time, thereby requiring the ship to move, polishing its surface and bringing fresh cuprous oxide to the hull's surface. This can be troublesome if the ship is idle for long periods.

Some studies have found cuprous oxide (in large quantities) used in antifouling to be harmful towards marine life, interfering with sense organs in crustaceans and fish. The report also discusses that the same antifouling efficacy can be obtained with a lower concentration of cuprous oxide than is currently being used. Additionally, it points out that the amount of

cuprous oxide released from the hull is affected by which other substances are used in the paint as well as the salt levels in the water.¹



Figure 1: Barnacles

Desirable properties of an antifouling agent

A viable antifouling ingredient should hold several desirable properties. It should prevent hard or soft fouling, preferably both. Seeing as the industry adapts to change very slowly, integrability with other antifouling agents is a way to sell the product even when companies still want to hold on to their traditional antifouling solutions. To be economically sustainable, the release into the water should be kept to a minimum to ensure a less frequent need for docking or reapplication. Additionally, and increasingly, there is a need for antifouling agents to be environmentally friendly. This means it should be effective, an acceptable toxic level (low-environmental impact) and approved by the Biocidal Products Regulations (BPR).

How fast marine fouling organisms colonize a surface depends on the temperature of the water and the availability of light and nutrition. Growth takes place significantly faster in warm, tropical waters. Ships exposed to longer periods at anchor while waiting for cargo or access to port face a larger risk of growth. It is an age-old problem where the number of prevention methods has become reduced due to tougher legislation.

Among the biofouling organisms, the barnacle is considered to be the most serious fouler as it is persistent, sturdy, and difficult to remove from boat hulls. The individual strengths and weaknesses of different antifouling agents are discussed more extensively in the Competition section.

¹ https://havochsamhalle.gu.se/digitalAssets/1703/1703741_rise_bonus-change_book-final_180307.pdf

Selektope

Medetomidine, as the substance is known in general, was first developed by Orion Pharma, a Finnish pharmaceutical company. The substance is commonly used as a sedative premedication for anesthesia in cats and dogs. Research conducted by Gothenburg University in the 1990s found that the same compound could help prevent marine fouling, as it deters barnacles from attaching to ship hulls.

Barnacles are marine crustaceans commonly found on rocky underwater surfaces. Starting as a larva, the animal searches for potential surfaces where it can attach itself using a glue-like secrete. Once attached, the barnacle stays fixed on the same surface for the rest of its life. There, it develops into its adult state. Adult barnacles are surrounded by calcium carbonate plates and use their legs to capture plankton for food. It is the adult barnacle we typically think of and try to avoid stepping on when enjoying a swim.

It's time to let go

Selektope biocidal mode of action stimulates the octopamine receptor of the barnacle larvae, activating swimming behavior. This causes temporary hyperactivity in the larvae, effectively meaning they cannot settle on the ship's hull. After a short while, the effect wears off and the larvae return to their normal behavior. Some researchers have likened the effect to that of adrenaline on humans.

Since Selektope works in this way, actively causing barnacles to swim away, it has one desirable property that many other antifouling agents lack: it performs very well when the ship is idle. While many other substances, such as cuprous oxide, rely on the ship's movement to work (explained more in depth in the section above), this is not the case for Selektope. This is especially helpful in areas such as South America, Southeast Asia, and Africa. There, the ships often remain idle in very warm waters where barnacles thrive.

Very small concentrations of Selektope in the coating is needed for it to be effective. Only 2g/Liter paint is required, compared to 500-700g/L of cuprous oxide when used for barnacle prevention (I-Tech, AR 2018). Selektope comes in a soluble tube that dissolves upon contact with the paint. In the paint, it binds to pigments and other particles in a way that causes it to be continuously released during the lifespan of the coating. It then degrades into carbon dioxide or becomes non bio-accessible. Also, it should be noted that Selektope can be combined with other agents to obtain additional properties, such as improved surface-finish and increased resistance to slime which e.g. is the case with Chugoku's Neo CF Premium.

Following the discovery of its antifouling properties, Selektope is since 2016 approved for use in the EU through the EU Biocidal Products Regulation. Regulatory approval is also held in Japan, South Korea, and China.

Value proposition

In general, an investment in antifouling paint is given for ship users. Below we list a few statements:

- If 10% of the hull is covered by barnacles, 36% more power is needed from the engine for a ship to maintain the same speed
- For an ocean-going ship, hard marine fouling can result in an increase in fuel consumption and emissions by up to 40%
- If all ships had optimal hull performance, the fuel-saving potential would amount to approximately 20 billion dollars per year
- The fuel cost can be as high as 50% of the total cost for shipowners
- By limiting the adhesion of marine organisms, it is estimated that marine antifouling (AF) coatings provide the shipping industry with annual fuel savings of \$60 billion and reduced emissions of 384 million and 3.6 million tons, respectively, for carbon dioxide and sulfur dioxide per annum²

Selektope comes with several pros both for paint makers and ship operators. On the downside for Selektope there are no obvious disadvantages; the price for the end-customer gets higher but is mitigated by increased performance. Further, its specific effects limit mainly hard fouling, not soft fouling, but could be threatened by new entrants or concepts outside biocides.

Key pro's with Selektope	
For ship operators	For paint makers
Superior static performance	Efficacy delivered at 0.1% w/w
Unique, bio-repellent mode of action with non-fatal effect	Compatible with existing formulations and active agents
Cleaner hulls, reduced need for hard scrubbing	Flexible enough to boost copper-based formulations, powerful enough to replace copper
Low environmental loading	Offers ultimate freedom to formulate
Ultra-low leaching	
Improved fuel saving	

Source: I-Tech

When it comes to using premium coating based on Selektope, there have been several studies confirming the use of Selektope (premium antifouling) as a rational investment.

The main case study profiled by I-Tech, as well as CMP is one with Team Tankers on the ship Calypso. The study started in 2015 with drydocking and painting in Singapore, together with using [SEAFLO NEO CF PREMIUM](#), a cuprous oxide -free paint from CMP.

Key results:

- The yearly cost savings are indicating a payback time of around 0.5 years with yearly savings of USD 171,000 -212,000, compared to reference ships painted with: a foul release coating type and ship B coated with an SPC type.
- Seaflo Neo CF Premium is marketed to give fuel savings of 5-8% compared to conventional antifouling.³
- At month 40, only 16% added resistance on hull and propeller compared to 30% from reference ships. (Resistance is reduced by half)⁴

In appendix 2, you will find the study data in detail.

² https://www.researchgate.net/publication/271179593_Marine_Fouling_An_Overview

³ http://www.cmp.co.jp/library/global/pdf/brochure/SEAFLO_NEO_CF_PREMIUM.pdf#zoom=70

⁴ <https://news.cision.com/i-tech/r/team-tankers-international-signs-up-more-ships-to-using-selektope-powered-hull-coatings.c2805286>

Business Strategy

I-Tech's purpose is to market and sell Selektope. Creating demand for the product is done in two steps. Firstly, I-Tech faces the challenge of gaining trust and legitimacy among the world's largest paint manufacturers, i.e., its direct customers. In practice, this concerns approximately six major companies that together reach more than 80% of the commercial fleet. Secondly, to succeed, marketing and relationship building has to be done with the end customers (fleet owners, shipbuilders, and the like to create a demand-pull situation to speed up the shift).

Strengthening the Selektope brand among end customers will put pressure from both ends on paint manufacturers. Not least from shipyards, who have a lot to say in this matter.

The competitive strategy employed by the company is one of differentiation. Selektope holds some properties that are unique to it as an antifouling agent, enabling a premium price. However, it is worth to mention that several other actors are trying to justify a similar premium through differentiation.

I-Tech makes use of three main fixed assets in its competitive strategy:

- Stable supply chain - increasing gross margin through efficient production, as well as laying a foundation for handling increased sales volumes.
- Regulatory approval - gaining regulatory approval is very important to exist on the relevant markets, as well as standing on equal footing with other substances.
- Patents - a classic example of competitive advantage; if Selektope becomes a popular antifouling agent, it is extremely advantageous to have exclusive rights to manufacture and sell it.

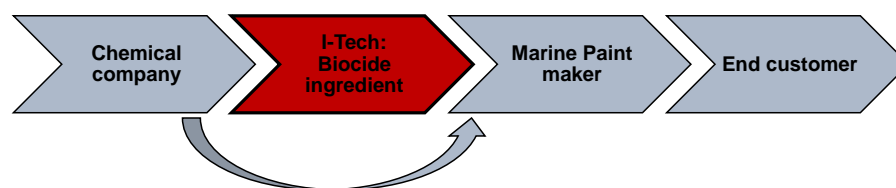
Using this as a foundation, I-Tech's daily itinerary consists of traveling around the world trying to establish relationships with direct and end customers. We believe that increasing trust from the industry is likely to send ripple effects that will grow the use of Selektope.

Shipping costs

One obstacle in the way of success is a principal-agent problem that can arise in the case of leased vessels. Leasing is a common ownership structure of large carrier ships, and often the owner is not the one footing the fuel bill, but the operator leasing the ship. I-Tech thus faces the challenge of shipowners not wanting to invest in premium coatings when they do not experience the reduced fuel costs.

Going forward, the company strives to break Selektope into a handful of new markets. That includes the offshore industry, as well as the market for private boats and yachts. Selling to leisure boats is primarily attractive in the United States, due to the large market size. I-Tech is currently collaborating with two large fishnet companies to enter the market for fish farming. Norway has recently called for the need to replace cuprous oxide in fish-farming nets. Companies selling similar substances to Selektope, such as Econeal, have seen some success in breaking into these markets.

Production of Selektope is currently done in India by a single manufacturer. However, a second manufacturer is setting up and will assume part of the supply. The acquisition of assets from Cambrex Karlskoga was not part of the production per se, but rather the crucial IP rights to manufacture the substance. The company has slimmed its production process, integrating the two supply steps into one single supplier. As a result, we argue that I-Tech has improved the outlook to reach high profitability in the coming years.



Patents and IP-protection

I-Tech currently has 58 user patents in key areas such as Asia and Europe. The main patent for the use of medetomidine expires in 2020, while the formulation and production patents are covering the company to 2026 and 2030, respectively. As such, I-Tech has taken several measures to protect its business, which is key for the long-term potential in the company.

To our understanding, a competitor trying to use medetomidine will have to register a proprietary product. As a result, it is not possible to create a generic version of Selektope. The regulatory path is time-consuming, and the process does not seem to become less complex. Even for I-Tech, the regulatory requirements continue. By 2022/23, the initial EU approval expires, which means that I-Tech has to provide updated material to sustain its position. I-Tech has many years of regulatory experience, and we believe that it will complete the process in time.

Additional use cases for Selektope

Recreational vessels

Just as large, commercial boats need to avoid barnacles on the hull, recreational boats, and yachts have this need as well. Selektope is approved for use on recreational vessels in the EU but is not incorporated in any registered product on the European market. The explanation, according to I-Tech, is the high entry barriers (coming with regulatory uncertainties), meaning no business case for the paint manufacturers to register a product. The regulatory uncertainties are derived from additional regulative restrictions in different EU countries on top of the BPR-regulation. Due to that, the paint makers must register a product in each country, leading to large costs versus potential income.

However, Selektope is approved for both commercial and private use in the EU. That said, the company has stated that during 2019, it will evaluate entry into the US market, where we believe there is potential for long-term profitability. We assess this business area to be the most logical expansion step in the next years. As the company has stated that the EU market is complicated and unclear regulation-wise, the US market seems more rational to approach. We expect I-Tech to commence with an EPA application in 2020, which we expect to take about four years to complete and get approved.

Fish-farming

Biofouling is a frequent problem in other areas than large ships and vessels. In fish farming, both the surface of the pen and the netting are subject to fouling. When this happens, organic material such as algae spores and bacteria stick to the surfaces, further bringing on larger organisms such as barnacles. Subsequently, the flow of water and oxygen in the pen is greatly hindered. Finally, this leads to infections in the fish which can cause slower growth or even death.

Additionally, there are practical issues, such as the nets being weighed down by heavy fouling. In fish farms, the most common antifouling agent is cuprous oxide, in different alloys. The antimicrobial properties of these alloys prevent fouling, which reduces the need for

cleaning, antibiotics, etc. I-Tech has carried out some initial testing as well as started discussions with different parties related to fish farming. As of now, we do not see an entrance in this segment as a priority for I-Tech but rather view it as an option for potential future revenues. Anyhow, we do not see as large potential as in shipping, as the required amount of Selektope substance likely is lower as the surfaces are smaller.

Offshore

Biofouling creates increased weight on rig structures in the offshore industry. Cracks, corrosion, and other types of damage can be hidden from sight when there is severe fouling. Effects of offshore fouling do not appear to be very palpable, although in a worst-case scenario, it could have devastating consequences. It seems to be a largely overlooked problem, especially when compared to boats. This does, however, mean that the market, as of yet, is not very significant in size or profitability.

There is also the issue of fouling on pipelines and cables. Strakes that are used to protect the pipes from currents are made ineffective by fouling, as they need to be strong, yet remain light and flexible. I-Tech has initiated research, together with several other parties on functional materials containing Selektope, which can potentially be used in the offshore sector. We mostly see this as an option on future revenues, since the company does not put any larger focus on the area at this point. Considering the opportunities within the shipping industry, we believe it is strategically correct to focus on this segment primarily.

People

Philip Chaabane entered as CEO in I-Tech in 2014 and was prior employed at PowerCell Sweden as director of Engineering & Business development. Magnus Henell entered as CFO in 2017 and was previously CEO at PowerCell Sweden. Together, we see that they apply a business-oriented mindset, with a clear focus on creating long term shareholder value. We see a solid management team with a combination of broad experience and deep sector knowledge.

Management					
Name	Position	Since	Holdings (t) shares	% of equity	Experience
Philip Chaabane	CEO	2014	154	1.29%	Management positions at various tech companies, most recently as a business developer at PowerCell. Educated engineer, has worked at Volvo Aero Corp. (now GKN Aerospace).
Magnus Henell	CFO	2017	30	0.25%	Former CEO of PowerCell. Holds M&A experience from Volvo.
Oliver Weigenand	COO	2015	0	0.00%	Has held management positions for chemical companies in the US. As the former global product manager at Verichem, he has worked previously with marine biocides. Holds a PhD.
Cecilia Ohlauson	Head of Regulatory Affairs	2013	22	0.18%	Has worked with regulations at I-Tech since 2008, and previously in the pharma industry. PhD in environmental science.
Dan Isaksson	Research and Application Development Manager	2017	10	0.09%	PhD in organic chemistry. Employed after a Marine Paint reserach project at Chalmers/Gothenburg university
Catherine Austin	Director Marketing and Communications	2017	2	0.01%	Has for many years worked with writing about clean technology in the marine industry.
Ba-Vu Nguyen	Supply Chain and Logistics Manager	2018	1	0.01%	16 years as lead chemist and project leader at Cambrex. Was part of the process of developing the Selektope substance. Holds a PhD in organic chemistry.
Markus Hoffmann	Technical Director	2019	0	0.00%	Previously Subject Matter Expert Antifouling Coatings R&D at Hempel. Has been Team Manager Central R&D at BASF. Holds a PhD in organic chemistry and has had a postdoc position at Kyoto University.
Total			219	2%	

Source: I-Tech, Holdings as of 2019-11-19

I-Tech currently employs 9 persons covering all essential functions, indicating high scalability in OPEX. Recently the company made a strategic recruitment of Markus Hoffman from Hempel's R&D, who previously was Hempel's expert within Antifouling Coatings. The recruitment increases the legitimacy of Selektape and fortifies the company's expertise within antifouling.

We interpret the management's communication as constructive and honest. I-Tech was founded in year 2000 but went public in 2018. As a result, there is not a whole lot of public communication to assess. But up until this point, we recognize that the company has delivered on its ambitious targets.

Overall, the people score high in our rating (4 out of 5). The CEO and CFO represent around 1.5% of the total company (SEK 10m), while we would prefer that the rest of the management would get more skin in the game. CFO Magnus Henell increased his position in May and August 2019, buying shares for approximately SEK 300,000. To summarize, we see a solid, business-oriented management team with a strong focus on long-term value creation for its shareholders.

Board of Directors

Name	Position	Since	Holdings (t) shares	% of equity	Experience
Stefan Sedersten	Chairman	2014	451	3.79%	Engineer with a background in marine propulsion at Berg Propulsion, which in 2013 was sold to American conglomerate Caterpillar for an undisclosed amount. Also holds the position of chairman in Lean Marine, a hardware and software provider for marine fleets with a focus on fuel and cost-saving.
Tomas Tedgren	Board member	2017	1358	11.40%	Long-time CEO of Pomona Group, a family business-focused investment company and a major shareholder of I-Tech.
Leif Darner	Board member	2014	135	1.13%	Businessman from the paint and chemistry industry, e.g. being a former board member of AkzoNobel. Sits on the board of LKAB. Chairman of Vicore Pharma, which used to be one of the largest shareholders in I-Tech.
Mats Enegren	Board member	2014	1050	8.82%	Represents large shareholder ALMI Invest, where he is a fund manager, on the board.
Mikael Laurin	Board member	2011	0	0.00%	Background as both a consultant and an entrepreneur in different parts of marine operations. Seems to have a good understanding of the supply chains and dynamics involved in the maritime vessel and shipping industry. Last year he sold his family's business Laurin Shipping AB to Bermuda-based Team Tankers Inc. (listed in Oslo), where he now sits on the board.
Bjarne Sandberg	Board member	2018	10	0.08%	Came to the company through Cambrex, where he is CEO of its Swedish arm.
Total			3004	25%	

Source: I-Tech, Holdings as of 2019-11-19

Owners

Five of the top ten owners are represented on the board. Pomona through former CEO Tomas Tedgren, ALMI Invest through Mats Enegren, and Cambrex through Bjarne Sandberg; alongside Göran Wessman and Stefan Sedersten, the current and former chairmen.

For a growth company on the brink of profitability, there is an encouraging amount of institutional ownership. There are currently eight institutions representing 47% of the company, highlighting the potential and qualities of the company.

ALMI Invest, the second-largest shareholder by March 31, 2019, sold 850,000 shares (7% of the company) to a Swedish institution in April 2019. The trade was conducted at a minor discount and had a limited share price effect. We view the transaction as a logical step in line with ALMI's strategy to provide funds for innovative growth companies and then exit. I-Tech has reached a more mature state by going public, raising capital, and close to profitability. ALMI Invest currently is the third-largest shareholder with 9% of the capital and votes of I-Tech, and we expect them, in line with their strategy, to seek exit opportunities in a structured manner. We notice that I-Tech is currently ALMI Invest's largest public position in Holdings.se, indicating a successful investment.

Cambrex became the largest shareholder in the company following I-Tech's acquisition of the intellectual property and manufacturing rights to the medetomidine substance. Subsequently, it has gained a presence on the board through Bjarne Sandberg. In September 2019, Cambrex' shares were sold off-market to Länsförsäkringar Fonder, Handelsbanken Fonder, Fjärde AP-Fonden and Swedbank Robur.

Top 10 owners		
Name	Holdings shares (m)	Capital/votes
Pomona-gruppen AB	1.36	11.4%
Swedbank Robur Fonder	1.13	9.5%
ALMI Invest	1.05	8.8%
Länsförsäkringar Fonder	0.75	6.3%
Handelsbanken Fonder	0.55	4.6%
Göran Wessman	0.45	3.8%
Stefan Sedersten	0.45	3.8%
Unionen	0.45	3.8%
Avanza Pension	0.37	3.1%
Fontenelles Hold. (Aquamarine Ltd)	0.37	3.1%
Total	6.94	58%

Source: Holdings as per 2019-11-19

Market

Shipping is the foundation of global trade and accounts for more than 80% of the transport of world trade by volume. The industry, supported by approximately 50,000 merchants (100,000 including all International Maritime Organization (IMO) registered ships), ships over 1.000 gross tonnage⁵ (GT) that uses more than 350 million tons of bunker fuel oil annually. Also, the industry is responsible for 2.6% of the world's total carbon dioxide emissions.

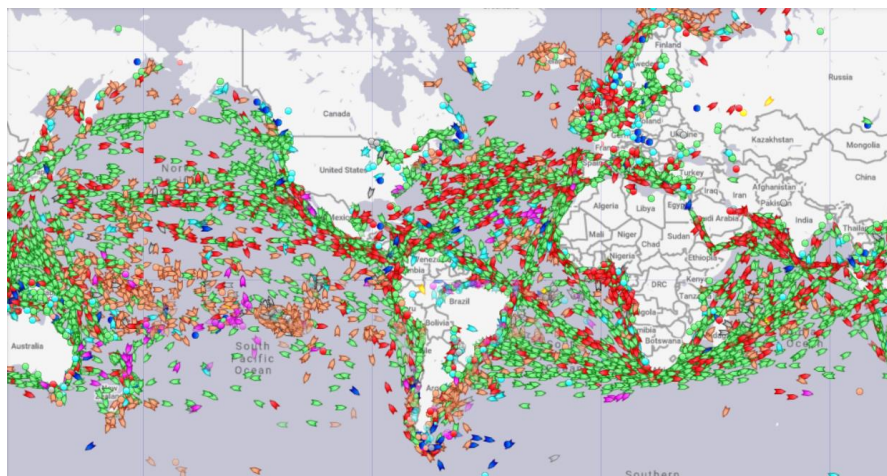


Figure 2: Marine traffic

More applicable, the total revenues in the antifouling paint industry are estimated to around USD 3bn per year.⁶ This number is the total value for marine paints where Selektopex is one ingredient. In the 2018 annual report, I-Tech estimates the value of the global antifouling paint industry at USD 3bn, which we find to be in line with market researchers. Based on that size, the market for Selektopex is valued at USD 500m.

70% of the world's antifouling volume goes towards the 50,000 ocean-traveling ships, which are I-Tech's main potential end customers, benefiting the most from increased hull performance (reduced drag). However, the additional 50,000 coastal-traveling ships are not either to be excluded. External industry sources are in line with the company's expectations that sales from the global antifouling paint market will increase by 6% yearly in the coming years. We view this number reasonable and based mainly on cost-savings potential and several regulatory initiatives by IMO (discussed below in the market drivers section).

Key market figures:

- The total addressable market for Selektopex USD 500m
- The global sales of antifouling paint are expected to grow yearly by 6%.⁷

The application of new paint is done on two occasions; at the building of the ship and when it's docking for maintenance. During the newbuild, the dock itself is the bottleneck, which leads to ships ending up somewhere in the harbor (in the water) while being completed. This is a tough period in terms of fouling as the ship lays still, which requires antifouling. A clear majority of new ships are built in Asia, meaning a large portion of the growing demand will be found there. That said, most shipowners reside in Europe and will hold the key to selling towards re-coating.

⁵ UNCTAD 2018 e-handbook of statistics / merchant fleet

⁶ I-Tech, AR 2018

⁷ Markets and Markets report: Marine Coatings Market – Global forecast to 2022 (published in the beginning of 2018)

Ocean-going cargo ships normally dock for maintenance and repairs every three to five years. In many cases, an early docking is needed due to high growth of biofouling. If this can be avoided through adequate antifouling protection, significant saving potential can be realized.

Cargo ships account for 56% of the market and represent the largest field of application. Corresponding market share for passenger ships and recreational vessels amounts to 18% and 17%, respectively. So far, I-Tech's customers have chosen to focus on the cargo ships, given the significance of fuel consumption and cost. Passenger ships have been addressed to a certain degree, as well as coastal vessels, including service vessels and tugboats.

Entry barriers

Latching onto the market, and staying in place

Entering the market is difficult, both because of regulation and advantages for existing market players. Regulation makes up a substantial barrier in several ways. For example, there are obvious regulations that directly hinder companies from introducing dangerous chemicals into the water. However, the most notable piece of legislation is the EU's Biocidal Products Regulation (BRP). When introduced, it lowered the number of permitted biocides on the market to only 12 substances. Any substance that fits their definition of a biocide must go through a long and tedious process to get approved on the European market. To quote Cecilia Ohlausson, Head of Regulatory Affairs at I-Tech, she "would not recommend an SME to try to register a new biocidal active substance, unless they are prepared for the substantial cost and approximately ten years to reach the market."

Given that the end customer industry is not very adaptable to change, this has made it easy for cuprous oxide manufacturers to keep a steady flow of revenue. Cuprous oxide outlived both the rise and the fall of TBT antifouling. Its position has also been retained as the cost-conscious alternative, and as long as shipowners hold that to be true, they are not likely to switch coatings.

Market drivers

International Maritime Organization (IMO)

The IMO has several regulatory initiatives working towards a reduction of the environmental load from the shipping industry. The main target is to reduce the sector's CO₂ output. The IMO Marine Environment Protection Committee (MEPC) member state delegates have agreed on a target to cut the shipping sector's overall CO₂ output by 50 percent by 2050 compared to 2008, while, at the same time, pursuing efforts towards phasing them out entirely.⁸ The initiative will push the sector to reduce its emissions, leading to an increased demand for many products and services working in that favor.

IMO - 2020 global Sulphur limit

A new IMO regulation effective in January 2020 will ban ships using fuels with a Sulphur content higher than 0.5% (currently accepted level 3.5%) unless equipped with Sulphur cleaner (Scrubber). Ultimately, the industry has aligned expectations on its effect, leading to increased fuel costs for ships. Shippers are expected to face squeezed margins, but in the long run, the increased costs will be transferred to regular consumers, paying higher prices on imported goods. For I-Tech, we see an increased demand for fuel optimization products, such as antifouling and route optimization tools. In Appendix 1, we give a more extensive review of the IMO regulations.

⁸ https://unfccc.int/sites/default/files/resource/250_IMO%20submission_Talanoa%20Dialogue_April%202018.pdf

Invasive aquatic species

In the marine industry, the introduction of invasive aquatic species in new environments has become a growing issue as the world trade and traffic volume increases and has been identified as a major threat to the world's oceans and the conservation of biodiversity. The IMO has issued guidelines on how to work against the growing problem and displays antifouling of the hull and niche areas as the primary measures.^{9 10 11} In addition the GloFouling project initiated in December 2018 by the IMO and others, such as UNDP, will drive actions to implements the guidelines.¹²

New build activity

Another market driver is the new production of ships, which currently, not play in favor of any paint maker in the industry. The deliveries of new productions topped-out in 2007 slightly below 250m deadweight tonnage (DWT) and have until now not reached the same levels. Overall, the shipping industry has been under pressure by depressing freight rates as a function of overcapacity.^{13 14}

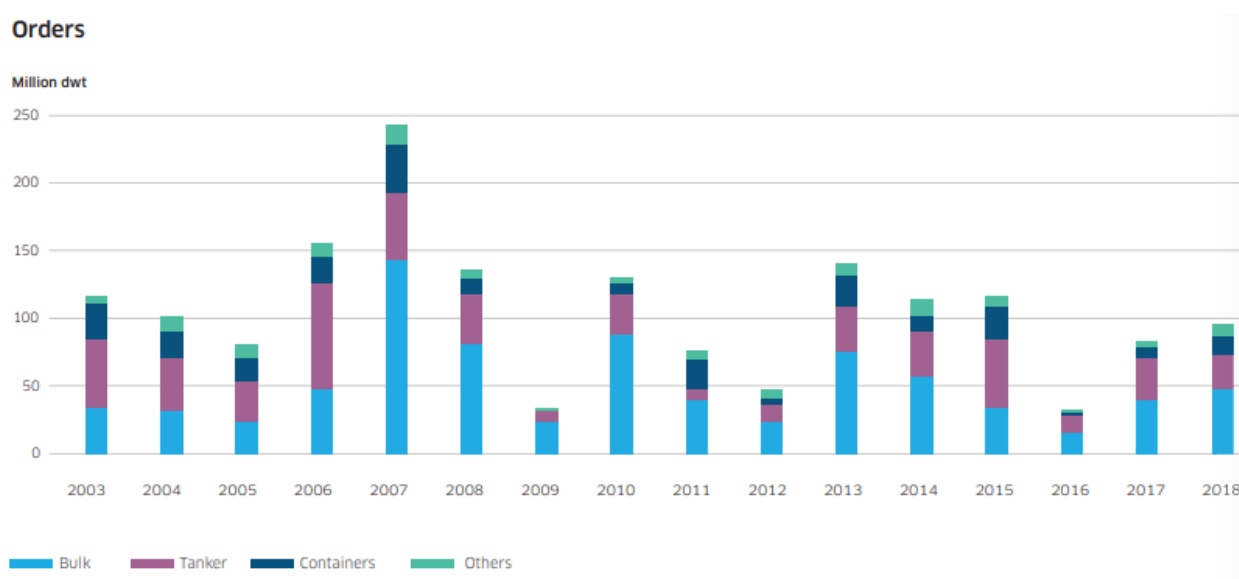


Figure 3: Orders in (m) dwt by BRS Group

In the 2018 year-end report, Akzo Nobel reported a continued slowdown in new build activity in the marine sector, despite a recovery in contracts for some vessel types. Akzo Nobel's revenue from the marine segment has decreased three years in a row, around 20% from 2015-2018 (EUR 1581m to 1291m).

To summarize the drivers, we see a market large enough where I-Tech can grow by acquiring market share. Even though the industry is financially under pressure, we view the market changes as positive for I-Tech and consider antifouling to reduce fuel costs as necessary.

⁹<http://www.imo.org/en/OurWork/Environment/Biofouling/Pages/default.aspx>

¹⁰<http://www.imo.org/en/OurWork/Environment/Biofouling/Documents/RESOLUTION%20MEPC.207%5b62%5d.pdf>

¹¹http://data.hullpic.info/HullPIC2019_gubbio.pdf

¹²<http://www.imo.org/en/OurWork/Environment/MajorProjects/Pages/GloFouling-Project.aspx>

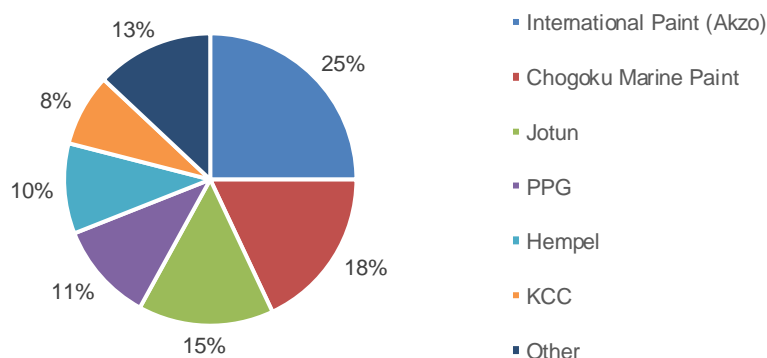
¹³https://www.brsbrokers.com/assets/review_splits/BRS-Review2019-01-Shipbuilding.pdf

¹⁴<http://www.oecd.org/sti/ind/shipbuilding-market-developments-Q2-2018.pdf>

Customers

All the relevant customers in the marine paint industry are giant paint conglomerates that operate within all types of paints and coatings, from house paint for homeowners to protective coatings in not just marine vessels but offshore rigs, production facilities, and the like. Therefore, the market shares within marine paint are hard to assess in relation to each other as only a few of them are listed companies and do not disclose detailed information for marine paints. I-Tech has previously presented a pie-chart from 2013, displayed below.

Marine paint - World market share per company



Source: Frost & Sullivan (2013)

We note that the market shares amongst the top 6 market players might have shifted, but we have not identified new data demonstrating their respectively current market share. Also, we have not found any evidence of new players capturing a large portion of the market and believe these top six players still dominate the market.

I-Tech's current customers

Japanese **Chugoku Marine Paints (CMP)** is one of the world's leading manufacturers of marine antifouling paint with a turnover of around SEK 6.9 billion and 2,300 employees in 2018. CMP is I-Tech's largest customer to date, currently selling 8 Selektape-based products. CMP is one of the world's three largest manufacturers of marine paint with about a 20% share of the global market, while around 60% in the Japanese market. The firms have collaborated since 2008, with the first global launched paint in 2016, and has since 2018, started bearing significant orders. To us, CMP seems deeply invested in its products containing Selektape. Its product Seaflo Neo CF Premium, for example, clearly positions Selektape as a marketing selling point.

Danish paint manufacturer **Hempel** was established over a hundred years ago. The company sells paint not only to the shipping industry but to infrastructure and residential property. London's Tower Bridge, for example. It also provides services in connection to their products, e.g., technical training. Globic 9500S contains Selektape, which is cited as being especially helpful when the ship is idle. Recently, the collaboration has progressed somewhat slower. However, I-Tech's recruitment of Markus Hoffman from Hempel's R&D department might provide a positive injection in the upcoming dialogue.

Potential customers

With roots in Sweden and the Netherlands, **AkzoNobel** is an Amsterdam-based manufacturer of paint, currently one of the largest in the world. It owns a vast amount of brands within the paint industry. It is the **International Marine** subsidiary that produces antifouling coatings. It sells a product with patented copper acrylate technology that, like Selektape products, is especially well suited for idle periods. Other notable paint manufacturers include Norwegian **Jotun**, US-based **PPG**, Korean **KCC**, and Japan's **Nippon Paint**.

End-customers

I-Tech has a set-out strategy to create a demand-pull situation from end-customers (shipping companies and fleet owners). There are several potential end-customers with very large fleets, which could put pressure on the paint makers to get Selektape based paint.

An ideal customer is **APM Maersk**, the world's largest container shipping company. Based in Denmark, the fleet consists of around 700 vessels. We know that Maersk chose a Selektape-based product in 2015 at a newbuild project in South Korea but have not been able gain detailed insight into its selection of marine paints today. Maersk has previously worked with both Jotun and Akzo, based on news releases from the two paint makers. Anyhow, due to the large fleet size of Maersk, we assume that it is more or less working with all top paint makers on the market.

There are several other fleet owners that could yield large sales if Selektape would be favored; Swiss **MSC**, around 500 ships, CMA CGM around 500 ships, COSCO around 350 ships, and others. I-Tech has mainly promoted two companies using Selektape, [Stena RoRo](#) and [Team Tankers](#)).¹⁵ For further reading, companies such as **Lauritzen**, **Carnival** and **Hellenic Seaways** have also used Selektape based paint.

¹⁵ <http://i-tech.se/wp-content/uploads/2018/04/i-tech-pres-website.pdf>

Competition

The most common alternative for antifouling is cuprous oxide -based solutions. Cuprous oxide alone is not as efficient as Selektople in the sense that there has to be a profoundly larger concentration; it is part of the rigid status quo in the shipping industry. It is recognized that many biocides work well, or better when paired with cuprous oxide. Which is the case for several current products containing Selektople. The case against cuprous oxide is the tightening of regulation, due to its negative environmental impact in large concentration. However, while regulation against cuprous oxide may be a logical step in the future, it should be noted that this is not set in motion by any major regulator as of yet.

As previously mentioned, the single most common biocide used in antifouling is cuprous oxide. Some of the largest suppliers in Europe include Norwegian Nordox, Germany's Spiess Urania and American Chemet are suppliers of (di) cuprous oxide. Besides them, there are several companies providing different co-biocides (CuPt, ZnPt och SeaNine) for marine paint as BASF, Swiss Lonza and Dow Chemical.

The effects achieved by antifouling (i.e., improved hull performance reducing fuel consumption) is the ultimate desire for end users, regardless of which type of ingredient is used. The real difference lays within their costs, and they will most likely, with time, use the antifouling with the greatest reward on the investment. In the meantime, regulators will work towards reducing the industry's environmental load.

Overall, the main competition today is different types of cuprous oxide-based solutions as they hold most of the market. However, we have below focused on the products we deem most relevant in terms of competition going forward for Selektople.

Foul release coatings

Besides coatings containing biocides, there are silicone-based coatings. The paint works from a non-stick principle to prevent biofouling by making the hull slippery. The silicone-based antifouling is rather new but has gained interest from Hempel and Akzo, yet it represents a very little part of their sales. Going forward, we see possibilities for silicone-based paints, with a combination of low friction and adding biocides, which can be compatible with Selektople. However, there are no such products today on the market.

On the market today, Hempel does provide silicone-based paints, as Hempasil X3, which comes with some limitations specified below:

- Vessel type limitations - not recommended for low activity level or slow steaming¹⁶
- More extensive/expensive process to apply - increased switching costs
- Low damage tolerance

¹⁶<https://www.hempel.com/~media/Sites/hempel/files/marine/brochures/FoulingControl-Brochure.pdf>

Econea

The producers behind Econea are Janssen PMP, a subsidiary of Janssen Pharmaceutica, a Belgian company in turn owned by Johnson & Johnson. In terms of properties, Econea seems to be the most relevant substitute to Selektope and as far as we know, the only other approved none-metal based substance against hard fouling. Econea was approved by the EU in 2014 and has shown good antifouling properties. There are large paint manufacturers supplying Econea products, for example, Akzo's Interlux brand targeting recreational vessels and yachts. However, we have not found any marine paint for commercial ships marketed to contain Econea.¹⁷ Besides paint for recreational vessels the company has already made the step into fish farming. In the future, Econea will provide competition if I-Tech decides to enter the recreational market in USA.

Key differences to Selektope:

- Required in larger volume, around 5%, compared to Selektope from 0.1% w/w% - complicates incorporation into existing marine paint formulations
- Econea is said to have an unspecific mechanism of action, negative for the fouling
- Its properties limit the possibilities to combine with cuprous oxide (might explain their limited breakthrough)

The threat of phenylcapsaicin

The Swedish publicly listed company aXichem has patented the production of phenylcapsaicin, a synthetically engineered version of capsaicin, which is far less expensive to produce. While the initial focus of the company was the same as I-Tech, namely the marine antifouling industry, the current focus revolves more around the markets for animal feed and the nutraceuticals industry. However, aXichem is still active in the marine vertical.

aXichem states on its website that it *"in collaboration with established actors in marine antifouling and chicken food, has worked on the development of end products. These experimental products have been tested and developed under conditions that are as close to commercial use as possible under product development. The completed tests have yielded very good results, and aXichem's ongoing collaborations on product development continue."* In the company's Prospectus from January 2019, the company plans to send in a complete application to the EU at the start of 2019, for approval of aXiphen® in accordance with the EU BPR. To our knowledge, the company has not yet been approved.

Besides the antifouling market for marine vessels, aXichem announced a collaboration within fishing gears at the end of 2018. The company does not have an approved product in the EU but is able to work in other territories in the meantime. Chile is one such unregulated market, which is where aXichem is testing its product with the Norwegian company Brynsløkken. The aim is to make aXiphen-bio® work in the Notorius color; antifouling products that Brynsløkken sells to fish producers in the region, where Brynsløkken has a 40% market share.

We view aXichem as a potential competitor, although I-Tech currently is a few steps ahead as it has secured regulatory approval and signed two of the top six key players in the market of marine paint. aXichem has worked in the marine vertical for 10+ years, proving that the Biocide regulation is a tedious process. If aXichem would be approved and able to show a better antifouling effect, a more cost-efficient solution, or more environmental-friendly than Selektope, it has good potential to capture a certain part of the marine paint market. It could also be used to target the fishing gear niche, which could limit I-Tech's market opportunities.

¹⁷ <http://www.pettitpaint.com/media/4188/pettit-paint-technical-bulletin-econea-copper-free-biocide.pdf>

Financial estimates

Financial targets

Company targets:

- Sales of SEK 100m (or more) in 2021, i.e., 50% growth yearly
- Operational profitability in 2020 and beyond
- One new customer announcement during 2019.

Comments on targets

I-Tech's history as a listed company is short, which doesn't give much track record to follow-up. Still, up until this point, the company seems to be on good way to deliver on its ambitious targets set out during the IPO in May 2018.

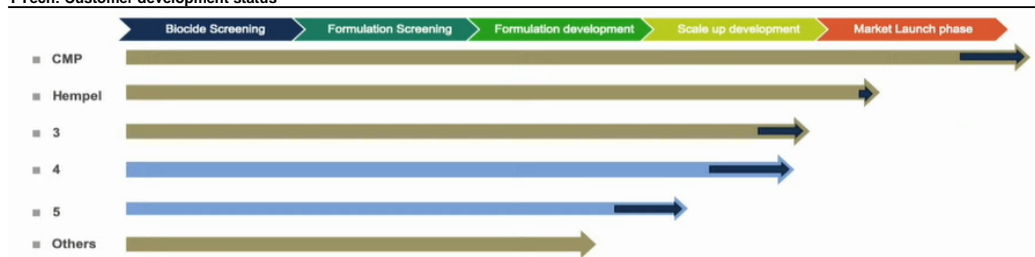
We expect the company to deliver on its target of signing a new customer during 2019. The progress with the undisclosed customer is confirmed by orders of Selektope for around SEK 2.5m in Q3'19, which we interpret as a large-scale test.

The sales target of SEK 100m in 2021 may seem high in relation to estimated sales of SEK 44m 2019. We argue that CMP has a high stake of interest in selling Selektope based products, which has been manifested in its marketing where Selektope has received an increasingly larger space. We estimate CMP increased sales efforts in combination with adding two new customers may lead to sales of around SEK 120m in 2021.

Financial forecasts

I-Tech has since the start performed a solid growth, albeit from low levels. With the largest order so far - SEK 57m from CMP in August 2019 - I-Tech is entering a new era. The major critical events are behind: validating Selektope and commercial launch on a large scale with a strong reference customer. There is variability between quarterly sales, explained by a low number of customers and when orders are booked, but no identifiable seasonality pattern. As sales might vary, we recommend evaluating the financial performance on a 12 months basis.

I-Tech: Customer development status

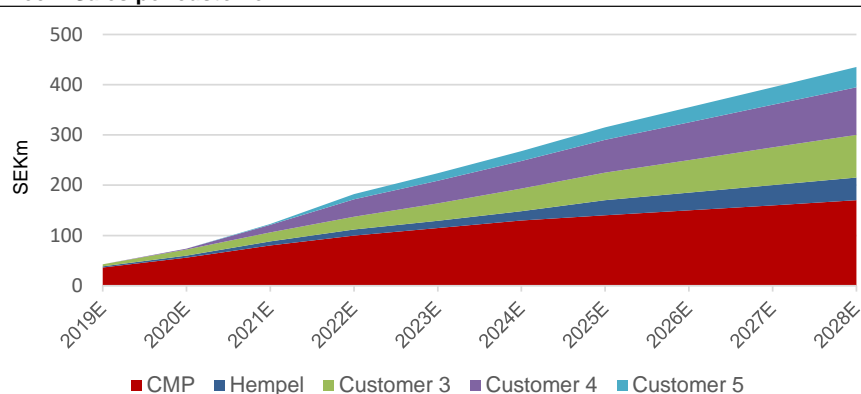


Source: I-Tech, Redeye research

Our key sales assumptions per customer:

- **CMP** continues to develop well, as indicated by the order volumes, marketing activity and commitment to Selektope. We expect CMP to continue to be the largest customer. In our base case, we conservatively estimate the delivery of the SEK 57m order to CMP in 2020. We estimate that sales scale up nicely to around SEK 100m in 2022 and reach maximum potential around yearly sales of SEK 170m in 2028.
- **Hempel** has so far shown low dedication to Selektope and represents a very small part of current sales. As of now, we are cautious and calculate with small but growing volumes from low levels, generating sales of SEK 8m in 2022.
- We estimate I-Tech to sign a **third customer** (Customer 3) before the end of 2019. We expect Customer 3 (International Paint, PPG or KCC) to ramp up slightly faster than CMP, as data, experience, and production are in place. Leading to sales of SEK 12m in 2020 and growing to yearly sales around SEK100m in the long-term.
- Our base case includes the signing of a **fourth customer** (as Jotun), in 2020 leading to sales of SEK 15m in 2021 and scales up to around SEK 100m in the long run (2028).
- We further estimate a **fifth smaller customer** signed in 2021 (as Nippon Paint), providing annual sales of around SEK 40m in the long run (2028).

I-Tech: Sales per customer



Source: Redeye Research

Base case scenario - Financial forecasts

SEKm	2018	Q1'19	Q2'19	Q3'19	Q4'19E	2019E	Q1'20E	Q2'20E	Q3'20E	Q4'20E	2020E	2021E	2022E
Net sales	29	6	13	12	13	44	17	19	19	23	76	125	184
COGS	-19	-3	-7	-7	-7	-24	-9	-9	-9	-11	-39	-63	-90
OPEX	-18	-5	-5	-5	-5	-20	-6	-6	-6	-7	-24	-30	-35
EBITDA	-6	-2	1	1	1	1	3	3	4	5	15	33	59
EBIT	-14	-4	-1	-1	-1	-7	1	2	2	3	7	25	52
Sales growth YoY, QoQ	62%	62%	36%	145%	20%	52%	167%	47%	51%	73%	73%	64%	47%
Gross margin	36%	44%	45%	48%	48%	46%	48%	49%	49%	50%	49%	50%	51%
EBITDA margin	-22%	-39%	9%	9%	8%	2%	16%	18%	21%	21%	19%	26%	32%

Source: Redeye Research

We expect a long-term gross margin of 55%

In terms of gross margins, we do not calculate with the possibility to increase the price on Selektape, as I-Tech yet has low negotiation power by being dependent on a few customers. As the process of production is more costly (even if outsourced) than in a large selling pharmaceutical company in general, we do not expect I-Tech to reach the pure biotech gross margins of +80%. Still, the company has after the acquisition of production IP-rights significantly increased its gross margins to 48% in Q3'19. In the long run, contingent on increased volumes and reduced costs that come with refined production/scaling, we argue that I-Tech could achieve a gross margin of up to 55% in our base case. Using the current production capacity, the company can scale up production fourfold.

No need for increased OPEX to significantly grow sales

I-Tech's business model is highly scalable. It only needs to service a handful of customers and has passed the largest barrier in terms of R&D and regulatory affairs. OPEX has gradually increased in the latest quarters, driven by a few new strategic employments. In the current setup, essential functions are seated, and we do not see an imminent need for additional employment. We recognize that the company, in the coming years, might employ additional sales/implementation personnel and thereby calculate with a yearly increase around SEK 2m. We expect other external costs to nominally increase as sales raise and as ongoing regulatory costs arise. We expect personnel and other external costs, divided by sales, to move from 40% FY18 to below 10% in FY21. Leading to OPEX/Sales falling below 20% in 2021 and after.

Solid cash position of SEK 40m

As of the end of Q3'19, I-Tech holds a solid financial position, a cash position of SEK 40m, and a current asset minus total debt position of SEK 34m. It is financed partly by loans from Energimyndigheten and ALMI totaling around SEK 10m with amortizations based upon net sales. As we estimate I-Tech to generate very strong cash flows in the coming years, we believe the current financing could easily be paid off. Further, we do not expect any sizeable investments into tangibles, and rather small figures into intangibles. In our bull case, we estimate I-Tech to enter the US recreational market with Selektape, which could require investments of around SEK 10m. We estimate sales-start in 2024 and estimate a yearly sales potential of SEK 80m in 2028.

Valuation

Our research outlines three scenarios, with the base case being the most likely. We also model bear and bull cases with corresponding key assumptions. This allows investors to compare our assessments with their perceptions. A wide range reflects high uncertainty.

Currently, we argue for a valuation range of SEK 40-140 with a base case of SEK 80 per share

Key model assumptions

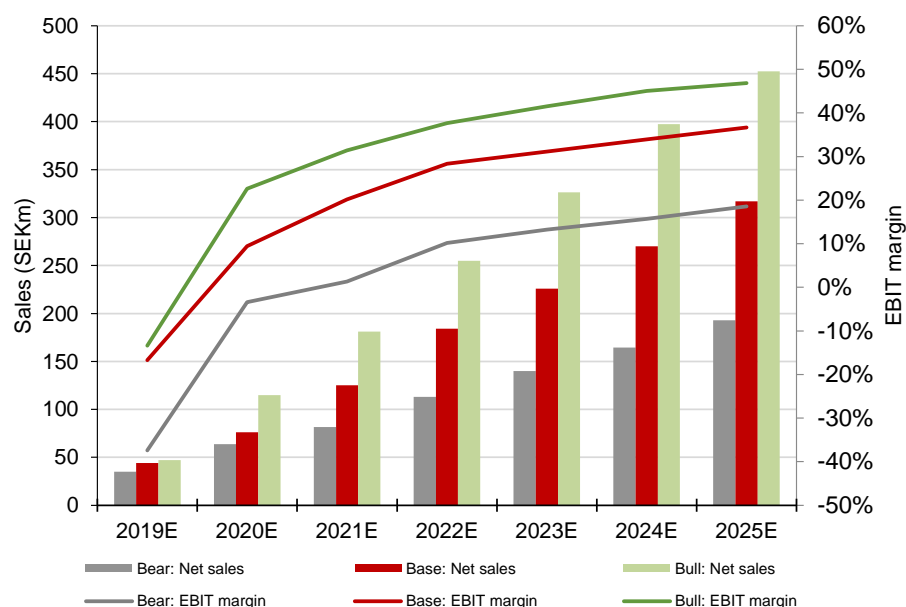
Required rate of return 12%.

A central part of our valuation is the required rate of return. Redeye uses a proprietary model to estimate a required rate of return that reflects the company's qualities and risks based on several parameters. In our rating of I-Tech, we estimate a WACC of 12%, which we apply across all three scenarios.

Additional points

- **No currency risks** - In line with the shipping industry, I-Tech trades in USD on both sales and cost side.
- **No seasonality effects** - There is no identifiable seasonality in I-Tech's sales
- **No sales to Fish Farming and Offshore** - As the business activity yet is low in Fish farming and Offshore, we do not model any sales from these business segments in our base and bear case scenario.
- **Tax rate** - We model with a tax rate of 21 %

I-Tech: Scenario comparison - Sales and EBIT margin



Source: Redeye Research

Base Case Scenario

Our estimates in a base case scenario are described in the financial forecast section above.

We argue that I-Tech, with a strong value proposition, is well-positioned for significant sales growth. We estimate a sales (CAGR) of 44% in 2019-2024, followed by 11% 2025-2028, to take a long-term market share of 5%, in the antifouling market by 2028. Besides the competitive offer, we believe that the company will benefit from several regulatory market drivers i) increasing fuel costs in the shipping industry (improving the investment calculation for premium antifouling) ii) a regulatory pressure to decrease marine fouling, i.e. prevent spread of invasive aquatic species.

Our base case sees Selektope being sold to five, of which four is "top 6" players within marine coatings. In total reaching yearly sales on average around SEK 87m per customer in 2028. With no sales from the additional potential business areas (Recreational, Fish farming, Offshore) as these areas are not a main priority as this point.

I-Tech's business is highly scalable with outsourced production and a low need for OPEX (currently nine employees) as they only need to service a handful of customers. With several moats protecting the business i) Regulatory barriers ii) Switching costs and also partly brand recognition as "Powered by Selektope". Considering these barriers, we expect a long-term gross margin of 55%, leading to I-Tech achieving a long-term EBIT margin of 35%.

I-Tech - Base case scenario			
Assumptions	2019-2024	2025-2028	DCF Value
CAGR Sales	44%	11%	WACC 12%
EBIT margin	18%	36%	Net present value of FCF 364
			Net present value of term v. 547
Terminal	2029-		
Sales growth	2%		EV 912
EBIT margin	35%		Net debt -20
			DCF Value 932
			Estimated fair value 80
			Current share price 55.40
			Potential/risk 44%

Source: Redeye Research

Bear Case Scenario

In our bear case scenario, CMP remains as the most important customer to I-Tech while a third customer is signed in 2020. Additionally, a fourth smaller customer is signed in 2021. The scenario does not include any sales from Recreational, Fish farming or Offshore.

Key differences:

- Our bear case scenario assumes a slower ramp-up in sales to existing customers as well as limited success in signing new ones. Leading to a market share of around 3% for Selektope in 2028.
- We assume weaker profitability due to i) lower sales volume ii) reduced prices on Selektope to customers. The negative effects on profitability are partly mitigated by a refined production process. The effects are coming down to a long-term gross margin of 45% and a terminal EBIT margin of 23%.
- **Customer differences:**
 - i) CMP ramps up modestly with maximum sales potential of SEK 140m yearly.
 - ii) Hempel scales up slow, reaching SEK 30m yearly sales in 2028.
 - iii) A third customer signed in 2020 also scale slower than in base case, leading to sales of SEK 12m in 2021, respectively SEK 55m in 2028.
 - iiii) A fourth smaller customer reaches sales of SEK 20m per year in 2028.

I-Tech - Bear Case Scenario			
Assumptions	2019-2024	2025-2028	DCF Value
CAGR Sales	36%	9%	WACC 12%
EBIT margin	0%	21%	Net present value of FCF 128
			Net present value of term v. 300
Terminal	2029-		
Sales growth	2%		EV 428
EBIT margin	23%		Net debt -20
			DCF Value 448
			Estimated fair value 40
			Current share price 55.40
			Potential/risk -28%

Source: Redeye Research

Bull Case scenario

Our bull case sees Selektape establishing a strong position in the antifouling market, being sold to five, whereof four is "top 6" players within marine coatings while reaching yearly sales on average around SEK 120m per customer in 2028, representing a market share around 8%. In our optimistic scenario, we also calculate with a successful market entry for recreational vessels in the US in 2024, leading to sales of SEK 80m in 2028.

Key differences:

- In our Base case scenario, the adoption process of Selektape in the industry is more rapid, leading to six signed customers with a faster ramp-up and higher maximum potential.
- We assume higher profitability due to larger sales volumes, limited competition, and a refined production process. All in all, leading to a long-term gross margin of 60% and with low OPEX need leading to high long-term EBIT margin of 45%.
- **Customer differences:**
 - i) CMP ramps up faster and re-orders already in Q2-Q3 2019. Reaches a higher maximum potential of around SEK 200m yearly sales in 2028.
 - ii) Hempel starts working more actively with Selektape, leading to long term sales of SEK 80m yearly (2028).
 - iii) The third customer signed in 2019, leading to a faster ramp-up of sales in 2020, with maximum potential of SEK 150m.
 - iiii) A fourth customer signed in 2020, yielding sales of SEK 20m in 2021, with a maximum potential of SEK 120m.
 - iiiii) A fifth customer signed in 2021, but with faster ramp-up and long term potential of SEK 60m.

I-Tech - Bull Case Scenario				
Assumptions	2019-2024	2025-2028	DCF Value	
CAGR Sales	53%	15%	WACC	12%
EBIT margin	27%	46%	Net present value of FCF	687
			Net present value of term v.	950
Terminal	2029-			
Sales growth	2%		EV	1 637
EBIT margin	45%		Net debt	-20
			DCF Value	1 657
			Estimated fair value	140
			Current share price	55.40
			Potential/risk	153%

Source: Redeye Research

Additional Catalysts

A change in regulation

Given that one of our largest counterpoints is that the ingredient, cuprous oxide, will remain as status quo, anything that changes this will unlock the enormous potential on the market for I-Tech's antifouling solution Selektope. As a result, we believe that any major backlash for cuprous oxide as a marine biocide, most likely tightened regulation, would have a significant impact on the I-Tech share.

Advancing into new product segments

Selling Selektope to fish farms, offshore rigs, and recreational boats provide a larger potential market. We argue that I-Tech currently should put full focus on seizing its vast opportunities within marine paint. Still, we recognize the long-term potential of Selektope and believe that the stock market would reward signs of I-Tech expanding into new verticals.

Buyout

I-Tech's unique offering could attract a bid on the company. We view large chemical firms like BASF most likely, as the payback time probably would be longer for a marine paint player (even though a marine paint player is not excluded). Since buyouts are unusual and hard to foresee, the possibility should not be a pillar for an investment in the company. Nevertheless, we want to highlight it as a potential major catalyst.

Summary Redeye Rating

The rating consists of three valuation keys, each constituting an overall assessment of several factors that are rated on a scale of 0 to 1 points. The maximum score for a valuation key is 5 points.

People: 4

I-Tech scores a four out of five in possible points in this section. On the positive side, we see business-oriented management with a sound strategy in place while focusing on long-term value creation. I-Tech's short history as a public company slightly limits the rating at this point.

Business: 3

I-Tech scores a three out of five in possible points in this section. I-Tech has a strong value proposition while benefiting from a highly scalable business model, high entry barriers and switching costs. On the downside, the company is heavily dependent on a few customers.

Financials: 2

The company scores two out of a possible five points in this section. We see that I-Tech has high growth and high profitability in prospect. The rating score is mainly limited due to the company's short track record of financial performance as a listed firm. To raise the rating, the company must maintain profitability over the next quarters.

Appendix 1: Market drivers in depth

International Maritime Organization (IMO) - 2020 global Sulphur limit

Until 31 December 2019, for ships operating outside Emission Control Areas, the limit for Sulphur content of ships' fuel oil is 3.50% m/m. For ships operating outside designated Emission Control Areas, IMO has set a limit for Sulphur in fuel oil used on board ships of 0.50% m/m (mass by mass) from 1 January 2020 while the average Sulphur content of today's heavy fuel oil (HFO) bunkers - the most common type of marine fuel burned today - is around 2.7%. This will significantly reduce the amount of Sulphur oxide emanating from ships and should have major health and environmental benefits for the world, particularly for populations living close to ports and coasts.^{18,19,20}

Effects

Since this will increase fuel costs for many shipowners, there are additional incentives to improve fuel efficiency. Effectively this means that the demand for quality antifouling paint is set to increase shortly. Thomson Reuters Research estimates fuel accounts for about half a ship's daily operating cost. Based on the average fuel consumption of 20 to 80 tonnes a day (MT/day), a ship using cleaner fuel faces extra daily expenses of about \$6,000 to \$20,000. For example, a VLCC, one of the biggest oil tankers at sea, will pay 25 percent more for its fuel, or an extra \$500,000 on top of normal bill of \$2 million, for a typical 25-day voyage from the Middle East to Japan.²¹

Solutions

An alternative solution instead of buying cleaner fuel is adding sulfur-cleaning devices known as scrubbers, allowing continued burning of high-sulfur fuel. Shipowners can also opt for other sources of cleaner fuel, such as liquefied natural gas (LNG). Shipowners can install kit called a "scrubber" that strips out Sulphur emissions and allowing them to use the dirtier fuel oil. But the equipment alone can cost \$1 million to \$6 million, according to manufacturer Wärtsilä, putting it out of reach of many operators. By 2020, about 2,000 ships could have scrubbers, according to Wärtsilä, SEB Bank, and industry analyst AlphaTanker. But AlphaTankers' Andrew Wilson called this a "drop in the ocean", given there are about 90,000 vessels in the global fleet, of which about 60,000 ply international routes. Based on the limited number of manufacturers and time constraints on facilities to install scrubbers, AlphaTanker estimates no more than 500 ships could be fitted each year. Wartsila puts the figure closer to 300.²²

Cheating as last alternative

Many vessels may try to dodge the new rules, unable to afford the cost of scrubbers, and reluctant to pay the premium for cleaner fuel. But how much of the industry will cheat is open to debate, with estimates ranging from 10 to 40 percent. The IMO says it will ban ships that do not have scrubbers from carrying any fuel oil, making it easier to catch cheaters. Oil major BP expects 10 percent of ships could cheat, while consultancy Wood Mackenzie expects a figure of about 30 percent when the rules launch in 2020.²³

Conclusion

When sourcing different estimates and projections from various industry sources, we see that all agree on raised costs in the shipping industry, which eventually will be passed onto end-consumers paying the price for raised shipping costs. We see that the increased fuel prices, for obvious reasons, will lead to an increased incentive to reduce fuel consumption. All in all, we believe that this event will increase the demand for fuel optimizing alternatives, such as premium antifouling and route planning tools.

¹⁸ <https://www.cnbc.com/2019/03/01/biggest-change-in-fuel-since-leaded-gas-went-away-could-raise-prices.html>

¹⁹ <https://www.seahawk-investments.com/2019/08/28/imo-2020-and-effects-on-the-shipping-industry/>

²⁰ <https://www.exxonmobil.com/en/marine/technicalresource/news-resources/imo-sulphur-cap-and-mgo-hfo>

²¹ <https://www.reuters.com/article/us-shipping-fuel-sulphur/new-rules-on-ship-emissions-herald-sea-change-for-oil-market-idUSKCN1II0PP>

²² <https://gcaptain.com/container-lines-face-extra-34-billion-from-low-sulphur-fuel-switch-if-owners-dont-install-scrubbers/>

²³ <https://www.reuters.com/article/us-shipping-fuel-sulphur/new-rules-on-ship-emissions-herald-sea-change-for-oil-market-idUSKCN1II0PP>

Appendix 2: Calypso study

Calypso Study: Data after 24-months

Premises:

- Premium cost per ship for Selektape based paint: USD 100,000
- Hull resistance fuel consumption increase: 0.15 ton/day/%
- Normal bunker consumption 25 ton per trading day
- Average 250 trading days per year
- Bunker fuel cost, USD 350 / ton
- Average 5 hull cleanings between coatings @ USD 35 000

Results:

- Average hull resistance reduced from 20% to 10% by use of Selektape
- Yearly cost savings of USD 170,000
- Payback time less than one year

Read the full 24-months presentation [here](#).

Added resistance - trend lines from Dry Dock



Ship A coated with a foul release coating type and ship B coated with an SPC type

Source: Laurin Maritime/I-Tech

Calypso Study: Data after 36-months

Looking at the data after 36-months it gets even more interesting (even if some measurement specifics vary, (fuel price, sailing time). The results are satisfying: "Data analysis confirms that the added resistance on the MR Tanker's hull and propeller due to fouling was exceptionally low compared to that expected for a reference ship of similar age, size and trading patterns." While also confirming the unique and specific protection: "This is proof that I-Tech's unique antifouling ingredient can offer ship operators using Selektope®-based antifouling coatings superior hard fouling prevention for any vessel regardless of its activity and trading patterns".

The results indicate yearly cost savings of 212,000, (payback time 0.5yrs) for choosing the Selektope based premium antifouling versus ship A coated with a foul release coating type and ship B coated with an SPC type.

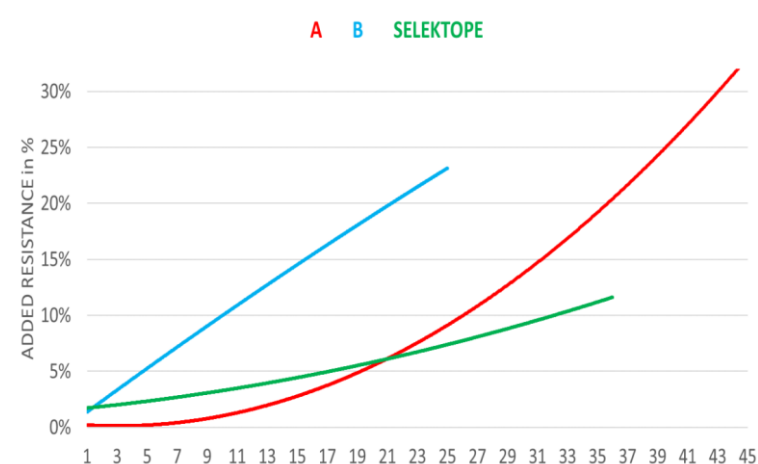
Premises:

- Additional cost for premium paint: USD 100,000 or USD 55/day
- Based on a fuel price of 500 USD/mt, with a 50% sailing time
- Months since latest dry-docking 36 months
- Months since latest hull cleaning 36 months
- Months since latest propeller polish 6

Results:

- Total added resistance: 12 %
- Hull added resistance: 8%
- Propeller added resistance 4%
- Saved on hull cleaning / 5 years: USD 35,000 or USD 20/day
- Savings in fuel per day: USD 1,200/day (vs B. 2.4mt/t day)
- Savings for 12 months USD 212,000

Added resistance - trend lines from Dry Dock



Source: I-Tech (Independent third party analysis)

Read the 36-months presentation [here](#).

INCOME STATEMENT	2017	2018	2019E	2020E	2021E
Net sales	18	29	44	76	125
Total operating costs	-24	-35	-43	-61	-92
EBITDA	-6	-6	1	15	33
Depreciation	0	0	0	0	0
Amortization	-1	-7	-8	-7	-8
Impairment charges	0	0	0	0	0
EBIT	-7	-14	-7	7	25
Share in profits	0	0	0	0	0
Net financial items	-1	0	0	0	0
Exchange rate dif.	0	0	0	0	0
Pre-tax profit	-8	-14	-7	7	25
Tax	0	0	0	-1	-5
Net earnings	-8	-14	-7	6	20

BALANCE SHEET	2017	2018	2019E	2020E	2021E
Assets					
<i>Current assets</i>					
Cash in banks	21	47	45	52	73
<i>Receivables</i>	4	8	10	15	25
Inventories	1	0	0	1	1
Other current assets	0	0	0	0	0
Current assets	25	55	55	68	99
<i>Fixed assets</i>					
Tangible assets	0	0	0	0	0
Associated comp.	0	0	0	0	0
Investments	0	0	0	0	0
Goodwill	0	0	0	0	0
Cap. exp. for dev.	0	0	0	0	0
0 intangible rights	35	68	61	56	51
0 non-current assets	0	0	0	0	0
Total fixed assets	35	68	61	56	51
Deferred tax assets	0	0	0	0	0
Total (assets)	60	124	116	124	150
Liabilities					
<i>Current liabilities</i>					
Short-term debt	10	9	2	0	0
Accounts payable	0	0	9	15	25
0 current liabilities	0	0	0	0	0
Current liabilities	10	9	11	15	25
Long-term debt	13	11	10	7	3
0 long-term liabilities	0	0	0	0	0
Convertibles	0	0	0	0	0
Total Liabilities	23	21	20	22	28
Deferred tax liab	0	0	0	0	0
Provisions	0	0	0	0	0
Shareholders' equity	37	103	96	102	122
Minority interest (BS)	0	0	0	0	0
Minority & equity	37	103	96	102	122
Total liab & SE	60	124	116	124	150

FREE CASH FLOW	2017	2018	2019E	2020E	2021E
Net sales	18	29	44	76	125
Total operating costs	-24	-35	-43	-61	-92
Depreciations total	-1	-7	-8	-7	-8
EBIT	-7	-14	-7	7	25
Taxes on EBIT	0	0	0	0	0
NOPLAT	-7	-14	-7	7	25
Depreciation	1	7	8	7	8
Gross cash flow	-6	-6	1	15	33
Change in WC	4	-4	7	1	0
Gross CAPEX	-1	-40	-1	-2	-3
Free cash flow	-3	-51	7	13	29

CAPITAL STRUCTURE	2017	2018	2019E	2020E	2021E
Equity ratio	62%	83%	83%	82%	81%
Debt/equity ratio	62%	20%	12%	7%	2%
Net debt	2	-26	-33	-45	-70
Capital employed	39	77	62	57	52
Capital turnover rate	0.3	0.2	0.4	0.6	0.8

GROWTH	2017	2018	2019E	2020E	2021E
Sales growth	5%	62%	52%	73%	64%
EPS growth (adj)	0%	-44%	-56%	186%	218%

DCF VALUATION		CASH FLOW, MSEK	
WACC (%)	12.0 %	NPV FCF (2018-2020)	37
		NPV FCF (2021-2027)	274
		NPV FCF (2028-)	601
		Non-operating assets	47
		Interest-bearing debt	-21
		Fair value estimate MSEK	938

Assumptions 2017-2023 (%)

Average sales growth	39.0 %	Fair value e. per share, SEK	80
EBIT margin	20.4 %	Share price, SEK	55.4

PROFITABILITY	2017	2018	2019E	2020E	2021E
ROE	-23%	-20%	-7%	6%	18%
ROCE	-12%	-14%	-6%	7%	22%
ROIC	-17%	-35%	-10%	12%	45%
EBITDA margin	-35%	-22%	2%	19%	26%
EBIT margin	-42%	-47%	-17%	9%	20%
Net margin	-47%	-47%	-16%	8%	16%

DATA PER SHARE	2017	2018	2019E	2020E	2021E
EPS	-2.42	-1.36	-0.60	0.52	1.66
EPS adj	-2.42	-1.36	-0.60	0.52	1.66
Dividend	0.00	0.00	0.00	0.00	0.00
Net debt	0.70	-2.57	-2.80	-3.82	-5.84
Total shares	3.48	10.10	11.91	11.91	11.91

VALUATION	2018	2019E	2020E	2021E
EV	640.4	626.4	614.3	590.2
P/E	-48.5	-91.7	106.1	33.4
P/E diluted	-48.5	-91.7	106.1	33.4
P/Sales	23.0	15.0	8.7	5.3
EV/Sales	22.1	14.2	8.1	4.7
EV/EBITDA	-100.2	691.4	42.3	17.9
EV/EBIT	-47.0	-85.0	85.5	23.4
P/BV	6.5	6.9	6.5	5.4

SHARE PERFORMANCE		GROWTH/YEAR	16/18E
1 month	30.1 %	Net sales	57.0 %
3 month	29.1 %	Operating profit adj	-0.5 %
12 month	-7.7 %	EPS, just	-50.0 %
Since start of the year	-16.1 %	Equity	61.0 %

SHAREHOLDER STRUCTURE %	CAPITAL	VOTES
Pomona-gruppen AB	11.4 %	11.4 %
Swedbank Robur Fonder	9.5 %	9.5 %
ALMI Invest	8.8 %	8.8 %
Länsförsäkringar Fonder	6.3 %	6.3 %
Handelsbanken Fonder	4.6 %	4.6 %
Göran Wessman	3.8 %	3.8 %
Stefan Sedersten	3.8 %	3.8 %
Unionen	3.8 %	3.8 %
Avanza Pension	3.1 %	3.1 %
Fontenelles Holding AB (Aquamarine Ltd)	3.1 %	3.1 %

SHARE INFORMATION	
Reuters code	ITECH.ST
List	First North
Share price	55.4
Total shares, million	11.9
Market Cap, MSEK	659.7

MANAGEMENT & BOARD	
CEO	Philip Chaabane
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IR	
Chairman	Stefan Sedersten

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Redeye Rating and Background Definitions

Company Quality

Company Quality is based on a set of quality checks across three categories; PEOPLE, BUSINESS, FINANCE. These are the building blocks that enable a company to deliver sustained operational outperformance and attractive long-term earnings growth. Each category is grouped into multiple sub-categories assessed by five checks. These are based on widely accepted and tested investment criteria and used by demonstrably successful investors and investment firms. Each sub-category may also include a complementary check that provides additional information to assist with investment decision-making. If a check is successful, it is assigned a score of one point; the total successful checks are added to give a score for each sub-category. The overall score for a category is the average of all sub-category scores, based on a scale that ranges from 0 to 5 rounded up to the nearest whole number. The overall score for each category is then used to generate the size of the bar in the Company Quality graphic.

People

At the end of the day, people drive profits. Not numbers. Understanding the motivations of people behind a business is a significant part of understanding the long-term drive of the company. It all comes down to doing business with people you trust, or at least avoiding dealing with people of questionable character. The People rating is based on quantitative scores in seven categories: Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board.

Business

If you don't understand the competitive environment and don't have a clear sense of how the business will engage customers, create value and consistently deliver that value at a profit, you won't succeed as an investor. Knowing the business model inside out will provide you some level of certainty and reduce the risk when you buy a stock.

The Business rating is based on quantitative scores grouped into five sub-categories: Business Scalability, Market Structure, Value Proposition, Economic Moat, and Operational Risks.

Financials

Investing is part art, part science. Financial ratios make up most of the science. Ratios are used to evaluate the financial soundness of a business. Also, these ratios are key factors that will impact a company's financial performance and valuation. However, you only need a few to determine whether a company is financially strong or weak. The Financial rating is based on quantitative scores that are grouped into five separate categories: Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality.

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Disclaimer

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Redeye Rating (2019-11-20)

Rating	People	Business	Financials
5p	11	10	2
3p - 4p	82	64	28
0p - 2p	10	29	73
Company N	103	103	103

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CONFLICT OF INTERESTS

Oskar Vilhelmsson owns shares in the company: No

Eddie Palmgren owns shares in the company: No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.